

Whitsunday Resource Operations Plan

Consultation Report

December 2011

Prepared by: Water Allocation and Planning, Department of Environment and Resource Management

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Message from the Deputy Director-General

This report summarises the issues that were raised prior to finalising the Whitsunday Resource Operations Plan 2011. It explains how the issues were assessed and considered in the final plan. In particular, the report focuses on the content of the formal submissions that were received following the release of a draft Whitsunday Resource Operations Plan in November 2010.

Advice from individual water users and their representative groups was invaluable in helping finalise the plan. The finalised plan sets out the day-to-day rules for the permanent or seasonal trading of water in the Proserpine River Water Supply Scheme together with the operating, environmental and water sharing rules for the scheme. One hundred and seventy four tradeable water allocations are created for water users supplied from Peter Faust Dam. Processes for releasing unallocated water are defined and processes for dealing with water licence applications and for granting or amending overland flow licences are established. In the Proserpine River, Kelsey Creek and Thompson Creek catchments, area-based water licences are being converted to volumetric-based water licences.

A number of submissions on the draft plan raised concerns about the water sharing rules for the Andromache River and O'Connell River catchments. After considering the submissions, the decision has been made to defer finalising the following provisions:

- the conversion of existing water entitlements on the O'Connell and Andromache rivers to tradeable unsupplemented water allocations and rules for water trading
- the amendment of existing water entitlements on the tributaries of the O'Connell and Andromache rivers to state volumetric limits rather than area-based limits
- the establishment of water sharing rules for all water entitlements on the O'Connell and Andromache rivers, and their tributaries.

The department remains committed to resolving the matters relating to the deferred provisions in close consultation with individual water users and their representative groups.

I would like to thank the groups and individuals for their contribution to the planning process, in particular those who lodged submissions on the draft plan. I trust that this report provides a useful record of how all input was considered.

Debbie Best

Deputy Director-General

Department of Environment and Resource Management

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1 Introduction

Purpose of this report

This report documents the consultation process undertaken by the Department of Environment and Resource Management (the department) in preparing the Whitsunday Resource Operations Plan (the plan).

The report also summarises the issues raised in submissions received through the formal consultation process that followed the release of the Draft Whitsunday Resource Operations Plan in November 2010 and how these issues were addressed in finalising the plan.

Plan area

The plan area, shown in Figure 1, corresponds to the Water Resource (Whitsunday) Plan 2010 (the water resource plan) area and includes the Proserpine River, Kelsey Creek and Lethe Brook, Thompson Creek, Andromache River, O'Connell River and Six Mile Creek subcatchment areas.

Background

Resource operations plans are essential to Queensland's water resource planning process. The primary function of a resource operations plan is to implement a water resource plan, which specifies the general goals and constraints needed for sustainable resource management.

Resource operations plans are developed to manage water resources from day to day in a way that maximises overall community benefits, while remaining consistent with the management rules of the water resource plan. Resource operations plans can be amended periodically—for example, to provide for the creation of new tradeable water entitlements and other factors that may not have been able to be addressed when the initial resource operations plan was prepared.

The respective functions of the two plans as strategic and operational parts of a single planning framework are reflected in provisions of the *Water Act 2000* (the Water Act). While the Minister for Finance, Natural Resources and The Arts (the minister) is responsible for preparing water resource plans, the chief executive of the department is responsible for preparing the resource operations plans that implement them.

In implementing the requirements of the water resource plan, the resource operations plan is consistent with the goals and requirements of the Australian Government's National Water Initiative and complementary to other state and federal government agreements and commitments.

The Whitsunday Resource Operations Plan implements the water resource plan by:

- establishing 174 tradeable water allocations in the Proserpine River Water Supply Scheme, separate from land titles
- granting a resource operations licence to SunWater Limited and a distribution operations licence to the Kelsey Creek Water Board and to the Six Mile Creek Water Supply Board
- specifying operating, environmental and water sharing rules for the Proserpine Water Supply Scheme
- specifying rules for the permanent trading of and seasonal assignment of supplemented water allocations
- establishing processes for releasing and granting unallocated water
- amending existing water licences in the Proserpine River, Kelsey Creek and Thompson Creek subcatchments to include volumetric limits
- defining a process for dealing with water licence applications
- establishing a process to grant or amend overland flow water licences
- specifying monitoring and reporting arrangements for the department and for water infrastructure operators
- identifying triggers and processes for contemplated amendments to the plan.

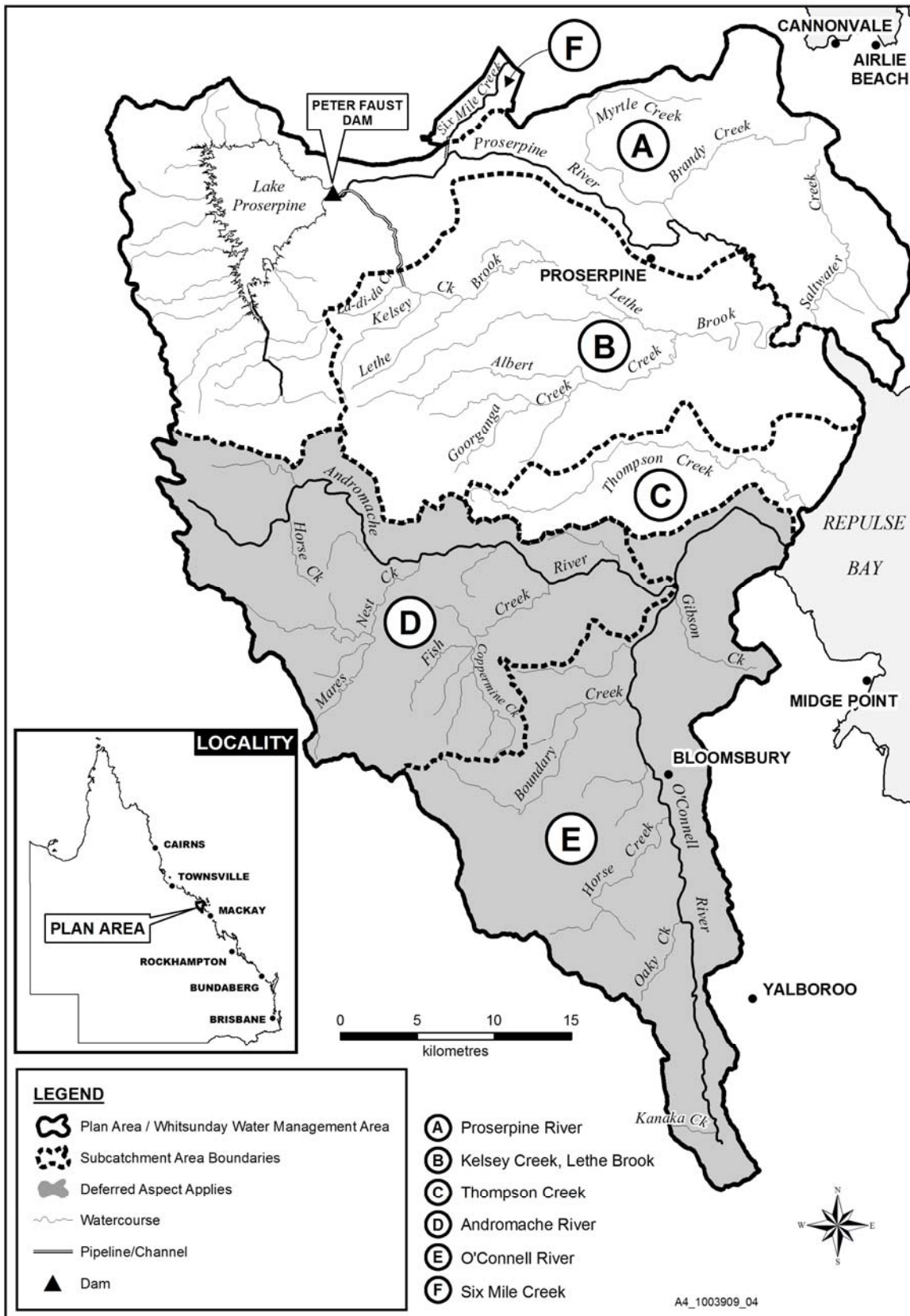


Figure 1. The Whitsunday plan area, including subcatchments areas

Community consultation

Community consultation was fundamental to developing the draft and final resource operations plans. Stakeholder information sessions and other consultation initiatives, including meetings with individual water users and stakeholder groups were held.

There were two opportunities for the public to make submissions about the plan's development.

Submissions about the intention to prepare a draft plan were formally invited at the outset of the resource operations planning process in September 2008. In addition, at that time the SunWater, the Kelsey Creek Water Board and the Six Mile Creek water Supply Board who operate water infrastructure for the management of water to which the proposed plan was intended to apply were required to submit proposals for operating the infrastructure in accordance with section 97 of the Water Act.

Submissions were also invited when the draft plan was released for public comment on 17 November 2010 and were accepted until 11 February 2011. Information sessions with key stakeholders were held in Proserpine and Bloomsbury shortly after the draft plan release to explain the provisions of the draft plan and to provide detailed information that would be useful to individuals in making a submission. Additional meetings to discuss the draft plan were held on request, following receipt of submissions, in Proserpine in March and July 2011, and in Brisbane during July 2011.

Government consultation

Relevant Queensland Government agencies were consulted when the plan was being finalised. Mackay and Whitsunday regional councils, as the relevant local government authorities for the plan area, received copies of the draft plan as required under section 100(5) of the Water Act and were invited to comment on the provisions.

The resource operations plan referral panel

An independent resource operations plan referral panel (the referral panel) was established to review the issues raised in submissions received on the draft plan. The referral panel members represented a range of interests and were selected for their knowledge of water resource planning in Queensland, their analytical and problem-solving skills and their ability to formulate recommendations and solutions for dealing with issues raised in submissions.

To strengthen the referral panel's objectivity, members were drawn from outside the plan area.

Section 102 of the Water Act sets clear parameters for the role and responsibilities of the referral panel. The referral panel made recommendations for issues raised in submissions which were within the panel's roles and responsibilities. Issues were not referred to the panel if:

- they related to the water resource plan (that is, if the issue raised was related to an issue that had previously been dealt with in the water resource plan)
- they were not relevant to a proposed water allocation, environmental management rule, water sharing rule or an implementation schedule (as defined by section 102(1) of the Water Act)
- they were inconsistent with the outcomes and objectives of the water resource plan
- the chief executive was satisfied that the draft plan should be amended in accordance with a submitter's proposal.

All properly made submissions were analysed and collated by the department before being referred to the referral panel.

The chief executive considered the referral panel's recommendations in finalising the plan.

The need to defer aspects

The draft plan included water sharing rules for water entitlement holders on the Andromache and O'Connell rivers and their tributary streams. The rules proposed a staged reduction in the daily volume of water that a water entitlement holder could take as streamflow levels continued to fall.

In considering submissions on the draft plan, a review of these proposed water sharing rules was undertaken by the department, which highlighted some inequities between upstream and downstream water users.

During July and August of 2011, the department met with irrigators, Proserpine Canegrowers and the Queensland Farmer's Federation to discuss the various challenges in establishing equitable water sharing arrangements. It was apparent that a better outcome could be achieved by allowing additional time to fully consider alternative options for water sharing and to allow for further discussions with affected water users and their organisations.

On 5 August 2011, Proserpine Canegrowers submitted a letter to the department requesting a deferral of unsupplemented water provisions for the Andromache River and O'Connell River subcatchments.

The department has listened to this request from Proserpine Canegrowers and, following a review of the relevant submissions and the recommendations of an independent referral panel, the chief executive has made a decision under section 103(3) of the Water Act to defer provisions relating to:

- the conversion of existing water entitlements on the O'Connell and Andromache rivers to tradeable unsupplemented water allocations and rules for water trading
- the amendment of existing water entitlements on the tributaries of the O'Connell and Andromache rivers to state volumetric limits rather than area-based limits
- the establishment of water sharing rules for all water entitlements on the O'Connell and Andromache rivers, and their tributaries.

Some provisions relating to the Andromache and O'Connell river subcatchments are not being deferred from the final plan as they are not affected by the deferral or would not compromise any future consideration of the deferred aspect. Provisions that are progressed to finalisation include:

- dealing with water licence applications to interfere with, or increase the interference with water, or to take water for stock and domestic purposes
- those relating to unallocated water reserves
- those relating to groundwater and overland flow water.

The deferral provides additional time for the department to work with stakeholders to resolve the matters relating to the deferred provisions. In the meantime, water users who are affected by the deferred provisions can continue to take water in accordance with their entitlement terms and conditions, and any requirements under the Water Act.

There was no reason to put the finalisation of the plan on hold for all other aspects of the plan as the matters relating to the deferral were specific to water entitlements to take water from the Andromache River, O'Connell River and their tributaries. There were significant water security and flexibility benefits to be gained by proceeding with the finalisation of the plan for the other aspects, including the establishment of tradeable water allocations in the Proserpine River Water Supply Scheme and the better specification of water licences in the Proserpine River, Kelsey Creek and Thompson Creek subcatchments.

Where to obtain a copy of the plan

The finalised plan, gazetted on 9 December 2011, can be obtained from departmental offices in Mackay or the department's website at <www.derm.qld.gov.au/wrp/whitsunday>.

2 Issues raised in submissions

A total of 14 submissions were received on the draft plan. The majority of submissions related to the proposed water sharing rules for supplemented water, monitoring and reporting requirements, and processes for releasing unallocated water to meet future water demands.

Each submission was assessed for its consistency with the water resource plan and whether it was an issue that could be dealt with under the jurisdiction of the resource operations plan. The department reviewed and analysed all the submissions received. All submissions were recorded, assessed and validated, including assessment against the water resource plan.

This chapter summarises the key issues raised, relevant background information relating to each issue, the relevant draft plan provisions, and how the issues were addressed in finalising the plan.

2.1 Unallocated water

Unallocated water is water that can be made available for future consumptive use without compromising the water needs of the environment or the security of supply to existing water users.

The water resource plan identifies general and strategic reserves of unallocated water to meet the additional water needs of the plan area for the 10-year life of the plan. This includes a general reserve of 9500 megalitres in the Kelsey Creek and Thomson Creek subcatchments, and a general reserve of 19 000 megalitres in the Andromache and O'Connell River subcatchments. The water resource plan also sets aside a strategic reserve of 500 megalitres to be shared across the Kelsey Creek and Thomson Creek subcatchment areas, and establishes a strategic reserve of 1000 megalitres across the Andromache and O'Connell River subcatchments.

The draft plan states that unallocated water will be released in accordance with the process prescribed in part 2 division 1C of the Water Regulation 2002 (the Regulation). The draft plan did not propose to constrain the release of water to any type of water, such as water in a watercourse, lake or spring, groundwater or overland flow water.

Reserving unallocated water

The issues

Two submitters requested that unallocated water be set aside for specific purposes, including the development of a potential O'Connell River Weir and for water harvesting or dewatering activities in Kelsey Creek subcatchment (subcatchment B).

How the issues were assessed

The water resource plan has already established the volumes of unallocated water reserved, which took into consideration the anticipated demands for additional water over the 10-year life of the water resource plan. As there are no current plans to develop a weir on the O'Connell River, limiting the use of a large proportion of the available unallocated water to such a development was not considered to be appropriate. Nonetheless, the provisions of the resource operations plan do not preclude the possibility of a weir development if it was consistent with the water resource plan requirements and complied with State and Commonwealth environmental assessment requirements.

Unallocated water has already been set aside in the Kelsey Creek subcatchment (subcatchment B). The water is not restricted to a particular purpose and could accommodate additional demands such as waterharvesting or dewatering if the submitter were successful in acquiring unallocated water.

The finalised plan

The plan's provisions remain unchanged. The performance of the water resource plan and resource operations plan in achieving plan outcomes and objectives will be reviewed annually. This presents an opportunity for the department to determine whether the plan makes sufficient provision for emerging water demands either through the existing water entitlements, alternative water sources or unallocated water reserves.

Process for releasing and granting unallocated water from the general reserve

The issues

A submitter requested unallocated water be released from the general reserve in the Kelsey Creek and Thompson Creek subcatchments (subcatchments B and C).

Concerns were raised by a submitter that the use of an auction or tender process to release unallocated water may inflate the price of water. Another submitter requested that the release process be further clarified in the plan, especially in terms of demonstrating there is demand for releasing unallocated water.

There was also a request that when making unallocated water available, preference is given to landholders that had already invested in infrastructure prior to the moratorium on new works first coming into effect in 2006.

How the issues were assessed

The release process proposed in the draft plan will ensure the broadest community benefit arises when unallocated water is made available. Generally, unallocated water will only be released after alternative ways of meeting demand have been explored. This includes assessing whether the water needed to meet demand can be obtained by trading or using existing supplies more efficiently.

If a decision is made to release unallocated water, the volume released will be guided by the overall amount of unallocated water that could be made available; the current and anticipated level of demand for water; and any existing regional planning or water supply strategies for the area.

The draft plan, in referring to the process described in the regulation for a competitive release, will ensure that water moves under market forces to its highest value use.

The licence applications that were placed on hold by the moratorium were a source of information in guiding the volumes of unallocated water reserved under the water resource plan. The resource operations plan sets a process for dealing with these applications. For those applications that were seeking additional water entitlement, the applications are required to be refused and the applicant would need to participate in an unallocated water release process with any other interested parties.

The applications on hold under the moratorium were made under very different circumstances—they were made before the water resource plan had defined the sustainable availability of water and they were made before the requirement of a market-based process for gaining access to additional water. These changes to the way water is now allocated warrant the establishment of equal footing for all interested parties to make their case through participating in a release of unallocated water process.

A competitive release would formally commence through the publication of a notice in newspapers circulated in the relevant area. The public notice will detail where an interested person may obtain more information relating to the tender or auction, including the amount of water available and the conditions of sale. A competitive process ensures there is no preference or bias in the release of unallocated water and those who are interested in obtaining additional water have an equal opportunity to do so.

The finalised plan

The plan's provisions with regard to the stated process for the release of unallocated water are unchanged, and the reserves stipulated in the water resource plan also remain unchanged in the final resource operations plan.

Terms and conditions for entitlements granted from unallocated water

The issue

Two submitters were concerned that if unallocated water was granted as a water harvesting entitlement only, there would be associated costs for landholders in developing new water infrastructure.

One submitter stated that, as an alternative to requiring new entitlements to be water harvesting entitlements, issues associated with maintaining adequate flows in-stream could be managed by imposing pass flow conditions on in-stream storages.

How the issues were assessed

The draft plan did not require releases of unallocated water, held as general reserve, to be issued as water harvesting entitlements only. The terms and conditions of any water entitlements granted from unallocated water will be tailored to the specific attributes of the relevant subcatchment to ensure there are no adverse affects on existing water entitlement holders and that the water security objective and environmental flow objectives of the water resource plan can continue to be achieved.

The finalised plan

The plan's provisions are unchanged from this perspective. However, because certain aspects of the final plan have been deferred, all existing water entitlements in the Andromache and O'Connell river subcatchments will remain as water licences. Therefore any unallocated water granted will only be in the form of water licences and not as water allocations and water licences as was proposed in the draft plan.

2.2 Announced allocations for the Proserpine River Water Supply Scheme

Background

The draft plan detailed water sharing rules for the Proserpine River Water Supply Scheme to be implemented by the resource operations licence holder (SunWater Limited) to determine water availability for water allocation holders associated with the scheme.

A key component of the water sharing rules for supplemented water allocations is the announced allocations. An announced allocation is a number, expressed as a percentage, which is used to determine the proportion of a water allocation that may be taken in a given water year, based on how much water is available to be shared among allocation holders.

For the Proserpine River Water Supply Scheme, priority groups for water allocations are as follows:

- Water allocations supplied in the Six Mile Creek Water Supply Board are medium priority group A2.
- Water allocations supplied in the Kelsey Creek Water Board are medium priority group A3.
- Water allocations held for distribution loss are included in priority group A1.
- All other water allocations are priority group A (for high priority water) or priority group A1 (for medium priority water) for supply to the Proserpine River.

The draft plan provisions

The water sharing rules for the Proserpine River Water Supply Scheme outlined in the draft plan proposed an announced allocation for each priority water allocation group. The announced allocation determines the amount of water in the Peter Faust Dam that is available to each priority group, and consequently each water allocation holder, at a given point in time. The draft plan stated formulae that are to be used for calculating the announced allocations, and defined the parameters that need to be used when calculating these announced allocations.

The announced allocation formulae differ between priority groups and, in the case of the Kelsey Creek and Six Mile Creek water boards, also factor in water losses associated with the distribution of water to water allocation holders in the respective board areas.

Section 94 of the draft plan outlined the proposed responsibilities of the resource operations licence holder in determining the announced allocation for each priority group in the Proserpine River Water Supply Scheme. On the first day of the water year, 1 July, the resource operations licence holder is required to set an announced allocation percentage for each priority group. The announced allocation must be recalculated and reset during a water year in response to inflows to Peter Faust Dam or due to other factors that would increase the announced allocation. The draft plan also proposed that the announced allocations be reset if a recalculation increased the announced allocation by five or more percentage points or increased it to 100 per cent for any priority group. The announced allocation cannot be reduced during a water year as a result of the recalculation or resetting.

The water sharing rules outlined in the draft plan granted medium priority water allocation holders the option of carrying over any unused portion of the water allocation water from one water year to the next. The carry over

volume was required to be the lesser of either 25 per cent of the total nominal volume for the scheme, or 90 per cent of the total volume of unused water for the scheme at the end of the water year. For medium priority water, carry over was only permitted if the water level in the Peter Faust Dam was at or above 72.16 metres AHD (Australian Height Datum). Any volume carried over at the start of the water year can be used in the first six months of that water year and is lost if the Peter Faust Dam spills. These carry over rules reward water efficiency, while protecting high priority water, which is not carried over, and ensuring that all water allocation holders benefit from a situation that results in the dam reaching maximum capacity.

The water sharing rules outlined in the draft ROP also included provisions that permit the resource operations licence holder to prepare and submit critical water supply arrangements for approval. These critical water supply arrangements can be used to protect critical high priority water supplies during very dry periods.

Resetting the announced allocations

The issue

One submitter requested an amendment to the rules (section 94 of the draft plan) for resetting the announced allocations over the course of the water year for the water allocations distributed by the water boards in the Proserpine River Water Supply Scheme. In particular, the submission was concerned with the requirement to reset the announced allocation when the recalculation results in 100 per cent. Primarily, the concern was that 100 per cent exceeded the maximum possible announced allocation that could be made for the water allocations distributed by the board because distribution losses needed to be accounted for.

The submitter suggested that instead of 100 per cent, the announced allocation should be reset when the recalculation of the announced allocation for water allocations supplied by the Six Mile Creek Water Supply Board (priority group A2) increases to 90 per cent. Similarly, the announced allocation for water allocations supplied by the Kelsey Creek Water Board (priority group A3) should be reset when the recalculation reaches 75 per cent.

How the issue was assessed

Because the availability of water is different for each priority group in the Proserpine River Water Supply Scheme, the announced allocation must account for these differences.

Distribution loss allocations have been granted to each of the water boards under the Water Resource (Whitsunday) Plan 2010. The distribution loss allocation volume for Six Mile Creek Water Supply Board reflects 10 per cent of the total nominal volume for all water allocations distributed by the board. Similarly, the distribution loss allocation volume for Kelsey Creek Water Board reflects 25 per cent of the total nominal volumes for its customers' water allocations.

It was considered that there needed to be improved accounting for the distribution loss allocations in the announced allocation formulae to ensure that the percentages calculated were achievable.

What the final plan says

The final plan has been amended to require the resetting of the announced allocation when the recalculation of the announced allocation increases to 90 per cent for water allocations supplied in the Six Mile Creek Water Board Supply Area (priority group A2) and 75 per cent for water allocations supplied by the Kelsey Creek Water Board (priority group A3). Minor amendments to the drafting of the provisions have been made to clarify the conditions under which announced allocations will be reset for the different priority groups.

Correcting an error in the announced allocation formulae for priority groups 2 and 3

What the draft plan proposed

Table 4 in the draft plan included four different formulae for determining the announced allocation for each priority group. Formula 3 showed a multiplication factor of 0.9 for the announced allocation for priority group A2 and formula 4 showed a multiplication factor of 0.75 for the announced allocation of priority group A3.

The issue

The submitter requested an amendment to Table 4 formulae 3 and 4 to correct the factors used in the announced allocation formula for priority groups A2 and A3 so that the formula 3 showed a multiplication factor of 90 for the announced allocation for priority group A2, and formula 4 showed a multiplication factor of 75 for the announced allocation of priority group A3.

The submitter also requested that the formulae for A2 and A3 priority group allocations be simplified so that the announced allocation is determined for priority groups A2 and A3 by calculating 90 per cent and 75 per cent, respectively, of the announced allocation for priority group A1.

How the issue was assessed

The multiplication factor used in the draft plan for calculating the announced allocation for priority groups A2 and A3 are erroneous. The multiplication factor should be 90 and 75 respectively.

In respect of the submitter's proposal to simplify the formula for priority groups A2 and A3, this is not supported as the submitter's proposed formula is based on an assumption that the announced allocation for priority groups A2 and A3 are a function of the announced allocation for priority group A1. The announced allocation for priority groups A2 and A3 is calculated using announced allocation Table 3, formulas 3 and 4.

What the final plan says

The final plan has been amended to correct the multiplication factors in formulae 3 (multiplication factor of 90) and 4 (multiplication factor of 75) in Table 4.

Clarifying the definitions of parameters used in the announced allocation formulae

The issue

The submitter requested an amendment to the definition of transmission and operational losses for water allocations to clarify that they apply when calculating the announced allocation for all medium priority water allocations.

In the draft plan, 'M' in the announced allocation formulae is defined as the total nominal volume of medium priority water allocations. Medium priority water allocations belong to priority group A1, priority group A2 and priority group A3.

One submitter stated that the total nominal volume of all medium priority water allocations (40 876ML) cannot be supplied to end users in a water year. The most water a water allocation holder in priority group A2 will receive is 90 percent of the nominal volume on their water allocation and the most water a water allocation holder in priority group A3 will receive is 75 percent of the nominal volume on their water allocation. The announced allocation formulae for priority groups A2 and A3 reflect this. Because of the cap applied to water allocations in priority group A2 and A3, the definition of 'M' should be amended to recognise the volume of water that can be supplied under an announced allocation and not the total nominal volume of all medium priority water allocations.

How the issue was assessed

Table 5 in the draft plan stated the definition of transmission and operational allowance for medium priority water allocations. The draft plan provides a definition for transmission and operational allowance for water allocations as an allowance for transmission and operational losses expected to occur in delivering high and medium priority water allocations through the Proserpine River, from the beginning to the end of a water year. The transmission and operational allowance figures to be applied when calculating the announced allocation for all medium priority water allocations are determined by making a linear interpolation of the figures in Table 8 of the draft plan. The same figures are required to be used for all medium priority water allocation groups: A1, A2, and A3 priority groups.

The department agrees that the definition should be amended to clearly state that the transmission and operational allowance figures contained in Table 8 are to be used for all medium priority groups.

The department agrees that the definition of 'M' in Table 5 of the draft plan should be amended to recognise the total nominal volume of medium priority water allocations is that which can be supplied under an announced allocation. The total nominal volume of medium priority water allocations which can be supplied under an

announced allocation, and not the total nominal volume of all medium priority water allocations, is the figure to be used when calculating the announced allocation for priority groups A1, A2 and A3.

What the final plan says

Due to other amendments of the draft plan, Table 5 of the draft plan has been renumbered to Table 4 in the final plan to reflect other amendments to the draft plan. Table 4 in the final plan has been amended to clarify the definition for transmission and operational allowance for water allocations.

The definition has been amended to state that 'M' is the total nominal volume of medium priority water allocations which can be supplied under announced allocation. This means that 'M' is the sum of 100 per cent of the nominal volumes of priority group A1, 90 per cent of priority group A2 and 75 per cent of priority group A3.

Accounting for transmission and operational allowance in announced allocation formula for water allocations in priority group A3 (Kelsey Creek Water Board supply area)

The issue

One submitter objected to the inclusion of the transmission and operational allowance in formula 4 that is used to calculate the announced allocations for water allocation holders in the Kelsey Creek Water Board area (priority group A3). The submitter states that the transmission and operational allowance should not apply to the calculation of the announced allocation for this priority group because the transmission and operational allowance pertains to water taken directly from the Proserpine River in subcatchment A, after it is released from Peter Faust Dam.

In supplying water to their customers, the Kelsey Creek Water Board take water directly from the dam and do not take any water from Proserpine River. It was argued by the submitter that the board's distribution losses are already accounted for in the water allocations held by each water board for distribution losses.

How the issue was assessed

In the Proserpine River Water Supply Scheme, there are three types of loss recognised in the draft plan: storage loss, distribution loss, and a transmission and operational allowance.

Transmission and operational allowance is the loss through natural stream channels in the Proserpine River, including seepage, filling of waterholes, evaporation and evapo-transpiration. Transmission and operational allowance is strictly not considered a 'loss'—it is an amount required to supply water to downstream users in the Proserpine River. In addition to the loss through seepage and riparian access, transmission and operational allowance is also the amount of water required to maintain basic riverine processes, as well as changes in flow volumes as water naturally moves downstream.

Distribution loss is the loss of water throughout the Kelsey Creek and Six Mile Creek water board's pipelines, and in channels and natural waterways downstream of these pipelines. The distribution loss is the loss in each water board's area after the water is taken from the Proserpine River, in the case of Six Mile Creek, or after it is taken directly from the dam, in the case of Kelsey Creek.

Storage loss, distribution loss, and transmission and operational allowance all need to be accounted for before any water can be allocated from the dam to downstream users. This is a minimum requirement for the scheme to operate (i.e. to meet water allocation requirements) and to meet environmental flow objectives and water allocation security objectives. This prevents an over commitment of water from the dam and ensures security of supply for all users, and that high priority water needs are maintained.

The transmission and operational allowance is a minimum volume of water that must flow down the Proserpine River to make the scheme functional and meet requirements of the water resource plan. For this reason, it is not optional. The transmission and operational allowance has been factored into the announced allocation formulae 2, 3 and 4 in the draft plan. This approach ensures that the minimum operational requirements and all losses are first accounted for before determining the volume of water in the dam that is available to all users. The distribution losses in the respective water board areas are provided for through specific water allocations in the priority group A1, and therefore do not need to be factored into the announced allocation formula.

After considering the issues raised by the submitter, the proposed method for determining the announced allocation for all medium priority water allocations presents a simple and equitable way of considering all losses and the minimum operational requirements at the dam before allocating water to users.

The issue was reviewed by an independent referral panel which recommended that the method proposed for calculating the announced allocation for the Kelsey Creek in the draft plan be maintained.

What the final plan says

The plan's provisions relating to announced allocation formula 4 are unchanged.

2.3 Carry over rules for Proserpine River Water Supply Scheme

The draft plan proposed that a water user in the Proserpine River Water Supply Scheme be permitted to carry over part of their unused volume of water from one water year into the next water year.

In determining the total volume of unused water permitted to be carried over, the total volume of water carried over was proposed to be the lesser of 25 per cent of the total nominal volume for the scheme and 90 per cent of the total volume of unused water for the scheme at the end of the water year. If the former volume was the lesser of the two, then the draft plan proposed that resource operations licence holder publish the methodology for determining the permitted carry over volume on its website.

The carry over volume is lost once six months of the water year elapses, or if Peter Faust Dam spills.

Cancelling carry over when Peter Faust Dam spills

The issue

Three submitters raised concerns about the proposed provisions in the draft plan that require any volumes of carry over to be cancelled when the Peter Faust Dam spills. The submitters argued that the unused water should be available to the water user at any time.

How the issue was assessed

The provision of carry over provides a short-term opportunity for allocation holders to use any unused water during the first six months of the next water year, which includes the Whitsunday's dry season.

However, carry over is not intended to provide a system of continuous 'banking' of water from one water year to the next. The cancellation of carry over when Peter Faust Dam spills provides equity for all water users in the water supply scheme by allowing all users to benefit from the dam being at full capacity.

Cancelling carry over when the dam spills allows for the maximum announced allocations for each priority group to be realised, thereby contributing to the overall long-term security of all water allocations in the scheme.

The issue was reviewed by an independent referral panel which recommended that the carry over rule proposed for Peter Faust Dam is set to zero after six months into the water year or when the dam spills.

What the final plan says

The plan's provisions are unchanged.

Publishing carry over methodologies on the resource operations licence holder's website

The issue

One submitter requested that the publishing requirements for the resource operations licence holder to publish the methodology for calculating carry over volumes be clear that the requirement applies in determining each water users' carry over volume.

How the issue was assessed

The department reviewed the drafting of the publication requirements for the carry over provision (section 98, subsection 4) and the provision is considered to provide sufficient clarification that the requirement applies for each water user.

What the final plan says

The plan's provisions are unchanged in response to the submission issue. However, the carry over provisions have been changed to clarify that water users rather than water allocation holders may carry over part of the unused water. This change makes it clear the users taking water under seasonal water assignment arrangements are eligible to carry over part of their unused water.

2.4 Water trading and seasonal water assignment in the Proserpine River Water Supply Scheme

The draft plan establishes four zones in the Proserpine River Water Supply Scheme. The trunk of the Proserpine River is split into two zones: Proserpine zones A and B. Proserpine zone C represents the area where the Six Mile Creek Water Board distributes water and Proserpine zone D represents the area where Kelsey Creek Water Board distributes water. The establishment of zones provides delineation for permanent trading and seasonal water assignment arrangements in the Proserpine River Water Supply Scheme.

Maximum volume permitted to be traded for priority group A in Proserpine zone A

The issue

The draft plan proposed that the maximum total nominal volume of water held under priority group A water allocations be capped at 16 357 megalitres for Proserpine zone A, thereby setting a limit for trading in this zone for priority group A. One submitter requested that this maximum volume be increased to 18 750 megalitres to accommodate the possibility of a future water treatment plant near Peter Faust Dam.

How the issue was assessed

The construction of a water treatment plant near the Peter Faust dam was previously considered by the Whitsunday Regional Council for meeting growth in water demands in the region. More recently, council's Whitsunday Water Strategy (2011)¹ indicates a preference for alternative options outside Proserpine zone A. Consequently, a larger permitted maximum volume than was proposed for Proserpine zone A in the draft plan is not required at this time.

What the final plan says

The plan's provisions are unchanged.

Maximum volumes permitted to be traded in the Six Mile Creek and Kelsey Creek water board zones

The issue

The draft plan proposed to set the maximum total nominal volume of water held under water allocations in Proserpine zone C (Six Mile Creek Water Supply Board area) and zone D (Kelsey Creek water board area) to be 3000 megalitres and 10 000 megalitres respectively, thereby setting the limit for permanent trading in these zones.

The draft plan proposed that for zone C, an additional 1500 megalitres was permitted to be held under seasonal assignment and an additional 5000 megalitres could be held under seasonal assignment in zone D.

Two submitters requested that the additional volumes contemplated for seasonal water assignments for both zone C and D also apply for permanent water trades.

¹ At the time of publication of this Consultation Report, the Whitsunday Regional Council's Whitsunday Water Strategy was available on the council website at: <http://www.whitsunday.qld.gov.au/web/guest/treatment-plants>

How the issue was assessed

The water resource plan requires that a water allocation be granted to Six Mile Creek Water Supply Board with a nominal volume of 300 megalitres, and a water allocation with a nominal volume of 2500 megalitres be granted to the Kelsey Creek Water Board. The water allocations are for the purpose of distribution loss in the boards' delivery of water to its customers. The volumes are consistent with supporting the total nominal volumes of water allocations held by the respective customers of the boards. These distribution losses are not sufficient to support additional volumes of allocation on a permanent basis.

The distribution losses incurred in supplying any seasonal water assignment volumes above the volume permitted for permanent trades can be managed through individual delivery contracts between the relevant board and the seasonal water assignment holder. While a delivery contract would ensure the seasonal water assignment holder has a commitment from the water board for a defined period of time, these contracts do not provide the necessary certainty of supply required for water allocations to support additional volumes being permanently allowed.

What the final plan says

The plan's provisions are unchanged.

Delineation of the Kelsey Creek water board zone

The issue

The draft plan proposed one zone to delineate the area where Kelsey Creek Water Board distributes water (Proserpine zone D). The water board takes water directly from a piped outlet on the dam wall. Most distribution losses are incurred along the channels and streams used to distribute water. In situations involving water trading where water is traded from upstream to downstream parts of the area, then the higher will be the delivery losses, particularly in the dry season.

One submitter requested that zone D be split into two zones representing an upstream zone and a downstream zone to control the volume of water allocations moving to the most downstream reaches and therefore limit any increases in distribution losses for the board.

How the issue was assessed

Splitting Proserpine zone D into two zones may constrain the opportunities for water trading and seasonal water assignments. It may also entice allocation holders to trade away from the downstream zone and possibly create viability issues associated with a reduced customer base.

A single trading zone for the Kelsey Creek water board area is the most equitable means of ensuring all water board customers are able to participate in the water trading market and ensure that the distribution losses are shared by all water users. It also maximises the flexibility for permanent water allocation trades and seasonal water assignments within the zone.

Any extra water required to support distribution losses associated with the movement of water allocations to the downstream reaches of the zone can be obtained through a number of means, including improvements in distribution efficiency or the acquisition of additional allocation from zone A (at the dam).

What the final plan says

The plan's provisions are unchanged.

2.5 Seasonal water assignments—Proserpine River Water Supply Scheme

Accounting for distribution losses—Six Mile Creek and Kelsey Creek boards

The issue

The distribution loss water allocations granted to Six Mile Creek Water Supply Board and Kelsey Creek Water Board are for volumes consistent with supporting the total nominal volumes of water allocations held by the

respective customers of the boards. These distribution loss allocations are not sufficient to support additional volumes of water that may be made available under seasonal water assignment arrangements.

One submitter has requested that the seasonal water assignment provisions state that distribution losses may need to be accounted for when deciding on seasonal water assignments into or out of the Six Mile Creek Water Supply Board and Kelsey Creek Water Board zones.

How the issue was assessed

The distribution losses incurred in supplying any seasonal water assignment volumes above the volume permitted for permanent trades can be managed through individual delivery contracts between the relevant board and the seasonal water assignment holder. A delivery contract would ensure the seasonal water assignment holder has a commitment from the water board for a defined period of time.

These delivery contracts would need to include provisions for distribution losses associated with supplying the additional water, either by allocating a proportion of the volume being seasonally assigned to distribution loss, or, where possible, through appropriate agreements with the resource operation licence holder for additional water to be supplied from Peter Faust Dam via another seasonal assignment.

A seasonal water assignment into or out of the board zones requires the consent of the resource operations licence holder and the relevant distribution operations licence holder (the relevant board). Ultimately, these scheme licence holders must be satisfied that the delivery requirements can be met, including any distribution losses, in considering any applications for seasonal water assignments.

What the final plan says

The plan's provisions are unchanged.

Notification of seasonal water assignments

The issues

The draft plan proposed that a scheme licence holder, in considering an application for a seasonal water assignment, be required to notify other scheme licence holders when consent of the seasonal water assignment is given.

One submitter suggested that there would be no need to notify the resource operations licence holder of any assignments between the two water board zones. The submitter agreed that the resource operations licence holder should, however, be notified of seasonal water assignments from Proserpine zones A or B into either of the board zones (Proserpine zones C and D) and vice versa.

Another submitter requested that the distribution operations licence holders be notified of all seasonal water assignments that result in trading water out of the boards' zones.

How the issues were assessed

The wording of the draft plan could be interpreted as requiring the resource operations licence holder to be notified of all seasonal water assignments, including those that occur solely between water allocation holders within the boards' zones. This was not the intention of the plan.

The resource operations licence holder will already be informed of the seasonal water assignment application through their role as a consenting party. If consent from all parties is obtained, there is no need for the resource operations licence holder to be notified if the water being seasonally assigned is from one of the distribution operations licence holder's zones to another (zones C to D or vice versa).

In relation to the second submitter's concerns, the draft plan proposed a requirement that the distribution operations licence holders be notified if the water being seasonally assigned is to or from either of the board zones. While the submitter's concern has already been addressed, the provision needed greater clarity.

What the final plan says

The final plan has been changed to more clearly outline the roles and responsibilities of each scheme licence holder in dealing with seasonal water assignments, particularly in terms on consent and notification arrangements.

The provisions have been amended to remove the requirement to notify the resource operations licence holder in those instances where the assignments are within or between the boards' zones, noting that the resource operations licence holder is already a consenting party to the assignment.

The final plan addresses matters raised by each submitter and provides greater clarity to ensure that each distribution licence holder notifies the other distribution licence holder in those instances where water is being seasonally assigned into or out of the boards' zones.

2.6 Dealing with applications to interfere with the flow of water

Background

A moratorium for the Whitsunday plan area applying to groundwater, overland flow water and water in a watercourse lake or spring came into effect on 20 March 2006 and was amended on 5 September 2008.

The purpose of a moratorium is to provide a stable water entitlement and development platform from which planning decisions can be based. The moratorium therefore sets limitations on dealing with existing and new licence applications to increase the volume of water taken in a year, increase the interference with water, change the location from which water may be taken, increase the maximum rate for taking water, change the conditions under which water may be taken, and change the purpose for which water may be taken.

The water resource plan continued the effect of the moratorium until the finalisation of the resource operations plan.

The draft plan provisions

The draft plan proposed that the chief executive be able to accept and decide particular licence applications, including applications to interfere with the flow of water in a watercourse, lake or spring.

The draft plan stated that a decision could be made about an application to interfere, or increase the interference, with the flow of water if the purpose of the interference was any of the following:

- to provide a storage with a capacity of no more than 20 megalitres of water that is to be taken under an authorisation for stock or domestic purposes
- to provide a small pumping pool with a capacity of no more than 2 megalitres of water to enable water to be taken under an existing authorisation
- to artificially improve or change the course of a watercourse, lake or spring
- to provide a storage with a capacity of no more than 20 megalitres of water for a purpose not related to the taking of water under an existing entitlement, such as community landscaping or retaining water for flood mitigation purposes.

The provisions proposed to prohibit an application being approved if the storage capacity is proposed to be greater than the volumes specified for the relevant purpose of the interference.

Where the application is to store water for stock or domestic purposes, the chief executive will consider the availability of water on the property to which the application relates, including existing water supplies such as existing weirs, groundwater and dams taking overland flow water.

The issue

One submitter requested that the provisions to interfere with water in a watercourse to provide a pumping pool for an existing authorisation should be extended to consider new authorisations. The submitter also suggested the allowable pumping pool capacity should be increased from 2 megalitres capacity to 20 megalitres.

How the issue was assessed

The intent of permitting interference for the purpose of providing a pumping pool is to allow a pump to operate effectively by creating a depth of water sufficient for operating a pump. The purpose of a pumping pool does not extend to storing water in the dam for use at a later time.

Based on the catchment characteristics of the Whitsunday area, 2 megalitres is considered sufficient volume to allow pumps and other works to operate effectively. A capacity of 20 megalitres is considered to be much larger than would be required in order to achieve the purpose of providing a pumping pool.

Landholders who do not have an existing entitlement may be able to acquire unallocated water released through a competitive market-based process such as by tender or auction. Section 33 of the water resource plan clarifies that, in the process of releasing unallocated water, there is opportunity to consider any interference matters relevant to the proponent's development proposal, such as those associated with a proposed pumping pool. By considering the interference matters in association with the proposed taking of water, full consideration of the proposal can be undertaken during the unallocated water release process.

What the final plan says

The plan's provisions are unchanged.

2.7 Monitoring and reporting requirements for scheme licence holders

The draft plan provisions

Chapter 10 of the draft plan included a number of monitoring and reporting requirements that SunWater, Kelsey Creek Water Board and Six Mile Creek Water Supply Board (the scheme licence holders) needed to comply with. It proposed that scheme licence holders monitor water quality, releases from storages, bank condition, incidents of fish stranding, and record announced allocations, water taken by users, seasonal water assignments and the details of any critical water supply arrangements that have been implemented.

The draft plan proposed that scheme licence holders report quarterly and annually on their performance and on particular aspects of their operations, as well as report on instances of fish stranding and operational incidents such as non-compliance with the plan, including any emergency responses or activities that prevented a scheme licence holder from complying with the plan.

Recording the reason for releasing water from a particular inlet level

The issues

One submitter requested changes to the monitoring requirements. In particular, the submission sought the removal of the requirement for the resource operations licence holder for the Proserpine River Water Supply Scheme to record the inlet level used for releasing water from Peter Faust Dam and the reason for deciding to release water from that particular inlet level.

How the issue was assessed

While the system may only record the inlet level at which water is released, the reasoning behind the decision to use a particular inlet level is important information to record about the operation of the storage. This information will assist in understanding the effects that water releases from different inlet levels may have on downstream aquatic ecosystems.

What the final plan says

The plan's provisions are unchanged.

Inspecting for evidence of bank collapse and/or erosion

The issues

One submitter sought an amendment to monitoring provisions relating to the inspection of the banks of watercourses for evidence of collapse and/or erosion downstream of the influence of the scheme licence holders' storage operations and/or infrastructure.

The submission explained that it may be difficult to monitor long distances of the watercourse, including those lengths of the river where access to riverbanks through adjacent properties is not always possible. The submitter

proposed an amendment to allow the inspection be carried out on reported instances of collapse and/or erosion rather than to inspect for evidence of collapse and/or erosion.

How the issue was assessed

In reviewing this submission, the department noted that it is not imperative for distribution operations licence holders to inspect and report on incidents of bank collapse, as the watercourses used by the distribution operations licence holders are not directly affected by the release of water from Peter Faust Dam.

However, the resource operations licence holder is responsible for minimising negative impacts on aquatic ecosystems from the operation of its infrastructure, including downstream impacts which are within the level of influence of the infrastructure. The proposed requirement to monitor for evidence of bank collapse and/or erosion allows for any early warning signs of negative impacts to be detected and action taken to rectify the situation as quickly as possible.

Waiting for instances of bank collapse or erosion to be reported may mean instances go unnoticed for days or weeks, or may never get reported. This may mean unreported incidents are not attended to and could lead to cumulative impacts on the stability of the riverbanks over time.

What the final plan says

The plan's provisions are unchanged, with the exception that the requirement to monitor for evidence of bank collapse and/or erosion has been narrowed to the resource operations licence holder only.

Measuring and recording water diversions

The issue

The draft plan proposed that distribution operations licence holders (the boards) measure and record the daily total volumes of water used in distributing water from channel systems to those watercourses used for distribution.

Two submitters requested that the boards be required to monitor only volumes at the location where water is first taken by the respective board. This means that Kelsey Creek Water Board would only measure the volumes diverted from Peter Faust Dam to their distribution network and Six Mile Creek Water Board would only measure those volumes the board diverts from the Proserpine River to their distribution network.

The submitters were concerned that the boards do not have the infrastructure in place to monitor the volumes distributed from their channel/pipeline systems.

How the issue was assessed

The draft plan's requirement for measuring volumes throughout the distribution network rather than just at the point of the initial diversion of water by the boards was intended to inform any future applications from the boards to convert their distribution loss allocations into water allocations for other purposes for use by their customers.

The department accepts that there may be alternative ways for a board to demonstrate improvements in water distribution efficiency. Additionally, the department views the most important criteria for conversion from a distribution loss purpose to another purpose is that there remains sufficient distribution loss allocation to support the boards' delivery of water to its customers.

What the final plan says

The final plan has changed to focus the monitoring requirement to the initial point of diversion by the boards.

There has also been some redrafting of the provision allowing for the conversion of distribution loss allocations to another purpose. The redrafting reflects the importance for the boards to retain sufficient distribution loss allocation to deliver water to their customers as the primary concern. Demonstrating improvements in the distribution efficiency is no longer a mandatory requirement, however the provision allows for its consideration in deciding the application.

2.8 Metering

Background

The National Water Initiative identifies a number of key measures that Queensland and other states have agreed to implement in order to improve and standardise water resource planning. A key objective includes water resource accounting. Under the Initiative, water resource accounting is required to ensure adequate measurement, monitoring and reporting systems are in place to support public and investor confidence in the amount of water being traded, extracted for consumptive use, and recovered and managed for environmental and other public benefit outcomes. Metering water use in the Whitsunday Plan Area is essential to meeting these objectives.

The draft plan provisions

The draft plan provides that all water allocations and all water licences that state a volumetric limit (a nominal entitlement) be metered from the day these entitlements are declared to be metered entitlements under the Water Regulation 2002.

The issues

Concerns were raised by four submitters about the financial impact metering would have on landowners.

Two submitters were also concerned that metering may lead to double accounting and/or charging for water in situations where complex infrastructure set-ups apply.

How the issues were assessed

The metering requirements of the water resource plan and resource operations plan relate to the intent of accounting for water that is taken as a mechanism for providing improved water accounting for volumetric-based water entitlements. Metering the volume of water used brings greater transparency in the accounting of the resource, which helps to support the security of existing entitlements.

The Queensland Government has been implementing meters for volumetric water entitlements in many other parts of the state to support the implementation of resource operations plans.

The complexities of private water supply systems vary on a case-by-case basis and this is why metering involves site assessments to tailor metering arrangements to the specific circumstances.

What the final plan says

The plan's provisions are unchanged.

2.9 Consistency with the Australian and Queensland Government's Reef Water Quality Protection Plan

Background

The joint Queensland and Australian Government Reef Water Quality Protection Plan (the Reef Plan) aims to improve the quality of water in the Great Barrier Reef through improved land management in reef catchments. It specifically focuses on non-point-source pollution, such as nutrients, sediments and pesticides, that are mobilised as a result of irrigation or rainfall and carried into waterways and then to the reef lagoon. The Reef Plan sets targets for water quality and land management improvement, and identifies actions to improve the quality of water entering the reef.

As part of the implementation of the Reef Plan, the *Great Barrier Reef Protection Amendment Act 2009* amended provisions in a number of Queensland Acts, such as the *Environmental Protection Act 1994*. Under the *Great Barrier Reef Protection Amendment Act 2009*, the Wet Tropics, Burdekin Dry Tropics and Mackay-Whitsunday catchments were nominated for regulation with regards to pesticide and fertilizer applications on commercial sugarcane crops.

The draft plan provisions

The draft plan includes provisions to achieve the objectives of the water resource plan, including general ecological outcomes. A particular general ecological outcome of the water resource plan is to deliver nutrients and organic matter throughout the plan area to support natural processes such as breeding, growth and migration in riverine, floodplain, wetland, estuarine and marine environments.

The issue

One submitter indicated that the figure of 83 per cent of average predevelopment flows from the Proserpine River being maintained as the minimum average discharge was unclear in the Whitsunday Draft Resource Operations Plan Summary because the 100 per cent volume was not presented. The submitter also argued that the plan's provision for freshwater flows to deliver nutrients and sediments to Repulse Bay was inconsistent with the Queensland Government's *Great Barrier Reef Protection Amendment Act 2009*.

How the issue was assessed

Modelling of the predevelopment flows showed that the average annual discharge from Proserpine River to Repulse Bay for this scenario was 593 900 megalitres per annum. The final plan is to maintain the average annual flows for the full development of entitlements case in this catchment at a minimum of 83 per cent of the predevelopment flows.

The *Great Barrier Reef Protection Amendment Act 2009* introduces regulations to improve the quality of water entering the Great Barrier Reef through the adoption of management practices that reduce the levels of farm chemicals, fertiliser nutrients and sediment reaching the Reef.

The nutrients and sediment referred to in the water resource plan and associated technical reports undertaken to support the development of the water resource plan relate to nutrients and sediments associated with naturally occurring processes such as decomposing organic matter and geological processes. These nutrients and sediments are required to support natural processes such as breeding, growth and migration of terrestrial and aquatic species.

In contrast, the *Great Barrier Reef Protection Amendment Act 2009* is aimed at reducing the impact of elevated levels of sediment, fertilisers and pesticides associated with run-off from agricultural areas.

What the final plan says

The plan's provisions are unchanged.

3 Other changes

Chapter 2 discusses the matters raised during consultation and how they were considered in preparing the final plan. A number of other changes have been made to the final plan that were not the outcome of community consultation—being an outcome of the department's internal review of the draft plan provisions.

Changes of note include:

- revised transmission and operation allowance figures for medium priority water allocations
- an adjustment to the carry over storage cut-off level.
- a revised definition of storage loss (SL) that is used to calculate the announced allocation.

Additionally, while the draft plan was prepared with diligence and care, minor errors were made and there were opportunities through the finalisation of the plan for some wording to be clarified and for errors to be corrected.

Correcting transmission and operation allowance figures

The department reviewed the transmission and operational allowance figures used in Table 8 in the draft plan and found an error in the figures. In the draft plan, the volumes for transmission and operational allowance were determined using an average loss across the whole scheme area, including Kelsey Creek.

Including average losses in Kelsey Creek in the calculation is incorrect as the transmission and operational allowance should only be determined for the Proserpine River and should not include Kelsey Creek. The losses associated with the distribution of water in Kelsey Creek are accounted for in the distribution loss allowance. The figures in Table 8 have been recalculated and adjusted. Additionally, Table 8 has been renumbered to Table 7 in the final plan.

As a result of this recalculation, the figures for transmission and operational allowance for high priority water in Table 7 of the draft plan have also been adjusted. Additionally, Table 7 has been renumbered to Table 6 in the final plan.

These corrections will result in small changes to the transmission and operational allowance figures for medium and high priority water allocations during different months of the year.

An adjustment to the carry over storage cut-off level.

Under the draft ROP, for medium priority water, carry over was to be permitted if the water level in the Peter Faust Dam was at or above 72.16 metres AHD. This carry over storage cut-off level was intended to protect high priority water in dry years where dam levels may be low.

In preparing the final plan, the department found the proposed carry over storage cut-off figure of 72.16 meters AHD would not protect the high priority water reserve and the high priority water allocations because the announced allocation formula used in the draft plan did not make allowance of the high priority reserve of 39 600 megalitres and high priority water allocation volume of 22 000 megalitres. The storage cut-off figure needed to be raised in the final plan to 75.5 metres AHD (equivalent to 33 per cent of the full supply volume) in order to maintain entitlement performance in the scheme.

A revised definition of storage loss (SL)

Storage loss accounts for water losses from a dam due to seepage and evaporation. These losses must be forecast or projected over the next water year when calculating how much water is available for supply to water allocation holders at the start of that water year.

Draft plan provisions

Table 5 in the draft ROP defined the parameters that are used to calculate the announced allocation, including the usable volume (UV) available in the Peter Faust Dam. The usable volume is defined in Table 5 of the draft plan, as : $UV = (CV - MOV - SL)$, where CV is the current volume of Peter Faust Dam, MOV is the minimum operating volume of Peter Faust Dam and SL is the projected storage loss over the next water year or the remaining part of

the current water year. Projected storage loss figures were provided in the draft plan in table 6, as depths in millimetres.

What the final plan says

The definition of storage loss (SL) has been revised in the final plan to clarify how the storage loss will be determined, as well as to remove ambiguity from the formula for calculating one of the parameters for the storage loss—the usable volume.

The definition of SL, and the stated formula for calculating UV in the draft plan could be interpreted in a number of different ways, resulting in inconsistent calculation of the UV used in the announced allocation formulae. The amended definition applied in the final plan provides certainty for the resource operations licence holder on the method that is required to be used when determining the useable volume.

The formula in the draft plan for calculating the usable volume included a mix of values in volumetric units and in depth units. Adjustments have been made to the formula so that only parameters in volumetric units are used in the calculation. So instead of the draft plan formula: $UV=(CV-MOV-SL)$ shown above, the final plan uses the following formula: $UV=AV-MOV$ (Table 4), where MOV remains as the minimum operating volume for Peter Faust Dam. AV is the adjusted storage volume derived after accounting for seepage and evaporative losses and is represented on the storage curve (listed in Attachment 4, Part 1 of the final plan) at the adjusted storage level (ASL). ASL is the current storage level less the projected storage loss depth for the remaining part of the year shown in Table 5 of the final plan. The projected storage loss depths (SLD) provided in Table 6 in the draft plan remain the same but are referred to as SLD in the final plan.

Tables 5 and 6 of the draft plan have been renumbered to be tables 4 and 5 respectively in the final plan.

4 Other issues raised in submissions

Some of the issues raised in submissions did not qualify for consideration under the terms of the draft plan and submission review process because the matters were either inconsistent with the water resource plan, did not relate to the water planning process or raised an issue that could not be addressed through the plan.

These issues were as follows:

- Submitters raised concerns regarding price paths for water allocation holders in the Proserpine River Water Supply Scheme, particularly in relation to distribution losses. Price paths in SunWater schemes are matters currently under consideration through the Queensland Competition Authority's independent review into rural irrigation water pricing. The Queensland Competition Authority's website shows they have received submissions raising these concerns and the rural irrigation water pricing review is the appropriate mechanism for these concerns to be heard.
- One submitter requested that the 20 megalitres allowable capacity for overland flow works without the requirement of a water licence be increased. This is a provision set in the water resource plan and cannot be adjusted through the resource operation plan. It is worth noting that following submissions on the draft water resource plan, the allowable capacity was increased from 10 megalitres to the current 20 megalitres capacity in the final water resource plan. This volume is compatible with a capacity suitable to support stock needs typical for this catchment. In aligning the capacity of works with stock uses, the provisions allowed for other types of consumptive use with equivalent flow impacts—for example, small-scale irrigation—to proceed without unnecessary regulatory controls. Importantly, the allowable capacity does not restrict the size of storage that could be used for the legitimate take of overland flow water for allowed purposes, such as stock or domestic uses or for capturing agricultural run-off.
- Two submissions raised the issue of the factor that was to be used to convert area licences to volumetric entitlements. The submitters believed the five megalitres per hectare of area stated on the entitlement was insufficient. This is a provision set in the water resource plan and cannot be adjusted through the resource operation plan. Five megalitres per hectare is considered representative of crop water requirements taking into account rainfall and other climatic conditions specific to the Whitsunday plan area.
- One submitter requested that the flood mitigation information for Peter Faust Dam that was contained in SunWater's interim resource operations licence be included as part of the infrastructure details in Attachment 4 of the plan. Flood mitigation is an important issue in Queensland and measures for flood mitigation associated with Peter Faust Dam are outlined in a Deed of Agreement between the department and the Whitsunday Regional Council. The Whitsunday Resource Operations Plan does not inhibit or prevent the flood mitigation measures for the Peter Faust Dam that are outlined in the Deed of Agreement.