

Department of Environment and Resource Management

Ref CTS 02576/11

Mr Peter Borrows Chief Executive Officer Seqwater PO Box 16146 CITY EAST QLD 4002

Detter Dear Mr Borrows

Thank you for submitting a revised interim program under section 13(6A) of the Moreton Resource Operations Plan (the ROP) outlining a proposal to make releases from Wivenhoe Dam (the dam) to maintain a 75% full supply level for the remainder of the 2011 summer season (between 20 February 2011 and 31 March 2011).

I advise that I have approved the submitted program under Section 13 (7) (a) of the ROP. I acknowledge that Seqwater will put suitable communications arrangements in place prior to and during the period when releases are being made under the interim program. I also note that the releases will be monitored and managed by Seqwater through suitably qualified personnel.

I also remind you that releases made under the interim program must be in accordance with other provisions of the Moreton ROP, including section 74, which states that the rate of release of water from the dam must occur to minimise the occurrence of adverse environmental impacts, such as bank slumping.

Should you have any further enquiries, please do not hesitate to contact me on telephone

Yours sincerely

John Bradley Director-General

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Seqwater Interim Program – Moreton Resource Operations Plan (Revised 17 February 2011)

The Moreton Resource Operations Plan (the ROP) commenced on 7 December 2009. The Queensland Bulk Water Supply Authority (trading as Seqwater) is the Resource Operations Licence Holder under the ROP for the following Water Supply Schemes:

- Central Brisbane River Water Supply Scheme;
- Pine Valleys Water Supply Scheme; and
- Stanley River Water Supply Scheme.

Where Seqwater, as the ROL holder, is unable to meet requirements of the ROP on its commencement, a structured process is available whereby a statement of programs currently in existence can be prepared and submitted to the Department of Environment and Resource Management (DERM), to be followed by an Interim Program. The box below sets out the relevant provisions under the ROP.

Relevant ROP Requirement

Interim Program

s13(1) The chief executive and the resource operations licence holder must implement requirements of this plan as soon as is practical within the timeframes stated below.

. s13(2) Subsections 3 to 11 apply where a resource operations licence holder is unable to meet the requirements of this plan on the day this plan commences.

s13(3) The resource operations licence holder must -

- (a) within 2 months of commencement of this plan, submit a statement of programs currently in existence, to the chief executive for approval; and
- (b) within 6 months of commencement of this plan, submit a program for meeting the requirements of this plan to the chief executive for approval, including a timetable and interim methods to be used.

s13(4) The resource operations licence holder may, where an emergency or operational incident results in an inability to comply with any rules or requirements of this plan, submit an interim program for meeting the requirements of this plan to the chief executive for approval, including timetable and interim methods to be used.

s13(5) Where the submitted program relates to the Water Monitoring Data Collection Standards, the program must include the accuracy of methods currently used.

s13(6) The chief executive, in considering any submitted program, may request additional information.

s13(6A) Despite anything in subsections 2, 3 or 4, a resource operations licence holder with an approved interim program may submit to the chief executive a revised program for consideration under subsection 7.

s13(7) The chief executive, in considering any submitted program, may either-

- (a) approve the program with or without conditions;
- (b) amend and approved the amended program; or
- (c) require the resource operations licence holder to submit a revised program.

s13(8) Within 10 business days of making a decision on a program submitted under this section the chief executive must notify the resource operations licence holder of the decision.

\$13(9) Following approval of the program by the chief executive, the resource operations licence holder must-

- (a) implement and operate in accordance with the approved program; and
- (b) make public details of the approved program on their internet site.

s13(10) Where there is conflict between the provisions of this plan and the provisions of an approved program, the approved program prevails for the time that the approved program is in place.

513(11) Where this section applies, the resource operations licence holder may continue to operate under the existing program until the program submitted under this section is approved.

Seqwater submitted a Statement of Current Programs to DERM on 5 February 2010, in accordance with Section 13 of the ROP.

Seqwater submitted an Interim Program for the Moreton ROP to DERM in May 2010, as required under s13 of the ROP. After consultation with and at the request of DERM, an amended Interim Program was submitted to DERM on 27 August 2010. A delegate of the Chief Executive approved Seqwater's 27 August 2010 Interim Program on 3 December 2010.

On 14 February 2011, the ROP was amended to permit a Resource Operations Licence Holder to submit a revised program.

Under Section 6A of the ROP, this Revised Interim Program is now submitted to DERM for approval to facilitate the temporary reduction of the water storage level at Wivenhoe Dam to temporarily increase the flood mitigation capacity of the dam.

Seqwater Interim Program – Moreton Resource Operations Plan

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Current as at	17	February	2011
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	Programs Currently In Existence	Interim Brown including Mathedalam	Timetable
Relevant ROP Requirement	(as submitted to DERM in February 2010 and	Interim Program, including Methodology	THICEBOIC
Departmental water monitoring data collection standards 11(1) Where this plan required monitoring by a resource operations licence holder, including measurement, collection, analysis and storage of data, the resource operations licence holder must ensure the monitoring is consistent with the Water Monitoring Data Collection Standards.	confirmed in 2010 Approved interim Program} Refer ss151-160.	There is currently limited monitoring of listed infrastructure under the ROP, however, a review will be undertaken (due for a staged completion, with final stage completed by 1 March 2012) to ensure monitoring is consistent with the Queensland Government Water Monitoring Data Collection Standards. The following sets out the timeline for the review: North Pine Dam: Review 1 July 2010; Implementation 1 September 2010 Sideling Creek Dam: Review 1 July 2010; Implementation 1 September 2010 Wivenhoe Dam: Review 1 October 2010; Implementation 1 January 2011 Somerset Dam: Review 1 October 2010; Implementation 1 January 2011 Enoggera Dam: Review 1 October 2011; Implementation 1 January 2012 Gold Creek Dam: Review 1 October 2011; Implementation 1 January 2012 Gold Creek Dam: Review 1 January 2012; Implementation 1 January 2012	1 September 2010 - 1 March 2012.
Departmental water monitoring data reporting standards 12(1) Where this plan requires transfer of data or reporting by a resource operations licence holder the resource operational licence holder must ensure the transfer or reporting is consistent with the Water Monitoring Data Collaction Standards.	Refer ss161-167.	Seqwater applies the Queensland Government Water Monitoring Data Reporting Standards (Feb 2007) to its current reporting procedures.	Refer 35161-167.
Central Brisbane River and Stanley River Water Supply Schemes – Operating levels for Infrastructure 72(3) The resource operations licence holder must not release water from any Infrastructure unless the release is necessary to (a) meet minimum flow rates in section 75; or (b) supply downstream demand.	Not compliant with ROP (releases made for operational purposes and water quality and ecosystem health including fish management)	 A. Sequater will continue to make releases from infrastructure – for consumption; pursuant to the Manual of Operational Procedures for Flood Mitigation at Wivenhoe Dam and Somerset Dam; for operational maintenance of dam infrastructure; where B does not apply, to operationally maintain storage levels, in the absence of a flood event, at or close to FSL; and for fish recovery. B. Sequater will, between 20 February and 31 March 2011 ("2011 Summer Season") and subject to the operational constraints specified below, make the following releases from infrastructure – the volume necessary to initially reduce Wivenhoe Dam to the interim Supply Security Level; and volumes necessary to initially reduce Wivenhoe Dam tevel to between the Interim Supply Security Level; and summer Season that take the Wivenhoe Dam level to between the Interim Supply Security Level and the Full Supply Level. The releases specified in (a) and (b) will only be made where releases can be undertaken at a rate such that Burtons Bridge remains trafficable. If, after releases specified in (a) or (b) have commenced, a flood event is declared, the dam will be operated in accordance with the Manual of Operational Procedures for Flood Mitigation at Wivenhoe Dam and Somerset Dam. (a) and (b) will be recommenced. For the purpose of the above, "Interim Supply Security Level" means 64.0 m AHD.	Part A: Ongoing Part B: 20 February 2011 – 31 Merch 2011
Central Brisbane River and Stanley River Water Supply Schemes – Streamflow Requirement 75 When critical water sharing arrangements are not in force, the resource operations licence holder must release a minimum flow of 8.64ML/day from Mount Crosby Weir.	No operational outlet works at Mt Crosby Weir, therefore no managed releases made.	As there are no operable outlet works at Mt Crosby Weir (and cannot be implemented without significant investment, including possible reconstruction of the weir), overflows are dependent upon releases from Wivenhoe and projected water supply demands and local inflows, the latter two components being outside Seqwater control. As a result, Seqwater has very limited control over releases from Mt Crosby Weir on a daily basis. As such, it is proposed that this requirement be deemed as satisfied if a minimum average flow of 8.64ML/day (for any given month) flows over Mt Crosby Weir, rather than a minimum flow of 8.64ML/day (for any given day).	Seqwater would be complian with a requirement for a minimum average flow of 8.64ML/day for any given month from 1 July 2010. Compliance is not able to be achieved for a minimum flow of 8.64ML/day for any given day.

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Relevant ROP Requirement	(as submitted to DERM in February 2010 and	Interim Program, Including Methodology	Timetable
Relevant KOP Requirement	confirmed in 2010 Approved Interim Program)		
Central Brisbane River and Stanley River Water Supply Schemes – Announced Allocations			
Announced Allocations 76 The resource operations licence holder must—	· · ·		
(a) calculate an announced allocation for each priority group for use in			
(a) calculate an announced allocation for each phony group for use in defining the share of water available to be taken under water			
allocations in that priority group;			
 (b) use the water sharing rules specified in this part to calculate 			
announced allocations throughout the water year;			
 (c) calculate and set the announced allocation for each priority group 		•	
to take effect on the first day of each water year;			•
(d) following the commencement of a water year-			
(i) recalculate the announced allocation to take effect no			
later than 5 business days following the first day of the			
month;			
(ii) reset the announced allocation if a recalculation indicates		New Medium Priority and High Priority Announced Allocation processes and procedures will be in place by the	
that the recalculated announced allocation would -	Not compliant with ROP (no programs currently in existence -		1 July 2010.
(A) for medium priority water allocations increase	MP customers transferred to Sequater on ROP gazettal)	commencement of the 2010/2011 Water Year (i.e. from 1 July 2010).	
by 10 or more percentage points;			
(B) for high priority water allocations increase by			
S or more percentage points; or			
(C) increase to 100 per cent.			
(e) within S business days of setting an announced allocation under	•		
subsection 1(c) or the first calendar day of every month when			
resetting the announced allocation under subsection 1(d)-			
 publish details of the announced allocation; and 			
(ii) make public details of the announced allocation, including		· · · · · ·	1
parameters for determining the announced allocation, on			
the resource operations licence holder's internet site;			
 (f) not reduce the announced allocation during a water year; 			
(g) round the announced allocation to the nearest whole percentage and a second sec			
point (h) not set an announced allocation that is greater than 100 per cent.			
(n) not set an announced anocation that is greater than 100 per cent.			
Announced Allocations for Medium Priority Water Allocations			
77(1) The announced allocation for medium priority water allocations in the			
Central Brisbane River Water Supply Scheme is the announced allocation	Not compliant with ROP (no programs currently in existence -		
percentage stated in Attachment 5, Table 5, column 2 corresponding to the	MP customers transferred to Segwater on ROP gazettal)	the second se	
combined percentage of useable volume in storage of Wivenhoe and	Wir Costonie's Bansicirca to Sciption and a Section	New Medium Priority Announced Allocation processes and procedures will be in place by the commencement of	1 July 2010.
Somerset dams stated in Attachment 5, Table 5, column 1.	Oleven a start the real time started to 6-10 March Creak Or mark	the 2010/2011 Water Year (i.e. from 1 July 2010).	
77(2) the combined percentage of useable volume in storage of Wivenhoe	Please note: the volume stored in Split Yard Creek Dam may		1
and Somerset dams must be calculated using the following formula-	Influence the Announced Allocation.		
SPUV5 = ((UVWivenhoe+UVSomerset)/CUFSV)*100			
77(3) The parameters used in the formula for combined percentage of volume	1		1
in storage are defined in Attachment 5, Table 6.			
Central Brisbane River and Stanley River Water Supply Schemes -			
Announced Allocation for 'High Priority A' Water Allocations			1
78 (1) The announced allocation for 'High Priority A' water allocations within			
the Central Brisbane River Water Supply Scheme must be as follows-			
(a) 100 per cent when the combined percentage of useable volume in			1
storage of Wivenhoe and Somerset dams is greater than or equal to		New High Priority Announced Allocation processes and procedures will be in place by the commencement of the	
25 per cent or	Not compliant with ROP (no programs currently in existence)		1 July 2010.
(b) when the combined percentage of useable volume in storage of Missister and Semicrast domain lass than 35 percent, the	Hor comparie with nor the prefience conclude a concerned	2010/2011 Water Year (i.e. from 1 July 2010).	
Wivenhoe and Somerset dams is less than 25 per cent, the			
announced allocation percentage for 'High Priority A' water allocations must be calculated using the following formula—			1
allocations must be calculated using the following formula— AAHPA=({UV-{AAMP*MPA}+DIVHPA+DIVMP}/HPAA)*100			1
			i
28(2) The parameters used in the formula for announced allocation are			
78(2) The parameters used in the formula for announced allocation are defined in Attachment 5, Table 4.			

Relevant ROP Requirement	Programs Currently In Existence (as submitted to DERM in February 2010 and confirmed in 2010 Approved (nterim Program)	Interim Program, including Methodology	Timetable
of Wivenhoe and Somerset dams must be calculated using the formula in	confirmed in 2010 Approved internit Programy		
section 77(2) of this plan.	· · · ·		
 Central Brisbane River and Stanley River Water Supply Schemes - Critical Water Sharing Arrangements 80(1) Critical water sharing arrangements are in force when the combined percentage of the volume of water in storage in Wivenhoe and Somerset 80(2) During times when critical water sharing arrangements are in force the resource operations licence holder must— (a) cease making releases from Mount Crosby Weir under section 75 of this plan; (b) when at the start of the water year the combined percentage of useable volume in storage of Wivenhoe and Somerset dams is less than 15 per cent, set the announced allocation for medium priority water allocations in the Central Brisbane River Water Supply Scheme to zero per cent; and 80(3) For subsection 1 the combined percentage of volume of water in storage for Wivenhoe and Somerset Dams used to some the storage for Wivenhoe and Somerset in storage in Water in storage in Wivenhoe and Somerset in a storage in Wivenhoe and Somerset in storage in Wivenhoe and		New Critical Water Sharing Arrangements processes and procedures will be in place by the commencement of the 2010/2011 Water Year (i.e. from 1 July 2010). New Medium Priority Announced Allocation processes and procedures will be in place by the commencement of the 2010/2011 Water Year (i.e. from 1 July 2010).	1 July 2010.
formula in section 77(2) of this plan. Central Brisbane River and Stanley River Water Supply Schemes – Seasonal water assignment rules 88(1) The resource operations licence holder may approve a seasonal assignment of a volume of water provided that the total volume of water use in a water year for each zone will not exceed the maximum allowable water use volume in Attachment 5, Table 9 for each zone. 88(2) The resource operations licence holder is responsible for dealing with applications for seasonal water assignment where the resource operations	Not compliant with ROP {no programs currently in existence, customers unmetered}	Procedures for monitoring and approving Seasonal Water Assignments have been developed and will be in place for all schemes from 1 July 2010, however, it should be noted that Seasonal Water Assignments in the Central Brisbane River Water Supply Scheme are connected to Implementation of a metering program (anticipated to take until December 2012). Advice will be provided to customers that where two parties wish to enter into a seasonal assignment transaction, that both parties will require a water meter, unless the selling party can demonstrate that they have no active water extraction or usage.	Metering program to be undertaken in close consultation with Mid- Brisbane irrigators (likely to take until December 2012).
licence holder distributes water to the assignce. Pine Valleys Water Supply Schemes – Operating Levels for Infrastructure 97(1) The operating levels for the Infrastructure in the Pine Valleys Water Supply Scheme are specified in Attachment 6, Table 1. 97(2) The resource operations licence holder must not release or supply water from any infrastructure when the water level in that infrastructure is at or below its minimum operating level. 97(3) The resource operations licence holder must not release water from any infrastructure unless the release is necessary to supply downstream demand and is made in accordance with this plan.	Not compliant with ROP (releases made for operational purposes and for water quality and ecosystem health including fish management)	 s97(1): Attachment 6, Table 1 incorrectly specifies the Minimum Operating Level for North Pine Dam as EL 14.2m AHD and Minimum Operating Volume as 2100ML. The correct Minimum Operating Level is EL 12.8m AHD and the correct Minimum Operating Volume is 1310ML. s97(2): Segwater will continue to release or supply water from North Pine Dam in accordance with the correct Minimum Operating Level of EL 12.8m AHD and the incorrect Minimum Operating Level of EL 14.2m AHD as specified in Attachment 6, Table 1. Segwater requests DERM correct this error in the ROP. s97(3): Segwater will continue to make releases from infrastructure- for consumption; pursuant to the Manual of Operational Procedures for Flood Mitigation at North Pine Dam; for operational maintenance of dam infrastructure; to operationally maintain storage levels, in the absence of a flood event, at or close to FSL; and for fish recovery. 	Ongoing.
Pine Valleys Water Supply Schemes – Announced Allocations 100 The resource operations licence holder must— (a) calculate an announced allocation for each priority group for use in defining the share of water available to be taken under water allocations in that priority group; (b) use the water sharing rules specified in this part to calculate announced allocations throughout the water year; (c) calculate and set the announced allocation for each priority group to take effect on the first day of each water year; (d) following the commencement of a water year— (i) recelculate the announced allocation to take effect no later than 5 business days following the first day of the month; (ii) reset the announced allocation if a recalculation indicates that the recalculated announced allocation would— (A) for high priority water allocations increase by	Not compliant with ROP (no programs currently in existence)	New Medium Priority and High Priority Announced Allocation processes and procedures will be in place by the commencement of the 2010/2011 Water Year (i.e. from 1 July 2010).	1 July 2010.

	Programs Currently In Existence		Timetable
Relevant ROP Requirement	(as submitted to DERM in February 2010 and	Interim Program, including Methodology	THIELADIC
Relevant Kor nequilientent	confirmed in 2010 Approved Interim Program)		
	continued in 2020 Approved interior / 18, 2007		
(8) Increase to 100 per cent			
(e) within 5 business days of setting an announced allocation under		·	
subsection 1(c) or the first calendar day of every month when			
resetting the announced allocation under subsection 1(d) make			
public details of the announced allocation, including parameters for			
determining the announced allocation, on the resource operations			
licence holder's internet site for the Pine Valleys Water Supply			
Scheme;			
(f) not reduce the announced allocation during a water year;			
(g) round the announced allocation to the nearest whole percentage			
point; and			
(h) not set an announced allocation that is greater than 100 per cent.			
101(1) The announced allocation for 'High Priority A' water allocations in the			
Pine Valleys Water Supply Scheme must be as follows-			
(a) 100 per cent when the level of water in storage in North Pine Dam is			
greater than E.L. 29.3m AHD; and			
(b) When the water level of water in storage in North Pine Dam is equal			
to or less than E.L. 29.3m AHD the announced allocation percentage			
for high priority water allocations must be calculated using the			
following formula—		· · · · · · · · · · · · · · · · · · ·	
AAHPA=((UV+DIVHPA)/HPAA)*100			
101(2) The parameters used in the formula for announced allocations are			
defined in Attachment 6, Table 2.			
102 The total volume of water taken under a water allocation in a water year must not exceed the nominal volume of the water allocation multiplied by the			
announced allocation and divided by 100.			
Pine Valleys Water Supply Schemes – Critical Water Sharing Arrangements			
103(1) Critical water sharing arrangements are in force when the water level		New Critical Water Sharing Arrangements processes and procedures will be in place by the commencement of the	
In North Pine Dam is equal to or less than E.L. 29.3m AHD.		2010/2011 Water Year (i.e. from 1 July 2010).	1 July 2010.
103(2) During times when critical water sharing arrangements are in force the	Not compliant with ROP (no programs currently in existence)	New High Priority Announced Allocation processes and procedures will be in place by the commencement of the	1 July 2010.
resource operations licence holder must calculate the announced allocation	• • • • • •		
for high priority water allocations in accordance with section 101(1)(b) of this		2010/2011 Water Year (i.e. from 1 July 2010).	
plan.			
Pine Valleys Water Supply Schemes - Seasonal Water Assignment Rules			
110(1) The resource operations licence holder may approve a seasonal	· · · · · · · · · · · · · · · · · · ·		
assignment of a volume of water provided that the total volume of water use		Procedures for monitoring and approving Seasonal Water Assignments have been developed and will be in place	1
in a water year for each zone will not exceed the maximum allowable water	Not compliant with ROP (no programs currently in existence)		1 July 2010.
use volume in Attachment 6, Table 3 for each zone.	Not compliant with NOP (no programs contently in constance)	by 1 July 2010.	1
110(2) The resource operations licence holder is responsible for dealing with			
applications for seasonal water assignment where the resource operations			1
licence holder distributes water to the assignee.			
Resource operations licence holder monitoring and reporting - Monitoring		Requests for data outside of ROP reporting requirements will be provided within required timeframes. Please	1 July 2010 (please note
data must be made available		note, however, that a standard waiting period of 7-14 days applies to all ad-hoc requests and a longer waiting	1
151 The resource operations licence holder must provide any monitoring data	Not compliant with ROP		waiting periods).
required under this chapter to the chief executive upon request and within		period may apply depending on the detail of the request.	l
the time requested.			
Monitoring requirements - Streamflow and infrastructure water level		and the second sec	
152(1) The resource operations licence holder must record water level and		152(2) Consistent Inflow derivation methodology will be developed by July 2011 for all storages. In the interim,	4 4 4 DOTO - MILLION
volume and stream flow data in accordance with Attachment 9, Table 1.	Not compliant with ROP (ALERT data available for Baxters Ck	existing methodology inherited from previous asset owners will be used where in existence.	1 July 2010 - July 2011.
152(2) Infrastructure inflows may be determined based upon an	and Dayboro WWTP)	Please refer to Attachment 9, Table 1 at end of document.	
Infrastructure inflow derivation technique supplied by the resource			
operations licence holder and approved by the chief executive.			

Relevant ROP Requirement	Programs Currently In Existence (as submitted to DERM in February 2010 and confirmed in 2010 Approved Interim Program)	Interim Program, including Methodology	Timetable
Monitoring requirements - Releases from infrastructure 153(1) This section applies to the following infrastructure— (a) Cressbrook Dam; (b) Mount Crosby Weir; (c) North Pine Dam; (d) Perseverance Dam; (e) Somerset Dam; and (f) Wivenhoe Dam. 153(2) The resource operations licence holder must measure and record for each release of water from infrastructure listed in subsection 1— (a) the daily volume released; (b) the release rate and for each change in release rate— (i) the date and time of the change; and (ii) the new release rate; (c) the reason for each release. 153(3) The resource operations licence holder for infrastructure mentioned in subsection 1(c) and 1(f) must record— (a) the inlet level used for each release of water; and (b) the reason for taking water via a particular inlet level.	153(1)(b) No measured releases made 153(1)(c) Operational Log ex SunWater system 153(1)(c) Operational Log ex SunWater system 153(1)(f) Operational Log ex SunWater system 153(2) Data is recorded in Operational Log 153(3) Data is recorded in Operational Log	153(1)(b): No operable outlet works exist at Mount Crosby Welr and cannot be implemented without significant Investment. Releases are not made – only overflows, which are monitored and recorded. As such, it is proposed Seqwater report the overflows in compliance with ss153(2) and 153(3) instead of releases since none are made.	1 July 2010 (note: overflows and not releases will be reported for Mt Crosby Weir).
 (a) the reason for taking water via a particular finet rever. (b) the resource operations licence holder must record details of announced allocation determinations including— (a) the announced allocations for medium and high priority water allocations; (b) the date announced allocations are determined; and (c) the value of each parameter applied for calculating the announced allocation. 	Not compliant with ROP (no programs currently in existence)	New Medium Priority and High Priority Announced Allocation processes and procedures will be in place by the commencement of the 2010/2011 Water Year (i.e. from 1 July 2010).	1 July 2010.
Monitoring requirements - Water taken by water users 155 The resource operations licence holder must record the total volume of water taken, by each water user for each zone as follows (a) the total volume of water taken in each quarter; (b) the total volume of water entitled to be taken at any time; and (c) the basis for determining the total volume of water entitlement to be taken at any time.	Only HP water take measured - no meters for measuring MP water take	Full compliance with these requirements for the Central Brisbane River Water Supply Scheme is dependent on the development and implementation of a metering program within the Scheme (anticipated to be an ongoing program which will need to be implemented in close consultation with the Mid-Brisbane irrigators, and will likely take until December 2012). All other schemes will be compliant from 1 July 2010. In the interim water estimations will consist of a quarterly mailout of recording sheets, specifying the requirement for recording volumes of water taken, plus supporting information, with submission of the recording sheets on a quarterly basis. The quarterly mailout will be a prompt for customers to submit their records. Advice will also be given of the Seqwater position that where records are not received that it will be assumed that 25% of the customer's water entitlement has been used for that quarter, and that this will be recorded as such.	1 July 2010 for all schemes except Central Brisbane River Water Supply Scheme (anticlpated to take until December 2012, with log sheets to be distributed in the first quarter after approval of the Interim program).
 Monitoring requirements - Seasonal water assignment of water allocations 156 The resource operations licence holder that approves a seasonal water assignment must record details of seasonal water assignment arrangements including (a) the name of the assignee, volume and location of water that has been seasonally assigned by an assignor; (b) the name of the assignet, volume and location of the water that has been seasonally assigned to an assignee; and (c) the effective date of seasonal water assignments. 	Not compliant with ROP (no programs currently in existence)	Procedures for monitoring and approving Seasonal Water Assignments have been developed and will be in place for all schemes from 1 July 2010, however, it should be noted that Seasonal Water Assignments in the Central Brisbane River Water Supply Scheme are connected to implementation of a metering program (anticipated to take until December 2012 – please refer to ss88 and 164 for further detail).	1 July 2010 for all schemes except Centrai Brisbane River Water Supply Scheme {anticipated to take until December 2012}.
 (c) the effective data of basicilar with origination. Monitoring requirements – Critical water sharing arrangements 157 The resource operations licence holder must record details of critical water sharing arrangements including the following— (a) the commencement date(s) and effective period of critical water sharing arrangements; and (b) the effectiveness of the critical water sharing arrangements. 	Not compliant with ROP (no programs currently in existence)	New Critical Water Sharing Arrangements processes and procedures will be in place by the commencement of the 2010/2011 Water Year (i.e. from 1 July 2010).	1 July 2010.
Monitoring requirements – Water Quality 158 the resource operations licence holder must monitor and record water	Somerset Dam	Sequater is currently compliant with the monitoring requirements for Wivenhoe Dam and Mt Crosby Welr (with the exception of tailwater monitoring since the downstream area is estuarine) and will be reported from 1 July	1 January 2011.

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Relevant ROP Requirement	Programs Currently in Existence (as submitted to DERM in February 2010 and confirmed in 2010 Approved Interim Program)	Interim Program, including Methodology	Timetable
quality data in relation to relevant infrastructure listed in Attachments 5, 6 and 7.	None. Quality monitoring and recording is event-related only. Water quality meters are DERM infrastructure. Headwater: Real-time telemetered VPS pH, Cond., Turb., Chl, BGA, DO; Fortnightly – Total Phyto, EC, TC, depth probe pH, Cond.,	2010. North Pine Dam requires some parameter additions to the inflow site on the North Pine River and the addition of a tailwater site to be compliant with the ROP requirements. Sequater is currently reviewing the North Pine Monitoring Program which will include the requirements under the ROP (scheduled for completion by 1 July 2010) and will be implemented by 1 September 2010 (including training, reporting and scheduling). In the interim, additional parameters will be added to the existing gauging and water quality site on the North Pine River to be	
	Turb., Temp., Chl, BGA, DO; Monthly (SB) – Total Phyto, EC, TC, Chl a, Fe, Mn, true colour, TSS, H2S, DOC, TOC, NH4, NOX, FRP, TN, TP, silica, Chl a, depth probe pH, Cond., Turb., Temp., Chl, BGA, DO. Tallwater:	 sampled on a monthly basis as follows: Inflow: electrical conductivity, temperature, dissolved oxygen, pH, turbidity, total nutrients, dissolved nutrients Tailwater: electrical conductivity, temperature, dissolved oxygen, pH, turbidity, total nutrients, dissolved nutrients, total sulphides Somerset Dam requires the addition of an inflow site on the Stanley River. The Somerset Dam Monitoring Program 	
	Fortnightly – Total Cyano, EC, TC, depth probe pH, Cond., Turb., Temp., Chl, BGA, DO Monthly – Total Phyto, EC, TC, Chl e, Fe, Mn, true colour, TSS, DOC, TOC, NH4, NOX, FRP, TN, TP, depth probe pH, Cond., Turb., Temp., Chl, BGA, DO.	Review is scheduled for completion on 1 October 2010, with implementation (including training, reporting and scheduling) by 1 January 2011. Mt Crosby Weir requires the addition of an tailwater site on the Brisbane River. The Wivenhoe Dam Monitoring. Program Review is scheduled for completion on 1 October 2010, with Implementation (including training, reporting and scheduling) by 1 January 2011.	
	Wivenhoe Dam Inflow – (Caboonbah): Fortnightly – Total Cyanobacteria, EC, TC, depth probe pH, Cond., Turb., Temp., Chi, BGA, DO. Monthly (SB) – Total Cyanobacteria, EC, TC, Chi a, Fe, Mn, true colour, depth probe pH, Cond., Turb., Temp., Chi, BGA, DO.		
	Headwater: Real-time telemetered VPS pH, Cond., Turb., Temp., Chl, BGA, DO Fortnightly – Total Phyto, EC, TC, depth probe pH, Cond., Turb., Temp., Chl, BGA, DO Monthly (SB) – Total Phyto, EC, TC, 'Chl a, Fe, Mn, true colour, TSS, H2S, DOC, TOC, NH4, NOX, FRP, TN, TP, silica, Chl a, depth probe pH, Cond., Turb., Temp., Chl, BGA, DO.		
	Tailwater: Fortnightly – Total Phyto, EC, TC, depth probe pH, Cond., Turb., Temp., Chl, BGA, DO Monthly – Total Phyto, EC, TC, Chl a, Fe, Mn, true colour,TSS, DOC, TOC, NH4, NOX, FRP, TN, TP, depth probe pH, Cond., Turb., Temp., Chl, BGA, DO.		
	North Pine Dam Inflow: None. Quality monitoring and recording is event-related only.		
	Headwater: Real-time telemetered VPS pH, Cond., Turb., Temp., Chl, BGA, DO Fortnightly – Total Phyto, EC, TC, depth probe pH, Cond., Turb., Temp., Chl, BGA, DO		

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	Programs Currently In Existence		
	(as submitted to DERM in February 2010 and	Interim Program, including Methodology	Timetable
. Relevant ROP Requirement	confirmed in 2010 Approved Interim Program)		
	Monthly (SB) - Total Phyto, EC, TC, Chi a, Fe, Mn, true colour,		
	TSS, H2S, DOC, TOC, NH4, NOX, FRP, TN, TP, silica, Chl a,	· · · · · · · · · · · · · · · · · · ·	
	depth probe pH, Cond., Turb., Temp., Chl, BGA, DO.		
	Tailwater:	,	
	None.		
	Mt Crosby Weir (also TS sampling)		
	Inflow: Kholo:		
	Fortnightly - total phytoplankton, depth probe pH, Cond.,		
	Turb., Temp., Chl. BGA, DO.		
	Headwater:		
	Fortnightly - Total Cyano, EC, TC, depth probe pH, Cond.,		
	Turb., Temp., Chi, BGA, DO		
	Monthly – Yotal Cyano, EC, TC, Chi a, Fe, Mn, true colour, TSS,		
	DOC, TOC, NH4, NOX, FRP, TN, TP, depth probe pH, Cond.,		
	Turb., Temp., Chl. BGA, DO.		
	Tailwater:		
	None, estuarine		
Monitoring requirements - Bank condition			
159(1) The resource operations licence holder must inspect banks for		Ponded area bank inspections for erosion are currently being undertaken on a weekly basis. Sequater will add	
evidence of collapse or erosion within the ponded areas and downstream of	Not compliant with ROP (inspections undertaken for ponded	interim downstream visual bank inspections to weekly surveillance inspections with results collated quarterly and	
the relevant infrastructure listed in Attachments 5, 6 and 7 following instances of —	areas but not stream bank or downstream)	reported (commencing 1 July 2010 and implemented by September 2010). These interim downstream visual	1 July 2010 - December 2011.
 (a) rapid water level changes; 	No reporting or monitoring currently undertaken for ROP	inspections will allow the distance of influence of infrastructure for each storage to be determined and an	
(b) large flows through infrastructure; or	purposes however Dam Safety monitor dam wall and	appropriate monitoring and inspection program to be implemented (commencing December 2010 and fully	
(c) other occasions when collapse or erosion of banks may be likely.	embankments directly surrounding dam storage.	implemented by December 2011).	
159(2) For subsection 1, downstream of the relevant infrastructure means the	4		
distance of influence of infrastructure operations.	· · · · · · · · · · · · · · · · · · ·		
Reporting requirements	· ·		
161 The resource operations licence holder must provide—	Not compliant with ROP.	-	Refer ss162-167.
(a) quarterly reports;		Refer ss162-167	Keler 35162-167.
(b) annual reports for the previous water year;	No reporting.		
(c) operational reports; and			
(d) emergency reports. Reporting requirements - Quarterly Report			•
162(1) The resource operations licence holder must submit a quarterly report		Sequater applies the Queensland Government Water Monitoring Data Reporting Standards (Feb 2007) to its	
to the chief executive after the end of each quarter, of every water year.		current reporting procedures.	
162(2) The report must contain the following data-		Commencing 1 July 2010 the following will be implemented:	
(a) stream flow and infrastructure water levels—all records referred to		 ROP datasets will be supplied quarterly, as required under the ROP. 	
in section 152 of this plan;		a second s	
(b) the total volume of water for each quarter—	Not compliant with ROP.	 ROP Compliance Report will be submitted with the quarterry reporting process, including exceptions to ROP requirements and an update on the Interim Program, as required under the ROP. 	1 July 2010 - December 2013
taken for each zone;		KUP requirements and an update on the interim riogram, as required and the nort.	
(ii) entitled to be taken from each zone;	No reporting.		
(c) water quality—all records referred to in section 158 of this plan;		Results of weekly bank condition monitoring will be collated quarterly and reported, with progressive	1
(d) a summary of bank condition monitoring and incidences of		Implementation commencing 1 July 2010 and fully implemented by December 2011.	
slumping, undertaken in accordance with section 159 of this plan;		Collation of data for required reporting is dependent upon the implementation of relevant interim programs for	
and (a) the details and status of any programs implemented under section		various requirements as specified under the ROP. Refer to \$\$152, 158 and 159 for further details.	
(e) the details and status of any programs implemented under section 13 of this plan.			
Reporting requirements – Annual Report		Sequater will submit an annual report as required, commencing for the 2010/2011 water year.	
Reporting requirements – Annual Report 163(1) The resource operations licence holder must submit an annual report	Not compliant with ROP.	Collation of data for required reporting is dependent upon the implementation of relevant interim programs for	1 July 2010 - December 201
to the chief executive after the end of the water year.		various requirements as specified under the ROP. Refer to s164 for further details.	
	No reporting.	I various requirements as specified under the NOF, Nerel to stor for the first details.	1

	Programs Currently In Existence (as submitted to DERM in February 2010 and	Interim Program, including Methodology	Timetable
Relevant ROP Requirement	confirmed in 2010 Approved Interim Program)		
 (a) water quantity monitoring results required under section 164 of this plan; 			
(b) details of the impact of infrastructure operation on water quality as			
required under section 164 of this plan;			
(c) a discussion about any issues that arose as a result of the			
implementation and application of the rules and requirements of			
this plan. eporting requirements – Water quantity monitoring – Annual Report			
54 The resource operations licence holder must include in the annual report			
nder section 163-			
 (a) A summary of announced allocation determinations, including— 			
(i) an evaluation of the announced allocation procedures and		Sequater will submit an annual report as required, commencing for the 2010/2011 water year. Collation of data	
outcomes; and (ii) the date and value for the initial announced allocation and		for ensured reporting is dependent upon the implementation of relevant interim programs for various	
 the date and value for the initial announced allocation and for each change made to an announced allocation; 		requirements as specified under the ROP. Refer to \$\$76, 77, 78, 80, 88, 100, 101, 103, 110, 153, 155, 156 and 157	
(b) instances where critical water sharing arrangements have been		far further datail	ss164(a-b, f-g): 1 July 201
implemented-		s164(a): New Medium Priority and High Priority Announced Allocation processes and procedures will be in place by	s164(c): 1 July 2010 (note
 an evaluation of the announced allocation procedures and 		the commencement of the 2010/2011 Water Year (i.e. from 1 July 2010).	overflows rather than
outcomes; and		s164(b): New Critical Water Sharing Arrangements processes and procedures will be in place by the	releases will be reported
 the commencement date(s) and effective period(s) for each stage of the arrangements and outcomes; 	No. of the second by DOD	commencement of the 2010/2011 Water Year (i.e. from 1 July 2010).	Mt Crosby Weir). Please
each stage of the arrangements and outcomes, (c) records from infrastructure—records referred to in section 153;	Not compliant with ROP.	c164(c): No operable outlet works exist at Mount Crosby Weir and cannot be implemented without significant	refer to s153 for further
 (c) the total annual volume of water taken by each water user, 		tww.stw.set. Belaster are not made - only overflows, which are monitored and recorded. As such, it is proposed	details.
specified by zone, namely-	No reporting.	Sequater report the overflows in compliance with ss153(2) and 153(3) instead of releases since none are made.	s164(d-e): 1 July 2010 -
 the total annual volume of supplemented water taken; 		Please refer to \$153 for further details.	December 2012. Please a
the total annual volume of supplemented water entitled		and 64(d, a): Compliance with these requirements for the Central Brisbane River Water Supply Scheme is dependent	to ss88, 155 and 156 for
to be taken; and (iii) the basis for determining the volume entitled to be taken;		to the development and implementation of a metering program within the Scheme (anticipated to be an ongoing	further details.
 (iii) the basis for determining the volume entitled to be taxen; (e) details of seasonal water assignments, namely— 		program and will need to be implemented in close consultation with the Mid-Brisbane irrigators, timetrame usery	
(i) the total number of seasonal water assignments		to take until December 2012). All other schemes will be compliant from 1 July 2010.	
arrangements; and		ss164(f-g): Seqwater will be compliant with these requirements from 1 July 2010.	
the total volume of water seasonally assigned;	· ·		
(f) all details of changes to infrastructure or the operation of the			1
infrastructure that may impact on compliance with rules in this plan; and			
 (g) details of any new monitoring devices used such as equipment to 			
measure stream flow.			
reporting requirements - Impact of infrastructure operation on natural			
cosystems – Annual report			
65 The resource operations licence holder must include in the annual report	·		1
(a) a summary of environmental considerations made by the resource	1		
(a) a summary or environmental considerations indee by the instance of the ins			
decisions;			
(b) a summary of the environmental outcomes of the decision including			
any adverse environmental impacts;		Seqwater will submit an annual report as required, commencing for the 2010/2011 water year.	
(c) a summary of bank condition and fish stranding monitoring and	Not compliant with ROP.	Sequater will submit an annual reporting is dependent upon the implementation of relevant interim programs for	1 July 2010 - December
assessment, including		various requirements as specified under the ROP. Refer to ss 158 and 159 for further details.	
 results of investigations of bank stumping or erosion identified in ponded areas or downstream of 	No reporting.	various requestions as spectrum and	Į
infrastructure;			
(ii) results of investigations of fish stranding downstream of	1		1
Infrastructure; and	· ·	1	
 (iii) changes to to the operation of infrastructure to reduce 	·		
instances of bank slumping, erosion or fish stranding; [d] a discussion and assessment of the following water quality issues—			
 (d) a discussion and assessment of the following water quality issues— (i) thermal and chemical stratification in each water storage 			
associated with infrastructure;			
(ii) contribution of the water storage and its management to			

		Programs Currently In Existence	•	Timetable
	Relevant ROP Requirement	(as submitted to DERM in February 2010 and	Interim Program, including Methodology	limetable
		confirmed in 2010 Approved Interim Program)		
	the quality of water released;	· · · · ·		
	(iii) cumulative effect of successive water storages associated			
	with infrastructure on water quality;			
· · · ·	(Iv) cyanobacteria population changes in response to			
	stratification in each water storage; and			
	(v) any changes to the monitoring program as a result of			
	evaluation of the data.			
	requirements – Operational Report			
	esource operations licence holder must-			
	notify the chief executive within one business day of becoming			
	aware of any of the following operational incidents-			
	(i) a non-compliance by the resource operations holder with			
	the rules in this plan; and		ss166(a)(i), (b): Seqwater will submit operational reports as required, commencing for the 2010/2011 water year.	
	 (ii) instances of fish stranding or bank slumping within the Impounded areas or downstream of infrastructure listed 		sslob(a)(ii): Process for reporting instances of fish standing and bank slumping will be progressively implemented	i i i i i i i i i i i i i i i i i i i
	In Attachment 9, Table 1 or watercourses associated with			
	the operation of the Central Brisbane River, Cressbrook		beginning 1 July 2010 with finalisation by December 2011.	
	Creek, Pine Valleys and Stanley River water supply		Ponded area bank inspections for erosion are currently being undertaken on a weekly basis. Seqwater will add	
	schemes:	· · ·	Interim downstream visual bank inspections to weekly surveillance inspections with results collated quarterly and	
с ы	provide to the chief executive a report which includes details of-		reported (commencing 1 July 2010 and implemented by September 2010). These interim downstream visual	
1	(i) the incident;		inspections will allow to the distance of influence of infrastructure for each storage to be determined and an	· ·
	(ii) conditions under which the incident occurred; and	Not compliant with ROP.	appropriate monitoring and inspection program to be implemented (commencing December 2010 and fully	
	(iii) any response or activities carried out as a result of the		Implemented by December 2011).	1 July 2010 - December 201
[Incident;	No reporting.	s166(c): New Critical Water Sharing Arrangements processes and procedures will be in place by the	
	notify the chief executive upon commencement and cessation of	No reporting.	commencement of the 2010/2011 Water Year (i.e. from 1 July 2010).	
	critical water sharing arrangements; and		s166(d): Procedures for monitoring and approving Seasonal Water Assignments have been developed and will be	
	notify the chief executive on approval of any seasonal water		In place for all schemes from 1 July 2010, however, it should be noted that Seasonal Water Assignments in the	Į
•	assignment, including-		Central Brisbane River Water Supply Scheme are connected to implementation of a metering program (anticipated	
	 the name and location of the assignees and assignors; and the name and location of the assignees and assigners; and 		to take until December 2012 – please refer to ss88 and 164 for further detail).	
	 the zone or zones where water is being seasonally assigned to and from; 		so take until December 2012 – please refer to sale and result in the decemp. s166(e-f): New Medium Priority and High Priority Announced Allocation processes and procedures will be in place	
101	notify the chief executive upon making a decision relating to an			
	initial announced allocation and/or its recalculation;		by the commencement of the 2010/2011 Water Year (i.e. from 1 July 2010).	
	transfer to the chief executive-			1
	(i) details of any arrangements of addressing circumstances			
	where the resource operations licence holder is unable to			Į.
1	supply water allocations under subsection (e); and			
1	(ii) relevant supporting information used in making a decision			
	under subsection (e).			
	g requirements Emergency report			1
	emergency where the resource operations licence holder cannot			
	rith a rule in this plan as a result of an emergency, the resource			
	ns licence holder must— notify the chief executive upon discovery of the emergency; and	1		
	provide to the chief executive a report that includes-	Not compliant with ROP.		
] (0)	 details of the emergency; 	· · · · · · · · · · · · · · · · · · ·	Seqwater will submit emergency reports as required, commencing for the 2010/2011 water year.	1 July 2010.
	 (ii) conditions under which the emergency occurred; 	No reporting.		
	(iii) any responses or activities carried out as a result of the	······································		1
	emergency; and			1
	(iv) any rules specified in this plan that the resource			
1	operations licence holder is either permanently or			
	temporarily unable to comply with due to the emergency.			

Attachment 8, Table 1 – Water Allocation Schedule

Relevant ROP Requirement	Programs Currently In Existence	Interim Program, including Methodology	Timetable	i
	The map in Attachment 2(b) of the ROP does not include Somerset			I.

	Due to the boundaries of the Brisbane Zone, this allocation is	The zone where this entitlement has been issued does not include Somerset Dam, where part of this water allocation has always been taken. Due to the boundaries of the Brisbane Zone, this allocation is currently being taken outside of the specified zone in the ROP.
150ML, Medium Priority, "This authorisation was authorised to	In accordance with current take of water from the Mid-Brisbane zone.	
continue under section 360ZDP of the Water Act 2000.		

Attachment 9 - Resource operations licence holder monitoring: Locations where continuous time series height and flow data and storage water level data are required.

Location	Continuous time series storage water level data	Continuous time series flow data	Programs Currently in Existence	Interim Program, including Methodology	Timetable
Mount Crosby Weir Inflow		y	Not continuous	A daily inflow derivation model is being developed which will incorporate outflow from Wivenhoe Dam, flow from	1 July 2010.
HADDLE CLOSDA AAELE WILLIAM	1	1.		Lockyer Creek and local area, change in Mt Crosby water levels and local irrigation and water supply demands.	
Mount Crosby Weir headwater level	Y		Continuous	Water level is monitored via ALERT to a 20mm resolution.	1 July 2010.
Mount Crosby Welr tailwater	+	Y	Not continuous	Downstream of Mt Crosby Welr is tidal and, as such, a downstream gauging station will not provide estimates of	Estimate of flow from the weir
				river flow. Releases are not made from Mt Crosby Weir and any flow through the fish way and over the weir crest	in place by 30 December 2010,
				will provide an estimate of the flow from the weir.	
North Pine Dam inflow	· · · · · · · · · · · · · · · · · · ·		Not continuous	A new daily inflow model is being developed and will be available by 1 July 2010.	1 July 2010.
North Pine Dam headwater level	- _v	<u> -</u>	Continuous	Compliant	1 July 2010.
North Pine Dam tailwater		Ŷ	Not continuous	Water level is monitored continuously at the Dayboro Rd WPS Weir about 1km downstream of North Pine Dam. At present, this is only available via SCADA and is not rated. Until the rating is developed and equipment installed at the site to enable remote monitoring. flow downstream of North Pine Dam can be estimated from the gate and valve openings at the Dam (anticipated for July 2011). A rating can be developed for the Dayboro Rd Weir based on recorded flows and heights.	July 2011.
Somerset Dam inflow		Y	Not continuous	A new daily inflow model is being developed and will be in place by 1 July 2010.	1 July 2010.
Somerset Dam headwater level	v	<u> </u>	Continuous	Compliant.	1 July 2010.
Somerset Dam tailwater		Y	Not continuous	Somerset Dam tailwater is affected by levels in Wivenhoe Dam. When full, the water in Wivenhoe back up to the toe of Somerset Dam. As such, a tailwater gauge is considered inappropriate. Outflows from Somerset can be estimated from the recorded openings of the gates, sluices and valves at the dam.	Ni)
		· · ·	Not continuous	A new daily inflow model is being developed and will be available by 1 July 2010.	1 July 2010.
Wivenhoe Dam inflow		<u> '</u> ·	Continuous	Compliant.	1 July 2010.
Wivenhoe Dam headwater level Wivenhoe Dam tailwater	T .	¥	Not continuous	Please note: Water level is continuously monitored and recorded via ALERT and on-site logger with a resolution of 20mm which is owned by DERM not Seqwater (143035A). The site is rated but can be affected by backwater from Lockyer Creek. Discharge from the dam can also be estimated via the rated gates and valves. Since the gauge is owned by DERM, Seqwater will not undertake monitoring for tailwater at this site.	Sequater will not undertake monitoring for tallwater at this site since the gauge is owned by DERM (143035A).