Litsupport Brisbane

From: Dan Spiller
Sent: Thursday, 6 January 2011 1:17 PM
To: stephen.robertson[redacted]; lance.mccallum[redacted]; Tim.Watts[redacted]; Geoff.Stead[redacted]; Lauren.Sims[redacted]; Best Debbie; 'Martin.PeterJ[redacted]; 'Dunn.KerryG[redacted]
Cc: Rob Drury; Mike Foster; SEQWGM Media; Reilly Bob
Subject: Recommencement of Wivenhoe Dam gate releases
Attachments: Technical Situation Report W28.docx

All,

We expect to begin gate release from Wivenhoe Dam this evening, to release water accumulated in the dams over the last 24 hours. The technical situation report is attached.

The release rate will be about 25,000 ML/day, compared to the peak last week of about 115,000 ML/day. We will aim to manage releases so as to avoid inundating Burtons Bridge and isolating up to 50 houses. However, depending upon rainfall, the bridge may be inundated by other flows.

The release strategy will be reviewed over the next 24 hours, and may change depending upon the amount of rainfall in the catchment.

We are consulting with Councils and the BoM about the release strategy.

A short media update is being issued, in consultation with the Minister's office.

Please contact me if you require any further information.

Regards,
Dan

Daniel Spiller
Director, Operations
SEQ Water Grid Manager
Phone: (07)[redacted] | Fax: (07)[redacted] | Mobile:[redacted]
Email: daniel.spiller[redacted]
Visit: Level 15, 53 Albert Street Brisbane
Post: PO Box 16205, City East QLD 4002
ABN: 14783 317 630

TECHNICAL SITUATION REPORT

TSR Number	W28	Date of TSR release	6.1.2011	Time of TSR release	12.00pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Monitor inflows and begin releases later today depending on Lockyer flows	
Strategy	• Monitor and develop release strategy	
Key considerations	Storage levels:	Above FSL
	Inflows:	Ongoing inflows
	Rainfall:	
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	No impact as yet

Rainfall

Since 9am Wednesday, there have been widespread falls of 30mm with isolated heavy falls up to 50mm in the Somerset and Wivenhoe catchments. Totals in the North Pine catchment have generally been below 10mm. Falls up to 60mm were recorded in the Leslie Harrion catchment.

The forecast for the next 24 to 48 hours is for totals up to 150mm in SE Qld.

The catchments remain wet and are likely to generate additional runoff in the event of rain.

Somerset Dam

At 0700 Thursday, Somerset Dam was 99.34m, 0.34m above FSL, and rising slowly. The rain in the Stanley River catchment has produced a small amount of runoff in the upper Stanley but there have been significant rises in Kilcoy Ck. Further regulator operations will be required later Thursday.

Wivenhoe Dam

At 0700 Thursday, Wivenhoe Dam was 67.31m and rising slowly. This is 0.31m above FSL and above the gate trigger level of 67.25m. There have been rises recorded at rivers and stream upstream of Wivenhoe Dam. Gates will be opened in the next 24 hours to manage the inflows from the upper Brisbane River and the outflow from Somerset.

Impacts of Wivenhoe Dam Releases

Based upon rain to date, expecting about 70,000ML from upper Brisbane. Lockyer Ck peak of about 100m3/s Friday afternoon. This will take out Twin Bridges and nearly inundate Savages Crossing. Colleges Crossing could be taken out by a combined Lockyer and local runoff.

Current strategy is to keep Burton Bridge free. On this basis, we will commence opening Wivenhoe at 1800 Thursday and ramp up to about 300m3/s by 2200. This would limit mid Brisbane flows to just

under 400m3/s (Burtons capacity 450m3/s).

If rainfall increases and Lockyer and local runoff also increase, we can close/reduce Wivenhoe accordingly to ensure that that 450m3/s is not exceeded unless necessary.

Councils have been advised of this strategy and are contacting residents.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	**Date**		**Time**		**or Event**	Gate opening

Suzie Emery

From: Petula Martinz
Sent: Tuesday, 11 January 2011 4:19 PM
To: Barry Dennien; Bob Reilly; Damien Brown; Darren Madgwick; Geoff Stead; Ken Smith; Kerry Dunn; Lance McCallum; Lauren Sims; Peter Borrows; Peter Martin; Rob Drury; SEQWGM Emergency; Stephen Robertson; Terry Wall; Tim Watts
Subject: Wivenhoe Dam release update
Attachments: Technical Situation Report W40.docx

All,

Current strategy from Flood Control Centre attached.

Dan

TECHNICAL SITUATION REPORT

TSR Number	W40	Date of TSR release	11.1.2011	Time of TSR release	4.00pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Maintain releases to keep Wivenhoe below fuse plug initiation and releases need to be made to ensure the dam security and minimise flood impacts downstream if possible	
Strategy	• Inflows into Wivenhoe in excess of 12000 cumecs. • Maintain current release 5700 cumecs as long as possible but due to the high level in the dam may change frequently due to inflows, this is being reviewed every 30 minutes and releases adjusted accordingly. • Close sluices at Somerset Dam to store more water however will affect upstream areas.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows expected around 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Somerset/Wivenhoe Dam

Our strategy revolves ensuring dam security and is around trying to prevent initiation of the first fuse plug at EL 75.6m. If this happens we will get a rapid increase of about 2,000m3/s in outflow from the dam in addition to the gate release which could be as high as 10,000m3/s at the time. Sluices have been closed at Somerset and this will result in high upstream water levels affecting Kilcoy.

Wivenhoe Dam is rising very quickly and rapid gate openings are required to manage this increase. Based on the current rate of rise, inflow rate is in excess of 12,000m3/s. The situation is being revised constantly and releases will be increased hourly until the water level starts to stabilize. It is possible that the releases will be as high as 10,000m3/s in the next few hours. Heavy rainfall continues in the catchment especially around the dam.

It should be noted that the flow in the lower Brisbane R in 1974 was about 9,500m3/s.

Travel time to Lower Brisbane River is 24 hours.

North Pine

Inflows and outflows are at record levels and increasing within inflows nearing 3,000m3/s, and is approaching an extreme event (possibly as high as 1 in 10,000 AEP)

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	**Date**	11.1.2011	**Time**	PM	**or Event**	

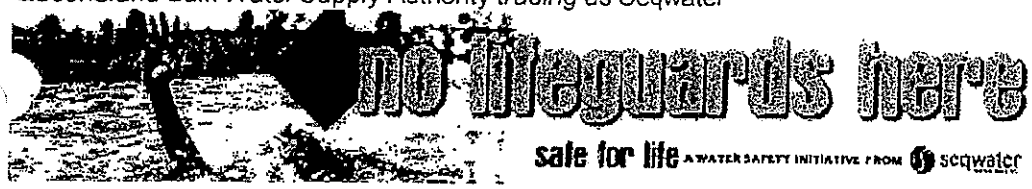
Dan Spiller

From: Rob Drury [rdrury[redacted]]
Sent: Friday, 7 January 2011 6:41 AM
To: Dan Spiller
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts
Subject: RE: Technical Report W29
Attachments: image001.jpg; image002.png; Technical Situation Report W29.docx

Attached is Report W29

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Thursday, 6 January 2011 12:13 PM
To: 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; 'Scott Denner'
Subject: Technical Report W28

Attached Technical Report W28.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W29	Date of TSR release	7.1.2011	Time of TSR release	7.00am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Monitor inflows and begin releases later today depending on Lockyer flows	
Strategy	• Monitor and develop release strategy, possible Wivenhoe releases later today or early Saturday • Due to high inflows, may need to impact Burtons which could be impacted purely by Lockyer flows later today anyway.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Ongoing inflows
	Rainfall:	
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	No impact as yet

Rainfall

There have been general totals around 30 to 50 mm with isolated heavy falls up to 75mm in the Somerset and Wivenhoe catchments since the event commenced on Wednesday 5 January 2011. There have been significant rainfalls in the Lockyer Ck catchment in the last 72 hours with widespread falls of 50mm and isolated falls up to 100mm.

Totals in the North Pine catchment have generally been about 35mm.

Falls between 20 and 30mm were recorded in the Leslie Harrison catchment.

The forecast for the next five days is for totals between 100 and 200mm in SE Qld. Given the saturated condition of the catchments further runoff will most likely be generated from this rainfall.

North Pine Dam

At 0600 Friday, North Pine Dam was at 39.48m, 0.12m below FSL. Gate operations commenced at 1915 on Thursday 6 January and are expected to continue until at least mid-day Friday 7 January when North Pine Dam is expected to be at 39.40m. These releases have impacted upon Youngs Crossing. Moreton Bay Regional Council was advised and they closed Youngs Crossing prior to gate operations commencing. Based upon the forecast rainfall, gate operations may continue into Saturday, but at this stage it is anticipated that gate operations will cease at around mid-day on Friday 7 January 2011.

Somerset Dam

At 0600 Friday, Somerset Dam was at 99.59m, 0.59m above FSL, and rising slowly. The rain in the Stanley River catchment has produced a small amount of runoff in the Upper Stanley but there have been significant rises in Kilcoy Creek, contributing to the Somerset inflows. Somerset Dam is currently releasing at a rate of 35 cumecs and further regulator/sluice operations will be required in the next 24 to 72 hours.

The estimated event inflow volume into Somerset Dam is around 50,000ML.

Wivenhoe Dam

At 0600 Friday, Wivenhoe Dam was at 67.64m and rising slowly. This is 0.64m above FSL and above the gate trigger level of 67.25m. Upstream of the dam river levels have peaked at the Linville and Gregors Ck gauges. The estimated event inflow volume into Wivenhoe Dam is 230,000ML including Somerset Dam outflow.

A peak of about 470 cumecs is expected from Lockyer Creek by mid-afternoon on Friday 7 January. At this stage there is some uncertainty associated with this estimate but it may be of sufficient magnitude to inundate Burtons Bridge.

Wivenhoe gate releases will occur after the impact of Lockyer flows on Burtons Bridge has been ascertained and flood levels in the lower Lockyer subside. It is proposed that Wivenhoe releases will commence late Friday/early Saturday and may be as high as 1,200 cumecs (similar but slightly smaller to recent events), and the releases are expected to continue over the weekend though to Monday or Tuesday.

Impacts of Downstream of Wivenhoe

Somerset Regional Council, Ipswich City Council and Brisbane City Council have been advised of the potential for gate operations during the next 24 hours.

The relatively high Lockyer flows will adversely impact upon Twin Bridges, Savages Crossing, and Colleges Crossing for several days and may impact upon Burtons Bridge from Friday mid-day and Kholo Bridge later on Friday evening. At this stage, there are not expected to be any adverse impacts upon Fernvale Bridge or Mt Crosby Weir Bridge.

Councils have been advised of this strategy and are contacting residents.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing. It is possible operations may cease later today with no further rainfall however, given the forecast rainfall, gate operations are expected to continue for some time.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date		Time		or Event	Gate opening decision

D15

TECHNICAL SITUATION REPORT

TSR Number	W29	Date of TSR release	7.1.2011	Time of TSR release	7.00am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Monitor inflows and begin releases later today depending on Lockyer flows
Strategy	• Monitor and develop release strategy, possible Wivenhoe releases later today or early Saturday • Due to high inflows, may need to impact Burtons which could be impacted purely by Lockyer flows later today anyway.
Key considerations	Storage levels: Above FSL
	Inflows: Ongoing inflows
	Rainfall:
	Lockyer/Bremer: Monitoring their inflows
	Brisbane River: No impact as yet

Rainfall

There have been general totals around 30 to 50 mm with isolated heavy falls up to 75mm in the Somerset and Wivenhoe catchments since the event commenced on Wednesday 5 January 2011. There have been significant rainfalls in the Lockyer Ck catchment in the last 72 hours with widespread falls of 50mm and isolated falls up to 100mm.

Totals in the North Pine catchment have generally been about 35mm.

Falls between 20 and 30mm were recorded in the Leslie Harrison catchment.

The forecast for the next five days is for totals between 100 and 200mm in SE Qld. Given the saturated condition of the catchments further runoff will most likely be generated from this rainfall.

North Pine Dam

At 0600 Friday, North Pine Dam was at 39.48m, 0.12m below FSL. Gate operations commenced at 1915 on Thursday 6 January and are expected to continue until at least mid-day Friday 7 January when North Pine Dam is expected to be at 39.40m. These releases have impacted upon Youngs Crossing. Moreton Bay Regional Council was advised and they closed Youngs Crossing prior to gate operations commencing. Based upon the forecast rainfall, gate operations may continue into Saturday, but at this stage it is anticipated that gate operations will cease at around mid-day on Friday 7 January 2011.

Somerset Dam

At 0600 Friday, Somerset Dam was at 99.59m, 0.59m above FSL, and rising slowly. The rain in the Stanley River catchment has produced a small amount of runoff in the Upper Stanley but there have been significant rises in Kilcoy Creek, contributing to the Somerset inflows. Somerset Dam is currently releasing at a rate of 35 cumecs and further regulator/sluice operations will be required in the next 24 to 72 hours.

The estimated event inflow volume into Somerset Dam is around 50,000ML.

Wivenhoe Dam

At 0600 Friday, Wivenhoe Dam was at 67.64m and rising slowly. This is 0.64m above FSL and above the gate trigger level of 67.25m. Upstream of the dam river levels have peaked at the Linville and Gregors Ck gauges. The estimated event inflow volume into Wivenhoe Dam is 230,000ML including Somerset Dam outflow.

A peak of about 470 cumecs is expected from Lockyer Creek by mid-afternoon on Friday 7 January. At this stage there is some uncertainty associated with this estimate but it may be of sufficient magnitude to inundate Burtons Bridge.

Wivenhoe gate releases will occur after the impact of Lockyer flows on Burtons Bridge has been ascertained and flood levels in the lower Lockyer subside. It is proposed that Wivenhoe releases will commence late Friday/early Saturday and may be as high as 1,200 cumecs, (similar but slightly smaller to recent events), and the releases are expected to continue over the weekend though to Monday or Tuesday.

Impacts of Downstream of Wivenhoe

Somerset Regional Council, Ipswich City Council and Brisbane City Council have been advised of the potential for gate operations during the next 24 hours.

The relatively high Lockyer flows will adversely impact upon Twin Bridges, Savages Crossing, and Colleges Crossing for several days and may impact upon Burtons Bridge from Friday mid-day and Kholo Bridge later on Friday evening. At this stage, there are not expected to be any adverse impacts upon Fernvale Bridge or Mt Crosby Weir Bridge.

Councils have been advised of this strategy and are contacting residents.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing. It is possible operations may cease later today with no further rainfall however, given the forecast rainfall, gate operations are expected to continue for some time.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury

Contact Officer position title	Dam Operations Manager					
Next TSR due	Date		Time		or Event	Gate opening decision

Dan Spiller

From: Paul Bird [pbird[redacted]]
Sent: Friday, 7 January 2011 8:09 AM
To: Dan Spiller
Subject: FW: Operating Strategy over the next week

Importance: High

FYI

From: Duty Engineer [mailto:dutyseq[redacted]]
Sent: Friday, 7 January 2011 08:05
To: David Roberts; flood.qld[redacted]; Mike Foster; Paul Bird; Rob Drury; Rohan Thorogood; Craig Duncan; Ken.Price[redacted]; kim.hang[redacted]; Al Navaruk; Bill Stephens; David Pokarier; John West; Louw Van Blerk; Mark Tan; Neville Ablitt; John.Ruffini@derm.qld.gov.au; John Tibaldi; Rob.ayre@sunwater.com.au; Terry Malone; Brett Schultz; Glenn Patterson; Malcolm Lane; Murray Dunstan; Rob Gorian; Agg Dagan; Doug Grigg; Graham Keegan; Graham Francis; Jayam Tennakoon; Matthew O'Reilly
Subject: Operating Strategy over the next week
Importance: High

Advice from BoM indicates that SE Qld can expect some high rainfall totals over the next 5 days.

Friday: Rain at times 15-50mm with higher falls along the coast
Saturday: Rain light at times 15-50mm with higher falls along the coast
Sunday: Widespread rain with totals between 50-100mm
Monday: Widespread rain again with totals between 50-100mm
Tuesday: Rain easing with totals between 25-50mm

Given the saturated conditions of the dam catchments, significant volumes of inflows to our dams will be generated.

On this basis, the operating strategy for Somerset, Wivenhoe and North Pine needs to consider the current state of the storages and the project inflows.

North Pine

North Pine currently has 5 gates open releasing runoff from rain on Wed/Thursday. Given the very high likelihood of significant runoff during the next 5 days, it is recommended to keep gates open for the period, rather than opening and closing at various times with short notice. It will not be practical or may not be possible to adopt the usual strategy of opening and closing overnight to minimise the impact on Youngs Crossing.

Somerset

Somerset Dam currently has a regulator open 50%. At this stage, it is expected to open 1 or 2 sluices on Saturday. However, this may need to be reviewed if significant runoff occurs in the Stanley and Upper Brisbane. Under circumstances of high inflows to Somerset and Wivenhoe, it is the usual practice to hold flood water in Somerset until there is a high level of confidence in the estimated inflows to Wivenhoe.

Wivenhoe

As outlined in this morning's SitRep, it is intended to ramp up the release from Wivenhoe to about 1,200m3/s later today. However, given the high likelihood of significant inflows in the next week, this may be increased to 1,500m3/s in order to drain the current temporarily stored flood waters as soon as possible.

This will mean that all of the crossing downstream of Wivenhoe with the exception of Fernvale and Mt Crosby Weir Bridge will be adversely impacted.

Leslie Harrison

Given its proximity to the coast Leslie Harrison is likely to be most impacted by the forecast rain over the next 5 days.

It is likely that the releases from North Pine and Leslie Harrison will continue until the middle of next week and from Wivenhoe until next Friday. Staffing for the Flood Operations Centre will be arranged accordingly. Co-originators should start to plan for prolonged operations at dams.

Terry Malone
Duty Engineer
Flood Operations Centre

Phone: [redacted]

Fax:

Important information: This email and any attached information is intended only for the addressee and may contain confidential and/or privileged information. If you are not the addressee, you are notified that any transmission, distribution, or other use of this information is strictly prohibited. The confidentiality attached to this email is not waived, lost or destroyed by reasons of mistaken delivery to you. If you have received this email in error please contact the sender immediately and delete the material from your email system. QLD Bulk Water Supply Authority ABN75450239876 (Trading as Seqwater).

Litsupport Brisbane

From: Dan Spiller
Sent: Friday, 7 January 2011 8:27 AM
To: stephen.robertson[redacted]; lance.mccallum[redacted]; Tim.Watts[redacted]; Geoff.Stead[redacted]; Lauren.Sims[redacted]; Best Debbie; 'Martin.PeterJ[redacted] 'Dunn.KerryG[redacted]
Cc: Rob Drury; Mike Foster; SEQWGM Media; Reilly Bob
Subject: Update on dam gate releases
Attachments: Technical Situation Report W29.docx

All,

Attached is the updated technical situation report.

There has been widespread rainfall in most of the dam catchments. These inflows have triggering the need for gate releases, with forecasts of between 100 and 200 mm of further rainfall over the next five days.

For Wivenhoe and Somerset dams, key points are:

- There has been general falls of around 30 to 50 mm since Wednesday, with isolated peaks of up to 75mm. About 230,000 ML will need to be released, based on estimated flows into the dam.
- There has been heavier rainfall in the Lockyer Creek catchment, which flows into the Brisbane River below the dam wall. Without dam releases, these flows are likely to result in Burtons Bridge being inundated by mid afternoon today – again isolating up to 50 households.
- Dam releases are expected to commence late tonight or early tomorrow, once existing Lockyer Valley flows have peaked – minimising downstream impacts and deferring the inundation of Burtons Bridge.
- At this stage, releases are expected to be at a similar rate to the recent events (up to about 105,000 ML/day) and continue until Monday or Tuesday next week (depending on further rainfall).

North Pine and Leslie Harrison dams are also making gate releases. Youngs Crossing has been inundated.

Councils have been advised. Somerset is contacting key affected residents.

We will provide an update once the timing of releases has been fixed.

Please contact me if you require any further information.

Regards,
Dan

Daniel Spiller
Director, Operations
SEQ Water Grid Manager
Phone:[redacted] | Fax:[redacted] | Mobile:[redacted]
Email: daniel.spiller[redacted]
Visit: Level 15, 53 Albert Street Brisbane
Post: PO Box 16205, City East QLD 4002
ABN: 14783 317 630

TECHNICAL SITUATION REPORT

TSR Number	W29	Date of TSR release	7.1.2011	Time of TSR release	7.00am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Monitor inflows and begin releases later today depending on Lockyer flows	
Strategy	• Monitor and develop release strategy, possible Wivenhoe releases later today or early Saturday • Due to high inflows, may need to impact Burtons which could be impacted purely by Lockyer flows later today anyway.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Ongoing inflows
	Rainfall:	
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	No impact as yet

Rainfall

There have been general totals around 30 to 50 mm with isolated heavy falls up to 75mm in the Somerset and Wivenhoe catchments since the event commenced on Wednesday 5 January 2011. There have been significant rainfalls in the Lockyer Ck catchment in the last 72 hours with widespread falls of 50mm and isolated falls up to 100mm.

Totals in the North Pine catchment have generally been about 35mm.

Falls between 20 and 30mm were recorded in the Leslie Harrison catchment.

The forecast for the next five days is for totals between 100 and 200mm in SE Qld. Given the saturated condition of the catchments further runoff will most likely be generated from this rainfall.

North Pine Dam

At 0600 Friday, North Pine Dam was at 39.48m, 0.12m below FSL. Gate operations commenced at 1915 on Thursday 6 January and are expected to continue until at least mid-day Friday 7 January when North Pine Dam is expected to be at 39.40m. These releases have impacted upon Youngs Crossing. Moreton Bay Regional Council was advised and they closed Youngs Crossing prior to gate operations commencing. Based upon the forecast rainfall, gate operations may continue into Saturday, but at this stage it is anticipated that gate operations will cease at around mid-day on Friday 7 January 2011.

Somerset Dam

At 0600 Friday, Somerset Dam was at 99.59m, 0.59m above FSL, and rising slowly. The rain in the Stanley River catchment has produced a small amount of runoff in the Upper Stanley but there have been significant rises in Kilcoy Creek, contributing to the Somerset inflows. Somerset Dam is currently releasing at a rate of 35 cumecs and further regulator/sluice operations will be required in the next 24 to 72 hours.

The estimated event inflow volume into Somerset Dam is around 50,000ML.

Wivenhoe Dam

At 0600 Friday, Wivenhoe Dam was at 67.64m and rising slowly. This is 0.64m above FSL and above the gate trigger level of 67.25m. Upstream of the dam river levels have peaked at the Linville and Gregors Ck gauges. The estimated event inflow volume into Wivenhoe Dam is 230,000ML including Somerset Dam outflow.

A peak of about 470 cumecs is expected from Lockyer Creek by mid-afternoon on Friday 7 January. At this stage there is some uncertainty associated with this estimate but it may be of sufficient magnitude to inundate Burtons Bridge.

Wivenhoe gate releases will occur after the impact of Lockyer flows on Burtons Bridge has been ascertained and flood levels in the lower Lockyer subside. It is proposed that Wivenhoe releases will commence late Friday/early Saturday and may be as high as 1,200 cumecs, (similar but slightly smaller to recent events), and the releases are expected to continue over the weekend though to Monday or Tuesday.

Impacts of Downstream of Wivenhoe

Somerset Regional Council, Ipswich City Council and Brisbane City Council have been advised of the potential for gate operations during the next 24 hours.

The relatively high Lockyer flows will adversely impact upon Twin Bridges, Savages Crossing, and Colleges Crossing for several days and may impact upon Burtons Bridge from Friday mid-day and Kholo Bridge later on Friday evening. At this stage, there are not expected to be any adverse impacts upon Fernvale Bridge or Mt Crosby Weir Bridge.

Councils have been advised of this strategy and are contacting residents.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing. It is possible operations may cease later today with no further rainfall however, given the forecast rainfall, gate operations are expected to continue for some time.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
[redacted]	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	**Date**		**Time**		**or Event**	Gate opening decision

From: Paul Bird <pbird[redacted]>
Sent: Friday, January 7, 2011 8:28 AM
To: SEQWGM Media <media[redacted]>; aroebuck[redacted]; greg.swain[redacted]; GSTUBBS[redacted]; Kathy Petrik <Kathy.Petrik[redacted]>; lisa.m.martin[redacted] Paula Weston <paula.weston[redacted]>; tjacobs[redacted] Dennien <Barry.Dennien[redacted]>; Dan Spiller <Daniel.Spiller[redacted]>; Scott Denner <Scott.Denner[redacted]>; Arminda Roberts <aroberts[redacted]>; Bec Middlemiss <bmiddlemiss[redacted]>; Michael Fiechtner <MFiechtner[redacted]>; Mike Foster <mfoster[redacted]>; Tara King <tking[redacted]>
Cc: Mike Foster <mfoster[redacted]>; Michael Lyons <Michael.Lyons[redacted]>; Geoff Stead <Geoff.Stead[redacted]>; ELT <ELT[redacted]>
Subject: Release Update

As of 9.00 am 7 January, the following applies:

SOMERSET DAM:
Water is being released into Wivenhoe through a regulator valve and may be increased to manage rainfall and inflows. Sluice gates may be operated during the weekend.

WIVENHOE DAM:
Gate operations will commence when flood levels in the lower Lockyer Creek subside. Releases may be around 130,000 megalitres per day.

Local Councils are being advised that local flows, and the expected Wivenhoe release, may impact upon Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing for several days.

At this stage, no adverse impacts are expected for Fernvale Bridge, or Mt Crosby Weir Bridge

NORTH PINE DAM:
Gate operations commenced during the evening of Thursday 6 January and may continue until next week.

The local Council was advised prior to the gate operation commencing that Youngs Crossing may be inundated.

LESLIE HARRISON DAM:
Due to rainfall, a release is underway and may continue until next week.

HINZE DAM:
No releases. There is no public access to the spillway.

For detailed information on road crossing closures and other potential impacts, always contact your local council.

RECREATION UPDATE:
Due to water levels, Wivenhoe is closed to all water based recreational activities as from this morning, and

this will most likely extend over the weekend.
At this point, Somerset is open to water based recreational activities, however this could change at short notice.
Moogerah is open to water based recreational activities, while Maroon remains open, but swimming and skiing should be avoided.
The following recreation sites are closed to the public –

- O'Sheas Crossing
- Hamon Cove
- Logan Inlet
- Captain Logan Camp
- River access at Atkinson's Crossing
- Billies Bay/Hays Landing

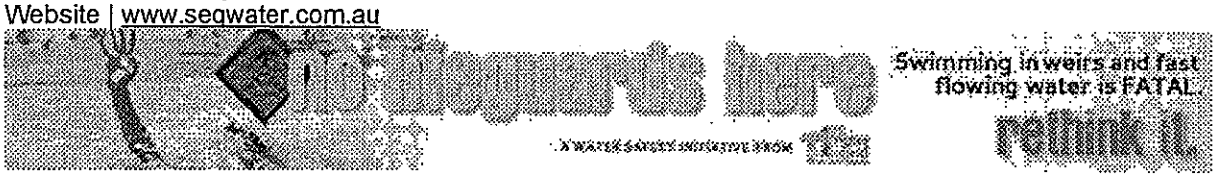
Lake Baroon has been closed to on-water recreation activities due to the current lake level.

The recreation areas at Lake Baroon are open for land based activities, such as picnicking and barbequing. Care should be taken at the recreation sites, as the ground may be very wet. Vehicles must be parked only in designated parking areas, and should not be driven onto grassed areas.

This information will be updated if any significant changes occur.

Paul Bird
Senior Communications Advisor
Queensland Bulk Water Supply Authority *trading as* Seqwater

P [redacted] M [redacted] E pbird [redacted]
Level 3, 240 Margaret St, Brisbane City QLD 4000
PO Box 16146, City East QLD 4002
Website | www.seqwater.com.au



TECHNICAL SITUATION REPORT

TSR Number	W30	Date of TSR release	7.1.2011	Time of TSR release	3.00pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Begin discharging stored floodwaters
Strategy	• Start releasing at 3pm today and increase up to 1200cumecs.
Key considerations	Storage levels: Above FSL
	Inflows: Ongoing inflows
	Rainfall:
	Lockyer/Bremer: Monitoring their inflows
	Brisbane River: No impact as yet

North Pine Dam

Ongoing operations.

Somerset Dam

Somerset Dam is currently releasing at a rate of 35 cumecs and further regulator/sluice operations will be required in the next 24 to 72 hours.

The estimated event inflow volume into Somerset Dam is around 50,000ML.

Wivenhoe Dam

Wivenhoe releases commenced at 1500 Friday and will be slowly increased to about 1,200 m3/s by 1400 Saturday. It will initially be held around this level until Sunday morning at which time the release strategy will be reviewed and be dependent upon further rainfall.

Impacts of Downstream of Wivenhoe

This will mean that all of the crossings downstream of Wivenhoe with the exception of Fernvale and Mt Crosby Weir Bridge will be adversely impacted.

Councils have been advised of this strategy and are contacting residents.

Conversations have just taken place between BCC, Seqwater and BoM re impact of flows in the lower Brisbane R

Seqwater and BoM concur that a flow of a 1,500m3/s in the lower Brisbane R will only add about 50mm to the expected water levels in the City Reach on the recorded high tides. This has been demonstrated by a

comparison of the recorded water levels at Whyte Is and Brisbane City gauges during periods of no flow and periods of higher flows in the last few months.

However, it should be noted that this impact varies during the tidal cycle and is more pronounced on the low tide level that the high tide level.

It is recognized that current recorded high tide levels are 0.4 to 0.5 metres higher than predicted tides due to atmospheric conditions.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	8.1.2011	Time		or Event	

From: Paul Bird <pbird[redacted]>
Sent: Friday, January 7, 2011 3:28 PM
To: SEQWGM Media <media[redacted]>; aroebuck[redacted]; greg.swain[redacted]; GSTUBBS[redacted]; Kathy Petrik <Kathy.Petrik[redacted]>; lisa.m.martin[redacted]; Paula Weston <paula.weston[redacted]>; tjacobs[redacted]; Barry Dennien <Barry.Dennien[redacted]>; Dan Spiller <Daniel.Spiller[redacted]>; Scott Denner <Scott.Denner[redacted]>; Arminda Roberts <aroberts[redacted]>; Bec Middlemiss <bmiddlemiss[redacted]>; Michael Fiechtner <MFiechtner[redacted]>; Mike Foster <mfoster[redacted]>; Tara King <tking[redacted]>
Cc: Mike Foster <mfoster[redacted]>; Michael Lyons <Michael.Lyons[redacted]>; ELT <ELT[redacted]>
Subject: Release Update

As of 3.30 pm on 7 January, the following applies:

SOMERSET DAM:
Water is being released into Wivenhoe through a regulator valve and may be increased to manage rainfall and inflows. Sluice gates may be operated during the weekend.

WIVENHOE DAM:
Gate operations have commenced and releases are expected to reach around 100,000 megalitres a day by the afternoon of Saturday 8 January. Releases will be reviewed and may change according to rainfall, inflows and river flows.

Local Councils are being advised that Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing may be inundated for several days.

At this stage, no adverse impacts are expected for Fernvale Bridge, or Mt Crosby Weir Bridge

NORTH PINE DAM:
Gate operations commenced during the evening of Thursday 6 January and may continue until next week.

The local Council was advised prior to the gate operation commencing that Youngs Crossing may be inundated.

LESLIE HARRISON DAM:
Due to rainfall, a release is underway and may continue until next week.

HINZE DAM:
A release through the emergency gates is expected during the weekend. There is no public access to the spillway.

For detailed information on road crossing closures and other potential impacts, always contact your local council.

RECREATION UPDATE:

Lake Wivenhoe
Lake Wivenhoe is currently closed to water based recreation activities, and is expected to remain closed for some days, due to the high water levels.
The following recreation sites at Lake Wivenhoe are currently closed due to submerged infrastructure, or dangerous conditions –

- O'Sheas Crossing
- Hamon Cove
- Logan Inlet
- Captain Logan Camp
- River access at Atkinson's Crossing
- Billies Bay/Hays Landing

Other recreation areas at Lake Wivenhoe are open for land based recreation activities.
The Spillway Lookout recreation area is open, however visitors are advised that there may be long delays due to the numbers of people on site. Security staff and traffic controllers will be on site to assist with visitor management – all visitors must comply with the reasonable directions of security staff and traffic controllers.

Lake Somerset
Lake Somerset will be temporarily closed to water based recreation activities from 6.00pm Friday 7 January due to the high water levels.
Lake Somerset is expected to remain closed over the weekend, and possibly into next week, depending upon the conditions.

Lake Borumba
Yabba Creek Road between Imbil and Borumba Dam is currently closed, meaning that access to the lake is not available. Even if there is no further rain, it is expected that access to Borumba Dam will be closed for several days.

Lake Baroon
Lake Baroon has been closed to on-water recreation activities due to the current lake level. The recreation areas at Lake Baroon are open for land based activities.

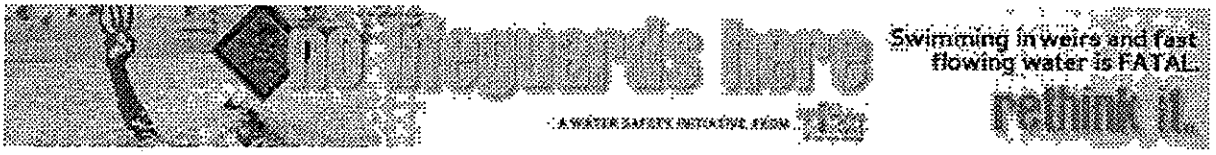
Lake Maroon
Lake Maroon remains closed to water skiing and swimming but is open to boating and fishing.

Care should be taken at the recreation sites that are open, with the ground being totally saturated. Vehicles must be parked only in designated parking areas, and should not be driven onto grassed areas.

This information will be updated if any significant changes occur.

Paul Bird
Senior Communications Advisor
Queensland Bulk Water Supply Authority *trading as* Seqwater

[redacted] E pbird[redacted]
Level 3, 240 Margaret St, Brisbane City QLD 4000
PO Box 16146, City East QLD 4002
Website | www.seqwater.com.au



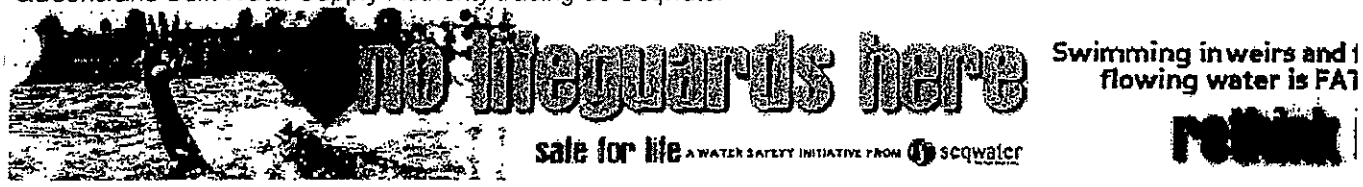
Dan Spiller

From: Rob Drury [rdrury[redacted]]
Sent: Friday, 7 January 2011 4:05 PM
To: Rob Drury; Dan Spiller
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts
Subject: RE: Technical Report W30
Attachments: image001.jpg; image002.png; Technical Situation Report W30.docx

Attached is report W30.
Basically advising the first gate is opened at Wivenhoe as at 3.00pm.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

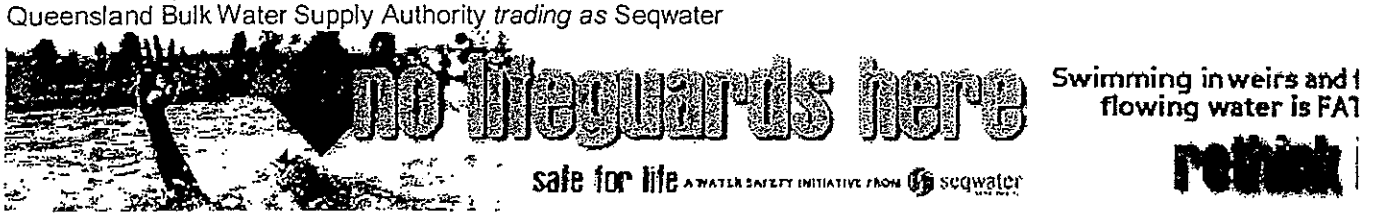
[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Friday, 7 January 2011 6:41 AM
To: 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts
Subject: RE: Technical Report W29

Attached is Report W29

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



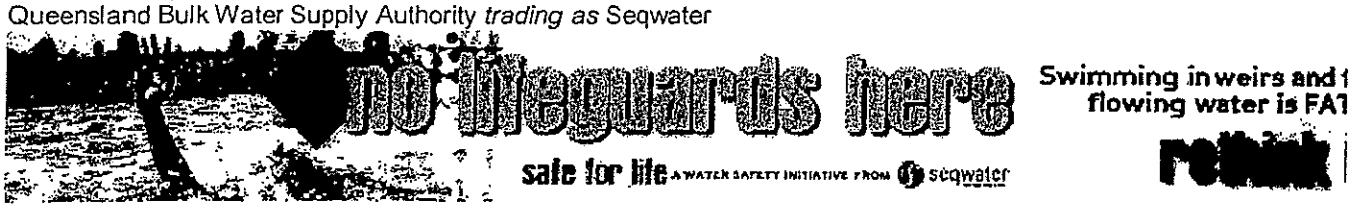
[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Thursday, 6 January 2011 12:13 PM
To: 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; 'Scott Denner'
Subject: Technical Report W28

Attached Technical Report W28.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W30	Date of TSR release	7.1.2011	Time of TSR release	3.00pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Begin discharging stored floodwaters	
Strategy	• Start releasing at 3pm today and increase up to 1200cumecs.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Ongoing inflows
	Rainfall:	
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	No impact as yet

North Pine Dam

Ongoing operations.

Somerset Dam

Somerset Dam is currently releasing at a rate of 35 cumecs and further regulator/sluice operations will be required in the next 24 to 72 hours.

The estimated event inflow volume into Somerset Dam is around 50,000ML.

Wivenhoe Dam

Wivenhoe releases commenced at 1500 Friday and will be slowly increased to about 1,200 m3/s by 1600 Saturday. It will initially be held around this level until Sunday morning at which time the release strategy will be reviewed and be dependent upon further rainfall.

Impacts of Downstream of Wivenhoe

This will mean that all of the crossings downstream of Wivenhoe with the exception of Fernvale and Mt Crosby Weir Bridge will be adversely impacted.

Councils have been advised of this strategy and are contacting residents.

Conversations have just taken place between BCC, Seqwater and BoM re impact of flows in the lower Brisbane R

Seqwater and BoM concur that a flow of a 1,500m3/s in the lower Brisbane R will only add about 50mm to the expected water levels in the City Reach on the recorded high tides. This has been demonstrated

by a comparison of the recorded water levels at Whyte Is and Brisbane City gauges during periods of no flow and periods of higher flows in the last few months.

However, it should be noted that this impact varies during the tidal cycle and is more pronounced on the low tide level that the high tide level.

It is recognized that current recorded high tide levels are 0.4 to 0.5 metres higher than predicted tides due to atmospheric conditions.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	8.1.2011	Time		or Event		

Litsupport Brisbane

From: Dan Spiller
Sent: Friday, 7 January 2011 4:24 PM
To: stephen.robertson[redacted]; lance.mccallum[redacted]; Tim.Watts[redacted]; Geoff.Stead[redacted]; Lauren.Sims[redacted]; Best Debbie; 'Martin.PeterJ[redacted]; 'Dunn.KerryG[redacted]'
Cc: Rob Drury; Mike Foster; SEQWGM Media; Reilly Bob
Subject: Update on Wivenhoe Dam releases
Attachments: Technical Situation Report W30.docx

All,

Attached is the updated technical situation report.

For Wivenhoe Dam, key points are:

- The first of the gates has opened. The release rate is planned to be increased to about 1,200 m3/s by 1400 Saturday. This is a similar release rate to last week.
- Burtons Bridge is again inundated, isolating some residents.
- Councils have been advised of this strategy and are contacting residents as necessary.
- The releases will have a minimal impact on the level of the Brisbane River in the City Reach. Seqwater and BoM concur that a total flow of a 1,500m3/s adds about 50mm to the expected water levels at that location.
- Due to atmospheric conditions, current recorded high tide levels are 0.4 to 0.5 metres higher than predicted tides.

North Pine and Leslie Harrison dams are also making gate releases. Releases from Hinze Dam are likely to be required over the weekend.

Please contact me if you require any further information.

Regards,
Dan

Daniel Spiller
Director, Operations
SEQ Water Grid Manager
[redacted]
Email: daniel.spiller[redacted]
Visit: Level 15, 53 Albert Street Brisbane
Post: PO Box 16205, City East QLD 4002
ABN: 14783 317 630

otherwise, this email represents only the views of the sender and not the views of the SEQ Water Grid Manager and/or the Queensland Government.

TECHNICAL SITUATION REPORT

TSR Number	W30	Date of TSR release	7.1.2011	Time of TSR release	3.00pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Begin discharging stored floodwaters	
Strategy	• Start releasing at 3pm today and increase up to 1200cumecs.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Ongoing inflows
	Rainfall:	
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	No impact as yet

North Pine Dam

Ongoing operations.

Somerset Dam

Somerset Dam is currently releasing at a rate of 35 cumecs and further regulator/sluice operations will be required in the next 24 to 72 hours.

The estimated event inflow volume into Somerset Dam is around 50,000ML.

Wivenhoe Dam

Wivenhoe releases commenced at 1500 Friday and will be slowly increased to about 1,200 m3/s by 1400 Saturday. It will initially be held around this level until Sunday morning at which time the release strategy will be reviewed and be dependent upon further rainfall.

Impacts of Downstream of Wivenhoe

This will mean that all of the crossings downstream of Wivenhoe with the exception of Fernvale and Mt Crosby Weir Bridge will be adversely impacted.

Councils have been advised of this strategy and are contacting residents.

Conversations have just taken place between BCC, Seqwater and BoM re impact of flows in the lower Brisbane R

Seqwater and BoM concur that a flow of a 1,500m3/s in the lower Brisbane R will only add about 50mm to the expected water levels in the City Reach on the recorded high tides. This has been demonstrated

by a comparison of the recorded water levels at Whyte Is and Brisbane City gauges during periods of no flow and periods of higher flows in the last few months.

However, it should be noted that this impact varies during the tidal cycle and is more pronounced on the low tide level that the high tide level.

It is recognized that current recorded high tide levels are 0.4 to 0.5 metres higher than predicted tides due to atmospheric conditions.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
[redacted]	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	8.1.2011	Time		or Event	

TECHNICAL SITUATION REPORT

TSR Number	W31	Date of TSR release	8.1.2011	Time of TSR release	7.00am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge floodwater as quickly as possible	
Strategy	• Continue to increase releases from 890cumecs this morning to 1200cumecs by lunchtime • This should keep Fernvale and Mt Crosby bridges clear however further predicted rainfall may impact.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Ongoing inflows
	Rainfall:	
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Minimal impact as per previous discussions and releases.

Rainfall

Since 0900 Friday, there has been widespread 20 to 40mm throughout North Pine, Somerset and Wivenhoe catchments with isolated higher totals of 70mm in the upper reaches of the Brisbane R. No significant rain has fallen in the past 12 hours.

Advice from BoM indicates that SE Qld can expect further high rainfall totals over the next 4 days.

Saturday: Rain light at times 5-50mm with higher falls along the coast
Sunday: Widespread rain with totals between 50-100mm
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Tuesday: Rain easing with totals between 25-50mm

Given the saturated conditions of the catchments, significant inflows to Seqwater dams will be generated, especially following the forecast rainfall on Sunday/Monday

North Pine (Full Supply Level 39.60 m AHD)

At 0600 Saturday, North Pine Lake Level was 39. 46 m AHD and slowly rising. Currently 3 gates are open to release runoff from rain on Wed/Thursday/Friday. Given the very high likelihood of significant runoff during the next 4 days, gates will be keep open to match inflows over the next few days, rather than opening and closing at various times with short notice. Youngs Crossing will remain adversely impacted for the duration of the gates being open. Moreton Bay Regional Council has been advised and concurs with this strategy.

Somerset (Full Supply Level 99.00 m AHD)

At 0500 Saturday, Somerset Dam level was 100.42m AHD and rising. The Dam is releasing into Wivenhoe through one open sluice gate. Water will be temporarily held in Somerset to allow the inflow from the upper Brisbane is passed through the system. However, this strategy may need to be reviewed if significant runoff occurs in the Stanley and Upper Brisbane. Under circumstances of high inflows to Somerset and Wivenhoe, it is the usual practice to hold flood water in Somerset until there is a high level of confidence in the estimated inflows to Wivenhoe.

Since the commencement of the event on 02/01/2011, approximately 85,000ML has flowed into Somerset Dam with a further 20,000ML expected based on the recorded rainfall to date. Approximately 25,000ML has been released into Wivenhoe.

Wivenhoe (Full Supply Level 67.00 m AHD)

At 0600 Saturday, Wivenhoe Dam was 68.45 m AHD and rising steadily with all five gates open and releasing about 890 m3/s. River levels upstream of Wivenhoe Dam were rising again, generating further inflow to the dam It is intended to ramp up the release from Wivenhoe to 1,200m3/s by midday Saturday 08/01/2011. Further assessments will be undertaken to determine increases above this level. However, given the high likelihood of significant inflows in the next week, this may be increased.

Since the commencement of the event on 02/01/2011, approximately 200,000ML has flowed into Wivenhoe Dam (including Somerset releases) with a further 180,000ML expected based on the recorded rainfall to date. Approximately 50,000ML has been released from Wivenhoe via the hydro and regulator at about 50m3/s.

Impacts downstream of Wivenhoe

The projected Wivenhoe release of 1,200m3/s combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing) will be adversely impacted for several days. At this stage Fernvale and Mt Crosby Weir Bridge are not expected to be affected but they could potentially be affected if the predicted rainfall totals eventuate.

The current available assessments indicate that the combined flow in the lower Brisbane R would only add 50mm to an upper limit of 100mm to the recorded water levels in the City Reach of the Brisbane Rive. However, it is noted that tides in the lower Brisbane R will be 0.4 to 0.5 metres higher than predicted tides

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the Wivenhoe operating strategy.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and closed late last night but further operations are likely.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

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SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	**Date**		**Time**		**or Event**	Change in strategy

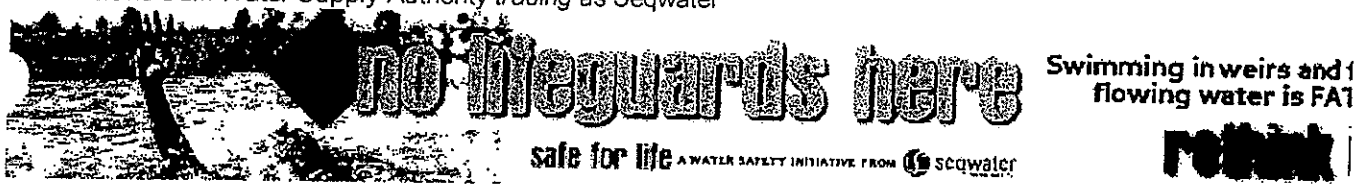
Dan Spiller

From: Rob Drury [rdrury[redacted]]
Sent: Saturday, 8 January 2011 7:46 AM
To: Rob Drury; Dan Spiller
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts
Subject: RE: Technical Report W31
Attachments: image001.jpg; image002.png; Technical Situation Report W31.docx

Attached report number W31.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W31	Date of TSR release	8.1.2011	Time of TSR release	7.00am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge floodwater as quickly as possible	
Strategy	• Continue to increase releases from 890cumecs this morning to 1200cumecs by lunchtime • This should keep Fernvale and Mt Crosby bridges clear however further predicted rainfall may impact.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Ongoing inflows
	Rainfall:	
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Minimal impact as per previous discussions and releases.

Rainfall

Since 0900 Friday, there has been widespread 20 to 40mm throughout North Pine, Somerset and Wivenhoe catchments with isolated higher totals of 70mm in the upper reaches of the Brisbane R. No significant rain has fallen in the past 12 hours.

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Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the Wivenhoe operating strategy.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

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(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

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(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date		Time		or Event	Change in strategy

John Adcock

From: Paul Bird [pbird[redacted]]
Sent: Saturday, 8 January 2011 7:54 AM
To: SEQWGM Media; Barry Dennien; Dan Spiller; Scott Denner
Cc: Geoff.Stead[redacted]; Michael Lyons; ELT
Subject: Water Release Update

As at 8.00 on Saturday 8 January, the following applies:

SOMERSET DAM:
Water is being released into Wivenhoe through a sluice gate.

WIVENHOE DAM:
Gate operations have commenced and releases are expected to reach around 100,000 megalitres a day by the afternoon of Saturday 8 January. Releases will be reviewed and may change according to rainfall, inflows and river flows.

Local Councils are being advised that Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing may be inundated for several days.

At this stage, no adverse impacts are expected for Fernvale Bridge, or Mt Crosby Weir Bridge, although this may change depending on rainfall.

NORTH PINE DAM:
Gate operations commenced during the evening of Thursday 6 January and may continue until next week.

The local Council was advised prior to the gate operation commencing that Youngs Crossing may be inundated.

LESLIE HARRISON DAM:
Due to rainfall, a release is underway and may continue until next week.

HINZE DAM:
A release through the emergency gates is expected during the weekend. There is no public access to the spillway.

For detailed information on road crossing closures and other potential impacts, always contact your local council.

RECREATION UPDATE:

Lake Wivenhoe
Lake Wivenhoe is currently closed to water based recreation activities, and is expected to remain closed for some days, due to the high water levels.

Lake Somerset
Lake Somerset will be temporarily closed to water based recreation activities from 6.00pm Friday 7 January due to the high water levels and is expected to remain closed over the weekend, and possibly into next week, depending upon the conditions.

The following recreation sites are currently closed due to submerged infrastructure, or dangerous conditions –

- O'Sheas Crossing
- Hamon Cove

- Logan Inlet
- Captain Logan Camp
- River access at Atkinson's Crossing
- Billies Bay/Hays Landing
- The Spit
- Lake Somerset Holiday Park Kirkleagh [Boat ramps only]

Other recreation areas at Lake Wivenhoe are open for land based recreation activities.
The Spillway Lookout recreation area is open, however visitors are advised that there may be long delays due to the numbers of people on site. Security staff and traffic controllers will be on site to assist with visitor management – all visitors must comply with the reasonable directions of security staff and traffic controllers.

Lake Borumba
Yabba Creek Road between Imbil and Borumba Dam is currently closed, meaning that access to the lake is not available and be closed for several days.

Lake Baroon
Lake Baroon has been closed to on-water recreation activities due to the current lake level. The recreation areas at Lake Baroon are open for land based activities.

Lake Maroon
Lake Maroon remains closed to water skiing and swimming but is open to boating and fishing.

Care should be taken at the recreation sites that are open, with the ground being totally saturated. Vehicles must be parked only in designated parking areas, and should not be driven onto grassed areas.

This information will be updated if any significant changes occur.

Paul Bird
Senior Communications Advisor
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

[redacted] E pbird[redacted]
Level 3, 240 Margaret St, Brisbane City QLD 4000
PO Box 16146, City East QLD 4002
Website | www.seqwater.com.au

Litsupport Brisbane

From: Dan Spiller
Sent: Saturday, 8 January 2011 9:00 AM
To: stephen.robertson[redacted]; Lance McCallum (lance.mccallum[redacted]); Tim Watts (tim.watts[redacted]); Geoff Stead (geoff.stead[redacted]); lauren.sims[redacted]; Debbie Best (debbie.best[redacted]); Martin.PeterJ[redacted]; Dunn.KerryG[redacted]
Cc: Rob Drury (rdrury[redacted]); mfoster[redacted]; SEQWGM Media; Damien Brown (damien.brown[redacted]); bob.reilly[redacted]; Madgwick.DarrenT[redacted]; Scott Denner
Subject: Water Grid operations update: 8/1/11
Attachments: Technical Situation Report W31.docx

All,

Dam releases

Attached is the current technical situation report.

Releases are being made from Somerset, Wivenhoe, North Pine and Leslie Harrison dams, with forecasts of high rainfall totals over the next four days.

For Wivenhoe Dam:

- All five gates are now open with the release rate planned to increase to 1200 cubic metres per second by midday today. This release rate is less than peak release from October 2010.
- The release strategy will continue to be reviewed based on actual rainfall. With significant inflows, it may need to be increased.
- As advised yesterday, a number of local birdges have been inundated by releases and local flows. The Fernvale and Mt Crosby Weir Bridges could potentially also be affected if predicted rainfall totals eventuate.
- The BoM and Seqwater concur that current releases will increase the level of the lower Brisbane River by about 50 to 100mm. There is currently a 40 to 50mm atmospheric anomaly.

Releases from North Pine and Leslie Harrison dams are continuing. Releases from Hinze Dam are expected to be required over the weekend.

Water treatment

In terms of operations, Lockyer Valley flows have again caused a turbity spike in the Brisbane River. Impacts are expected to peak today at Mt Crosby today, before being diluted by dam releases. There are similar issues at some other locations.

Despite the spike, all key plants are currently operating within critical limits with any impacts being monitored. Seqwater and Linkwater have prepared for potential issues by increasing treated water storage and staffing at some treatment plants. Desalination is at one-third capacity and ready to increase production within two hours of an instruction (but is unlikely to be required in this event).

With forecast rainfall, these type of issues are likely to recur over the remainder of the wet season.

Please call me on [redacted] if you require any further information.

Regards,
Dan

TECHNICAL SITUATION REPORT

TSR Number	W31	Date of TSR release	8.1.2011	Time of TSR release	7.00am

Seqwater status of inflows and dam operations

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Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the Wivenhoe operating strategy.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and are continuing.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
[redacted]	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

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BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

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ICC Technical Officer contact details	[redacted]

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SRC Technical Officer name	Tony Jacobs
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SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date		Time		or Event	Change in strategy

Gina O'Driscoll

From: Dan Spiller
Sent: Saturday, 8 January 2011 9:24 AM
To: Gary Humphrys; Gordon Jardine; Teresa Dyson; Dr David Cunliffe; Jamie Quinn
Cc: Barry Dennien; Elaina Smouha; Aleisha Paine; Scott Denner; Joanne Collins; SEQWGM Media
Subject: Update on Water Grid operations

Board,

After a couple of dry days, we are back in operational mode. Below is a summary of current status. Apologies that my updates have not been more regular.

Dam releases

Releases are being made from Somerset, Wivenhoe, North Pine and Leslie Harrison dams, with forecasts of high rainfall totals over the next four days.

For Wivenhoe Dam:

- All five gates are now open with the release rate planned to increase to 1200 cubic metres per second by midday today. This release rate is less than peak release from October 2010 (1500 cubic metres per second).
- The release strategy will continue to be reviewed based on actual rainfall. With significant inflows, it may need to be increased. Widespread rainfall of up to 200mm is forecast over four days, potentially resulting in major inflows.
- A number of local birdges have been inundated by releases and local flows. The Fernvale and Mt Crosby Weir Bridges could potentially also be affected if predicted rainfall totals eventuate.
- The BoM and Seqwater concur that current releases will increase the level of the lower Brisbane River by about 50 to 100mm. There is currently a 40 to 50mm atmospheric anomaly.

Releases from North Pine and Leslie Harrison dams are continuing. Releases from Hinze Dam are expected to be required over the weekend.

Councils have been consulted and agree with the release strategy. Somerset Regional Council now provides early advice to residents who will be isolated by the inundation of Burtons Bridge.

We are preparing a proposal to Somerset Regional Council for the Grid to pay for resupply of residents, should they be isolated for more than five days (with Council to arrange the supply). I will provide more details next week.

Water treatment

In terms of operations, Lockyer Valley flows have again caused a turbity spike in the Brisbane River. Impacts are expected to peak today at Mt Crosby today, before being diluted by dam releases. There are similar issues at some other locations.

Despite the spike, all key plants are currently operating within critical limits, with impacts being monitored. Seqwater and Linkwater have prepared for potential issues by increasing treated water storage and staffing at some treatment plants. Desalination is at one-third capacity and ready to increase production to two-thirds within two hours of an instruction (but is unlikely to be required in this event).

There continue to be very few taste and odour complaints.

We are having daily operational teleconferences with all Grid Participants.

With forecast rainfall, these type of issues are likely to recur over the remainder of the wet season. Our key concern are towns with stand alone supplies, such as Lowood.

For interest only, Seqwater is managing a range of entity specific operational issues across the region. For example, Noosa is being operated remotely due to the causeway to the plant having been inundated. At Beaudesert, bank stabilisation is underway because the pump station was being undermined. Many of these issues are being managed by transferring staff around the region, which was not possible prior to the reforms (for example, from the Caboolture and South Maclean WTPs, which are shutdown).

Media

There has been renewed interest in gate releases and the operation of the desalination facility. I have done some television and radio interviews and we are again putting out daily updates on releases.

Going forward, Robert Macdonald from the Courier Mail has asked to do a "day in the life" article on dam operations from our Emergency Management Room. We have sought approval. There has also been a request as to whether the Premier could do media updates on the flood situation from our Emergency Management Room - which I doubt will eventuate.

Please call me on [redacted] if you require any further information.

Regards,
Dan

Dan Spiller

From: Dan Spiller
Sent: Saturday, 8 January 2011 9:48 AM
To: Best Debbie
Subject: RE: Water Grid operations update: 8/1/11

Debbie,

We expect river levels to be similar to yesterday, and again due to tides rather than releases.

River yesterday peaked at about 1.85 metres at the Port Office gauge. The high peak was due almost entirely due to tides and a 0.4 to 0.5 metre atmospheric anomaly.

BoM and Seqwater agree that flows of 1500 cumecs over Mt Crosby will contribute about 0.05m (50mm) to peak river levels at the Port Office gauge. We are planning to release at 1200 cumecs from midday, with an allowance for Lockyer Valley flows (which peaked at about 500 cumecs this week and are reducing). For interest only, the impact on low tide levels is greater - meaning that there is less variation in river levels.

The key risk will be if the high rainfall eventuates (200mm over four days). We will review as this occurs, but in the meantime it is important that we get the flood storage compartment down to give ourselves some flexibility.

Looking forward, we are preparing a more detailed brief on potential scenarios with the upcoming January and February peak tides. The challenge is that river levels are due to about five different factors, of which only tides can be predicted this far out. Atmospheric anomolies can only be predicted a few days out.

Short answer is that we expect ongoing low level flooding (defined by BCC as 1.7m at the Port Office gauge). Moderate Brisbane River flooding as defined by BCC would still require significantly larger releases than have been made at any time since Wivenhoe Dam was completed, potentially combined with another large atmospheric anomoly. Note that local flooding can occur for a range of other reasons, as flagged in the CM today.

Hope this helps.

an

From: Best Debbie [Debbie.Best[redacted]]
Sent: Saturday, 8 January 2011 9:28 AM
To: Dan Spiller
Subject: Fw: Water Grid operations update: 8/1/11

Dan you give detail?
Debbie

----- Original Message -----
From: Ken Smith <Ken.Smith[redacted]>
To: Best Debbie
Sent: Sat Jan 08 09:26:23 2011
Subject: Re: Water Grid operations update: 8/1/11

Thanks Deb. Can't access the attachment at home. Likelihood of localised flooding?

----- Original Message -----
From: Best Debbie <Debbie.Best[redacted]>

To: Ken Smith
Sent: Sat Jan 08 09:16:40 2011
Subject: Fw: Water Grid operations update: 8/1/11

Ken
A bit of action in SE which you need to be aware of. WGM is liaising with the LDMG. Debbie

----- Original Message -----
From: Dan Spiller <Daniel.Spiller[redacted]>
To: stephen.robertson[redacted] <stephen.robertson[redacted]>;
Lance McCallum (lance.mccallum[redacted])
<lance.mccallum[redacted]>; Tim Watts (tim.watts[redacted])
<tim.watts[redacted]>; Geoff Stead (geoff.stead[redacted])
<geoff.stead[redacted]>; lauren.sims[redacted]
<lauren.sims[redacted]>; Best Debbie; Martin.PeterJ[redacted]
<Martin.PeterJ[redacted]; Dunn.KerryG[redacted]
<Dunn.KerryG[redacted]
Cc: Rob Drury (rdrury[redacted] <rdrury[redacted]>; mfoster[redacted]
<mfoster[redacted]>; Media @ SEQWGM; Brown Damien; Reilly Bob;
Madgwick.DarrenT[redacted] <Madgwick.DarrenT[redacted]>; Denner Scott @
SEQWGM
Sent: Sat Jan 08 08:59:30 2011
Subject: Water Grid operations update: 8/1/11

All,

Dam releases

Attached is the current technical situation report.

Releases are being made from Somerset, Wivenhoe, North Pine and Leslie Harrison dams, with forecasts of high rainfall totals over the next four days.

For Wivenhoe Dam:

* All five gates are now open with the release rate planned to increase to 1200 cubic metres per second by midday today. This release rate is less than peak release from October 2010.
* The release strategy will continue to be reviewed based on actual rainfall. With significant inflows, it may need to be increased.
As advised yesterday, a number of local birdges have been inundated by releases and local flows. The Fernvale and Mt Crosby Weir Bridges could potentially also be affected if predicted rainfall totals eventuate.
* The BoM and Seqwater concur that current releases will increase the level of the lower Brisbane River by about 50 to 100mm. There is currently a 40 to 50mm atmospheric anomaly.

Releases from North Pine and Leslie Harrison dams are continuing. Releases from Hinze Dam are expected to be required over the weekend.

Water treatment

In terms of operations, Lockyer Valley flows have again caused a turbity spike in the Brisbane River. Impacts are expected to peak today at Mt Crosby today, before being diluted by dam releases. There are similar issues at some other locations.

Despite the spike, all key plants are currently operating within critical limits with any impacts being monitored. Seqwater and Linkwater have prepared for potential issues by increasing treated water storage and staffing at some treatment plants. Desalination is at one-third capacity and ready to increase production within two hours of an instruction (but is unlikely to be required in this event).

With forecast rainfall, these type of issues are likely to recur over the remainder of the wet season.

Please call me on [redacted] if you require any further information.

Regards,
Dan

Suzie Emery

From: Best Debbie [Debbie.Best[redacted]]
Sent: Saturday, 8 January 2011 10:11 AM
To: Dan Spiller
Subject: Fw: Water Grid operations update: 8/1/11

Fyi

----- Original Message -----
From: Ken Smith <Ken.Smith[redacted]>
To: Best Debbie
Sent: Sat Jan 08 10:09:48 2011
Subject: Re: Water Grid operations update: 8/1/11

Thanks Deb. Let Dan know his analysis was quite helpful.

----- Original Message -----
From: Best Debbie <Debbie.Best[redacted]>
To: Ken Smith
Sent: Sat Jan 08 09:52:47 2011
Subject: Fw: Water Grid operations update: 8/1/11

A summary of impacts

----- Original Message -----
From: Dan Spiller <Daniel.Spiller[redacted]>
To: Best Debbie
Sent: Sat Jan 08 09:47:48 2011
Subject: RE: Water Grid operations update: 8/1/11

Debbie,

We expect river levels to be similar to yesterday, and again due to tides rather than releases.

River yesterday peaked at about 1.85 metres at the Port Office gauge. The high peak was due almost entirely due to tides and a 0.4 to 0.5 metre atmospheric anomaly.

BOM and Seqwater agree that flows of 1500 cumecs over Mt Crosby will contribute about 0.05m (50mm) to peak river levels at the Port Office gauge. We are planning to release at 1200 cumecs from midday, with an allowance for Lockyer Valley flows (which peaked at about 500 cumecs this week and are reducing). For interest only, the impact on low tide levels is greater - meaning that there is less variation in river levels.

The key risk will be if the high rainfall eventuates (200mm over four days). We will review as this occurs, but in the meantime it is important that we get the flood storage compartment down to give ourselves some flexibility.

Looking forward, we are preparing a more detailed brief on potential scenarios with the upcoming January and February peak tides. The challenge is that river levels are due to about five different factors, of which only tides can be predicted this far out. Atmospheric anomolies can only be predicted a few days out.

Short answer is that we expect ongoing low level flooding (defined by BCC as 1.7m at the Port Office gauge). Moderate Brisbane River flooding as defined by BCC would still require significantly larger releases than have been made at any time since Wivenhoe Dam was completed, potentially combined with another large atmospheric anomoly. Note that local flooding can occur for a range of other reasons, as flagged in the CM today.

Hope this helps.

Dan

From: Best Debbie [Debbie.Best[redacted]]
Sent: Saturday, 8 January 2011 9:28 AM
To: Dan Spiller
Subject: Fw: Water Grid operations update: 8/1/11

Dan you give detail?
Debbie

----- Original Message -----
From: Ken Smith <Ken.Smith[redacted]>
To: Best Debbie
Sent: Sat Jan 08 09:26:23 2011
Subject: Re: Water Grid operations update: 8/1/11

Thanks Deb. Can't access the attachment at home. Likelihood of localised flooding?

----- Original Message -----
From: Best Debbie <Debbie.Best[redacted]>
To: Ken Smith
Sent: Sat Jan 08 09:16:40 2011
Subject: Fw: Water Grid operations update: 8/1/11

Ken
A bit of action in SE which you need to be aware of. WGM is liaising with the LDMG. Debbie

----- Original Message -----
From: Dan Spiller <Daniel.Spiller[redacted]>
To: stephen.robertson[redacted] <stephen.robertson[redacted]>; Lance McCallum (lance.mccallum[redacted]) <lance.mccallum[redacted]>; Tim Watts (tim.watts[redacted]) <tim.watts[redacted]>; Geoff Stead (geoff.stead[redacted]) <geoff.stead[redacted]>; lauren.sims[redacted] <lauren.sims[redacted]>; Best Debbie; Martin.Peter[redacted] <Martin.Peter[redacted]>; Dunn.KerryG[redacted] <Dunn.KerryG[redacted]>
Cc: Rob Drury (rdrury[redacted]) <rdrury[redacted]>; mfoster[redacted] <mfoster[redacted]>; Media @ SEQWGM; Brown Damien; Reilly Bob; adgwick.DarrenT[redacted] <Madgwick.DarrenT[redacted]>; Denner Scott @ SEQWGM
Sent: Sat Jan 08 08:59:30 2011
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* As advised yesterday, a number of local birdges have been inundated by releases and local flows. The Fernvale and Mt Crosby Weir Bridges could potentially also be affected if predicted rainfall totals eventuate.
* The BoM and Seqwater concur that current releases will increase the level of the lower Brisbane River by about 50 to 100mm. There is currently a 40 to 50mm atmospheric anomaly.

Releases from North Pine and Leslie Harrison dams are continuing. Releases from Hinze Dam are expected to be required over the weekend.

Water treatment

In terms of operations, Lockyer Valley flows have again caused a turbity spike in the Brisbane River. Impacts are expected to peak today at Mt Crosby today, before being diluted by dam releases. There are similar issues at some other locations.

Despite the spike, all key plants are currently operating within critical limits with any impacts being monitored. Seqwater and Linkwater have prepared for potential issues by increasing treated water storage and staffing at some treatment plants. Desalination is at one-third capacity and ready to increase production within two hours of an instruction (but is unlikely to be required in this event).

With forecast rainfall, these type of issues are likely to recur over the remainder of the wet season.

Please call me on [redacted] if you require any further information.

Regards,
Dan

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TECHNICAL SITUATION REPORT

TSR Number	W32	Date of TSR release	9.1.2011	Time of TSR release	7.00a m

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue current releases to discharge floodwater as quickly as possible	
Strategy	• Continue the current releases of around 1350cumecs or 116,000ML per day, however this may change slightly depending on other flows to maintain around 1600cumecs in the mid Brisbane River • This should keep Fernvale and Mt Crosby bridges clear however if further predicted rainfall occurs there may be impacts on these bridges too	
Key considerations	Storage levels:	Above FSL
	Inflows:	Ongoing inflows
	Rainfall:	
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Minimal impact as per previous discussions and releases.

Rainfall

Catchment average rainfall for the past 12 hours is; North Pine Dam (less than 10 mm); Somerset Dam (40 mm); Wivenhoe Dam (less than 10 mm). The bulk of the rain that has fallen in the Somerset Dam catchment has occurred in the last two hours, with recorded falls exceeding 60mm in some areas. The BOM forecast for the next seven days issued at 0450 this morning is:-

Sunday:	Rain periods.
Monday:	Rain periods.
Tuesday:	Rain periods.
Wednesday	A few showers.
Thursday	A shower or two.
Friday	A shower or two.
Saturday	Mostly fine.

A severe whether warning remains current for heavy rainfall in the dam catchment areas. The dam catchments are relatively saturated and significant inflows will be generated if the forecast rainfall eventuates.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level is currently 39.47 m AHD and steady. Two radial gates remain open to release runoff generated from recent rainfall. Based on rainfall forecasts, the radial gates have been kept open in anticipation of further inflows over the next few days. However unless significant rain falls today, consideration will be given to closing the gates late this afternoon or early tomorrow morning and discussions to finalise a decision on the timing of radial gate closure will be held with the Moreton Bay Regional Council later today. Youngs crossing will remain closed while releases are in progress.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is currently falling slowly, with the current level being 100.27m AHD. However the rain that has fallen in the dam catchment over the last two hours (recorded falls exceed 60mm in some areas) will result in significant inflows later today. The current release rate into Wivenhoe Dam is 35,000ML/day. Since the commencement of the event on 02/01/2011approximately 56,000ML has been released from the dam, with a total of at least 150,000ML to be released based on the currently recorded rainfall. The total release for the event is likely to increase significantly over the next few days based on the current rainfall forecasts. At this stage, releases will continue until at least Tuesday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

The dam level is currently falling slowly, with the current level being 68.58m AHD. River levels upstream of the dam are receding, however further inflows will result from any additional rainfall. The current gate operation strategy will maintain flows of around 1,600m^3/s in the mid-Brisbane River. The current release rate from Wivenhoe Dam is 116,000ML/day. Since the commencement of the event on 02/01/2011approximately 150,000ML has been released from the dam, with a total of at least 450,000ML to be released based on the currently recorded rainfall. The total release for the event is likely to increase over the next few days based on the current rainfall forecasts. At this stage, releases will continue until at least Wednesday.

Impacts downstream of Wivenhoe Dam

The current Wivenhoe Dam release combined with Lockyer flows and local runoff will mean that all low level crossings downstream of Wivenhoe (Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing) will be adversely impacted until at least Wednesday 12 January. At this stage Fernvale and Mt Crosby Weir Bridge are not expected to be affected, but this may be revised if the predicted rainfall totals eventuate and higher releases from Wivenhoe Dam are considered necessary.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the Wivenhoe operating strategy.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and closed late last night. However further releases are likely.

Hinze Dam

The gate opening of 300mm continues today and may for several days depending on inflows.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	**Date**		**Time**		**or Event**	Change in strategy

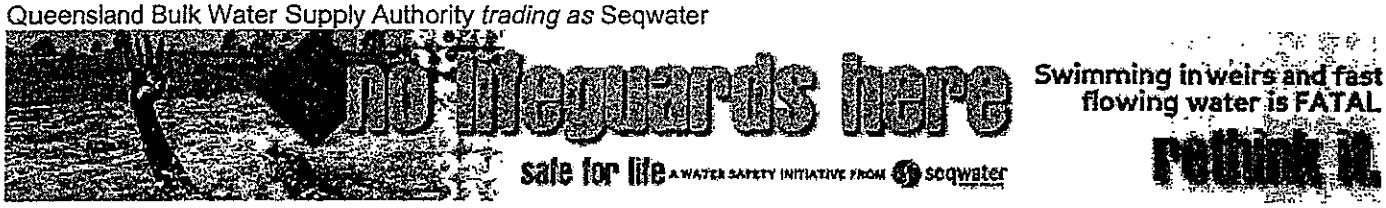
Litsupport Brisbane

From: Rob Drury [rdrury[redacted]]
Sent: Sunday, 9 January 2011 7:50 AM
To: Rob Drury; Dan Spiller
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; Arminda Roberts
Subject: RE: Technical Report W31
Attachments: Technical Situation Report W32.docx

Would like to blame the computer system but purely operator error.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Sunday, 9 January 2011 7:26 AM
To: Rob Drury; 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; Arminda Roberts
Subject: RE: Technical Report W31

Please find attached Report W31.
Basically continuing releases to maintain 1600 cumecs total flow in the mid Brisbane but watching predicted rainfall as the strategy may change. Fernvale and Mt Crosby bridges still should be unaffected but does depend on what rain we get today or tomorrow.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Saturday, 8 January 2011 7:46 AM
To: Rob Drury; 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts
Subject: RE: Technical Report W31

Attached report number W31.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
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Website | www.seqwater.com.au

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TECHNICAL SITUATION REPORT

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Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

D70

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

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Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

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ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

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SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date		Time		or Event	Change in strategy

D72

From: Paul Bird <pbird[redacted]>
Sent: Sunday, January 9, 2011 7:57 AM
To: SEQWGM Media <media[redacted]>; aroebuck[redacted]; greg.swain[redacted]; GSTUBBS[redacted]; Kathy Petrik <Kathy.Petrik[redacted]>; lisa.m.martin[redacted]; Paula Weston <paula.weston[redacted]>; tjacobs[redacted]; Barry Dennien <Barry.Dennien[redacted]>; Dan Spiller <Daniel.Spiller[redacted]>; Scott Denner <Scott.Denner[redacted]>; Arminda Roberts <aroberts[redacted]>; Bec Middlemiss <bmiddlemiss[redacted]>; Michael Fiechtner <MFiechtner[redacted]>; Mike Foster <mfoster[redacted]>; Tara King <tking[redacted]>
Cc: Mike Foster <mfoster[redacted]>; Michael Lyons <Michael.Lyons[redacted]>; ELT <ELT[redacted]>; Geoff.Stead[redacted]
Subject: Water Release Update

As at 8.00 on Sunday 9 January, the following applies:

SOMERSET DAM:
Water is being released into Wivenhoe through sluice gates and the release will continue until early next week.

WIVENHOE DAM:
Gate Releases of around 116,000 megalitres a day are underway and are likely to continue until mid next week.

Local Councils have been advised that Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing may be inundated for several days.

At this stage, no adverse impacts are expected for Fernvale Bridge, or Mt Crosby Weir Bridge, although this may change depending on rainfall.

NORTH PINE DAM:
Gate operations are being reviewed and the gates may be closed today or tomorrow morning however any further rain may mean continued releases.

The local Council is being kept informed regarding Youngs Crossing.

LESLIE HARRISON DAM:

Releases ceased last night but may be required at short notice due to further inflows.

HINZE DAM:
A minor release through the emergency gates is underway. There is no public access to the spillway.

For detailed information on road crossing closures and other potential impacts, always contact your local council.

RECREATION UPDATE:

Lake Wivenhoe
Lake Wivenhoe is currently closed to water based recreation activities, and is expected to remain closed for some days, due to the high water levels.

Lake Somerset
Lake Somerset is closed to water based recreation activities due to the high water levels and is expected to remain closed into next week, depending upon the conditions.

The following recreation sites are currently closed due to submerged infrastructure, or dangerous conditions –

- O'Sheas Crossing
- Hamon Cove
- Logan Inlet
- Captain Logan Camp
- River access at Atkinson's Crossing
- Billies Bay/Hays Landing
- The Spit
- Lake Somerset Holiday Park Kirkleagh [Boat ramps only]

Other recreation areas at Lake Wivenhoe are open for land based recreation activities.
The Spillway Lookout recreation area is open; however visitors are advised that there may be long delays due to the numbers of people on site. Security staff and traffic controllers will be on site to assist with visitor management – all visitors must comply with the reasonable directions of security staff and traffic controllers.

Lake Borumba
Yabba Creek Road between Imbil and Borumba Dam is currently closed; meaning that access to the lake is not available and be closed for several days.

Lake Baroon
Lake Baroon has been closed to on-water recreation activities due to the current lake level. The recreation areas at Lake Baroon are open for land based activities.

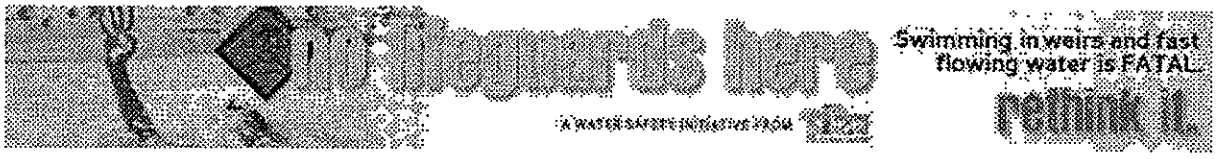
Lake Maroon
Lake Maroon remains closed to water skiing and swimming but is open to boating and fishing.

Care should be taken at the recreation sites that are open, with the ground being totally saturated. Vehicles must be parked only in designated parking areas, and should not be driven onto grassed areas.

This information will be updated if any significant changes occur.

Paul Bird
Senior Communications Advisor
Queensland Bulk Water Supply Authority *trading as* Seqwater

[redacted] E pbird[redacted]
Level 3, 240 Margaret St, Brisbane City QLD 4000
PO Box 16146, City East QLD 4002
Website | www.seqwater.com.au



Litsupport Brisbane

From: Dan Spiller
Sent: Sunday, 9 January 2011 8:14 AM
To: stephen.robertson[redacted]; Lance McCallum (lance.mccallum[redacted]); Tim Watts (tim.watts[redacted]); Geoff Stead (geoff.stead[redacted]); lauren.sims[redacted]; Debbie Best (debbie.best[redacted]); Martin.PeterJ[redacted]; Dunn.KerryG[redacted]
Cc: Rob Drury (rdrury[redacted]); pbird[redacted]; SEQWGM Media; Damien Brown (damien.brown[redacted]); bob.reilly[redacted]; Madgwick.DarrenT[redacted]
Subject: Water Grid operations update: 9/1
Attachments: Technical Situation Report W32.docx

All,

Current technical situation report.

Key points are:

- Wivenhoe Dam is continuing releases at about 116,000 ML/day. Releases are expected to continue until at least Wednesday.
- A severe weather warning remains current for dam catchments. There has been heavy rainfall in the Somerset Dam catchment over the past two hours.
- The release strategy will continue to be reviewed based on actual rainfall.
- Releases are being made so as to avoid inundating the Fernvale and Mt Crosby Weir Bridges. Other flows may impact on the bridges, should the forecast rainfall eventuate.
- North Pine Dam may cease releases today or tomorrow morning, depending upon actual rainfall.
- Many dams and recreation areas are closed.

Please call me on [redacted] if you require any further information.

Regards,
Daniel Spiller

TECHNICAL SITUATION REPORT

TSR Number	W32	Date of TSR release	9.1.2011	Time of TSR release	7.00am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue current releases to discharge floodwater as quickly as possible	
Strategy	• Continue the current releases of around 1350cumecs or 116,000ML per day, however this may change slightly depending on other flows to maintain around 1600cumecs in the mid Brisbane River • This should keep Fernvale and Mt Crosby bridges clear however if further predicted rainfall occurs there may be impacts on these bridges too	
Key considerations	Storage levels:	Above FSL
	Inflows:	Ongoing inflows
	Rainfall:	
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Minimal impact as per previous discussions and releases.

Rainfall

Catchment average rainfall for the past 12 hours is; North Pine Dam (less than 10 mm); Somerset Dam (40 mm); Wivenhoe Dam (less than 10 mm). The bulk of the rain that has fallen in the Somerset Dam catchment has occurred in the last two hours, with recorded falls exceeding 60mm in some areas. The BOM forecast for the next seven days issued at 0450 this morning is:-

Sunday:	Rain periods.
Monday:	Rain periods.
Tuesday:	Rain periods.
Wednesday	A few showers.
Thursday	A shower or two.
Friday	A shower or two.
Saturday	Mostly fine.

A severe whether warning remains current for heavy rainfall in the dam catchment areas. The dam catchments are relatively saturated and significant inflows will be generated if the forecast rainfall eventuates.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level is currently 39.47 m AHD and steady. Two radial gates remain open to release runoff generated from recent rainfall. Based on rainfall forecasts, the radial gates have been kept open in anticipation of further inflows over the next few days. However unless significant rain falls today,

consideration will be given to closing the gates late this afternoon or early tomorrow morning and discussions to finalise a decision on the timing of radial gate closure will be held with the Moreton Bay Regional Council later today. Youngs crossing will remain closed while releases are in progress.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is currently falling slowly, with the current level being 100.27m AHD. However the rain that has fallen in the dam catchment over the last two hours (recorded falls exceed 60mm in some areas) will result in significant inflows later today. The current release rate into Wivenhoe Dam is 35,000ML/day. Since the commencement of the event on 02/01/2011approximately 56,000ML has been released from the dam, with a total of at least 150,000ML to be released based on the currently recorded rainfall. The total release for the event is likely to increase significantly over the next few days based on the current rainfall forecasts. At this stage, releases will continue until at least Tuesday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

The dam level is currently falling slowly, with the current level being 68.58m AHD. River levels upstream of the dam are receding, however further inflows will result from any additional rainfall. The current gate operation strategy will maintain flows of around 1,600m^3/s in the mid-Brisbane River. The current release rate from Wivenhoe Dam is 116,000ML/day. Since the commencement of the event on 02/01/2011approximately 150,000ML has been released from the dam, with a total of at least 450,000ML to be released based on the currently recorded rainfall. The total release for the event is likely to increase over the next few days based on the current rainfall forecasts. At this stage, releases will continue until at least Wednesday.

Impacts downstream of Wivenhoe Dam

The current Wivenhoe Dam release combined with Lockyer flows and local runoff will mean that all low level crossings downstream of Wivenhoe (Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing) will be adversely impacted until at least Wednesday 12 January. At this stage Fernvale and Mt Crosby Weir Bridge are not expected to be affected, but this may be revised if the predicted rainfall totals eventuate and higher releases from Wivenhoe Dam are considered necessary.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the Wivenhoe operating strategy.

Leslie Harrison Dam

Following the heavy rainfall Wednesday night, gate operations commenced at Leslie Harrison Dam late Wednesday night and closed late last night. However further releases are likely.

Hinze Dam

The gate opening of 300mm continues today and may for several days depending on inflows.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qlc[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised and do not have a problem with the new strategy.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date		Time		or Event	Change in strategy

TECHNICAL SITUATION REPORT

TSR Number	W33	Date of TSR release	9.1.2011	Time of TSR release	6.00pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue current releases however event is increasing in magnitude and may require increased releases.	
Strategy	• Continue the current releases however there may be a need to increase releases above current levels and impact Mt Crosby and Fernvale Bridges.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows may approach 1,000,000ML which is close to outflow in 1999 and two thirds of 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Minimal impact as per previous discussions and releases.

Rainfall

Catchment average rainfall for the past 12 hours is; North Pine Dam (60 mm); Somerset Dam (150 mm); Wivenhoe Dam (80 mm). The bulk of the rain that has fallen in the upper reaches of the Stanley and Brisbane Rivers.

The BOM rainfall forecast for the next few days is:-

Monday:	Very heavy rain periods with totals up to 300mm centred around North Pine.
Tuesday:	Rain periods with totals up to 150mm centred around North Pine.
Wednesday	A few showers less than 10mm
Thursday	A shower or two.
Friday	A shower or two.
Saturday	Mostly fine.

A severe whether warning remains current for heavy rainfall in the dam catchment areas. The dam catchments are relatively saturated and significant inflows will be generated if the forecast rainfall eventuates.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level is currently 39.65 m AHD and rising at 1600. Following the rain in the 9 hours, the number of open gates has been increased from 2 to 5 which are expected to remain open for the next 12 hours. Youngs Crossing will remain closed while releases are in progress.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is 100.75 m AHD and rising quickly. Estimated peak inflow to the dam is about 3,000m3/s. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam will reach at least 101.5 during early Tuesday morning.

Since the commencement of the event on 02/01/2011approximately 80,000ML has been released from the dam, with an event total of at least 320,000ML based on the recorded rainfall to date. The event total is expected to increase significantly due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Wednesday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

The dam level is currently rising again, with the current level being 68.70m AHD. Estimated peak inflow to the dam just from the Upper Brisbane R is about 5,000m3/s and, at this stage, the dam will reach at least 72.5 m AHD during Wednesday morning. River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. The current gate operation strategy will maintain flows of around 1,600m^3/s in the mid-Brisbane River for the next 24 hours. This may mean temporarily reducing releases from Wivenhoe Dam as Lockyer flows increase. However, releases may have to be increased significantly during Monday depending on the rain in the next 12 to 24 hours. The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day).

Since the commencement of the event on 02/01/2011 approximately 210,000ML has been released from the dam, with an event total approaching 1,000,000ML (including Somerset outflow) based on the recorded rainfall to date. The total release for the event is likely to increase over the next few days based on the current rainfall forecasts. At this stage, releases will continue until at least Saturday 15^h January 2011.

Impacts downstream of Wivenhoe Dam

The current Wivenhoe Dam release combined with Lockyer flows and local runoff will mean that all low level crossings downstream of Wivenhoe (Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing) will be adversely impacted until at least Saturday 15 January.

At this stage Fernvale and Mt Crosby Weir Bridge will not be affected for the next 24 hours but there is a strong possibility that, if the predicted rainfall totals eventuate in the next 12 to 24 hours, higher releases from Wivenhoe Dam will be necessary. This may adversely impact upon Fernvale and Mt Crosby Weir Bridges as early as Tuesday morning.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the Wivenhoe operating strategy.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury

Contact Officer position title	Dam Operations Manager

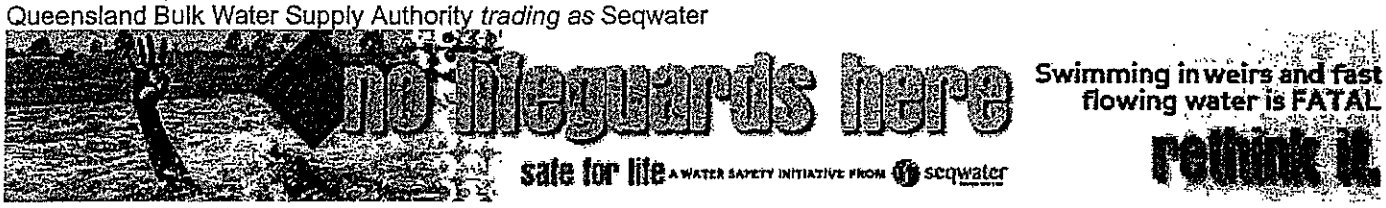
Next TSR due	Date	9.1.2011	Time		or Event	Change in strategy

From: Rob Drury [rdrury[redacted]]
Sent: Sunday, 9 January 2011 6:13 PM
To: Dan Spiller
Subject: RE: Technical Report W31

Will send an update in next hour or so.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Dan Spiller [mailto:Daniel.Spiller[redacted]
Sent: Sunday, 9 January 2011 4:43 PM
To: Rob Drury
Subject: Re: Technical Report W31

Thanks. Appreciate any advice, especially from BCC about city flooding. Anticipate we may get asked soon.

Dan

On 09/01/2011, at 4:28 PM, "Rob Drury" <rdrury[redacted]> wrote:

> Not yet. Duty engineers meeting this afternoon to discuss strategies. Will advise if any change but you are right, we are getting big inflows. Rob
>
> ---
>
> **From:** Dan Spiller <Daniel.Spiller[redacted]>
> **To:** Rob Drury
> **Sent:** Sun Jan 09 16:19:14 2011
> **Subject:** Re: Technical Report W31

1

D108

Rob,

Seems to have been a lot of rain in the catchments, and more heading for Bris Any changes to strategy?

Dan

On 09/01/2011, at 7:50 AM, "Rob Drury" <rdrury[redacted]> wrote:

> Would like to blame the computer system but purely operator error.
>
> Rob

Robert Drury

Dam Operations Manager

Water Delivery

Queensland Bulk Water Supply Authority *trading as* Seqwater

<image001.jpg>

<image002.png>

[redacted] | E rdrury[redacted]

Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306

Website | www.seqwater.com.au

From: Rob Drury
Sent: Sunday, 9 January 2011 7:26 AM
To: Rob Drury; 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; Arminda Roberts
Subject: RE: Technical Report W31

Please find attached Report W31.

Basically continuing releases to maintain 1600 cumecs total flow in the mid Brisbane but watching predicted rainfall as the strategy may change. Fernvale and Mt Crosby bridges still should be unaffected but does depend on what rain we get today or tomorrow.

Rob

Robert Drury

Dam Operations Manager

Water Delivery

Queensland Bulk Water Supply Authority *trading as* Seqwater

<image001.jpg>

<image002.png>

[redacted] | E rdrury[redacted]

Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306

Website | www.seqwater.com.au

From: Rob Drury
Sent: Saturday, 8 January 2011 7:46 AM
To: Rob Drury; 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts
Subject: RE: Technical Report W31

Attached report number W31.

Rob

Robert Drury

Dam Operations Manager

Water Delivery

Queensland Bulk Water Supply Authority *trading as* Seqwater

<image001.jpg>

<image002.png>

[redacted] | E rdrury[redacted]

Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306

Website | www.seqwater.com.au

<Technical Situation Report W32.docx>

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Cindy Hulsey

From: Dan Spiller
Sent: Sunday, 9 January 2011 8:56 PM
To: 'Rob Drury'
Subject: Update

Categories: T8

Rob,

How are you tracking?

We are proposing to have a short teleconference tonight to start planning for impacts and communication. I also need to advise upwards.

Dan

TECHNICAL SITUATION REPORT

TSR Number	W34	Date of TSR release	9.1.2011	Time of TSR release	9.00pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue current releases however event is increasing in magnitude and will require increased releases.	
Strategy	• Continue the current releases until tomorrow noon when re4leases will be increased to impact Mt Crosby and Fernvale Bridges.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows may approach 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Rainfall

Very heavy rainfall has been recorded in the upper reaches of the Brisbane and Stanley in the last 6 hours with totals up 100 to 140mm. Totals for the last 24 hours range from 100 to 300mm.

Rainfall of similar magnitudes is expected in the 12 to 24 hours, especially around the Bremer/Warrill catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is 101.68 m AHD (about 500,000ML currently in storage) and rising quickly. Peak inflow to the dam is estimated to be about 4,000 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam will reach at least 103.5 early Tuesday morning which will adversely impact areas around Kilcoy.

Since the commencement of the event on 02/01/2011approximately 100,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This may increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have already reached 6,700m3/s and the river is still rising.

The dam level is rising again, with the current level being 69.10m AHD (1,410,000ML with about 300,00 of flood storage). Estimated peak inflow to the dam just from the Upper Brisbane R alone may reach as high as 7,500m3/s and, at this stage, the dam will reach at least 73.0 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it will be necessary to increase the release from Wivenhoe Monday morning.

The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, releases will be kept below 3,500m3/s and the combined flows is the lower Brisbane will be limited to 4,000m3/s. This is below the limit of urban damages in the City reaches.

The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day). Gate opening will start to be increased from noon Monday and the release is expected increase to at least 2,600m3/s during Tuesday morning.

Since the commencement of the event on 02/01/2011 approximately 220,000ML has been released from the dam, with an event total approaching 1,000,000ML without further rain and as much as 1,500,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	**Date**	10.1.2011	**Time**		**or Event**	Change in strategy

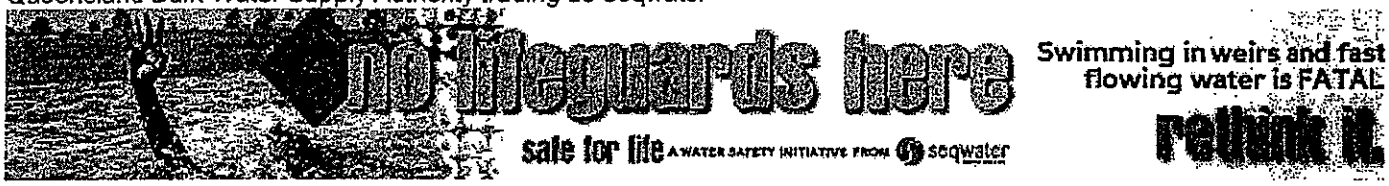
Litsupport Brisbane

From: Rob Drury [rdrury[redacted]
Sent: Sunday, 9 January 2011 9:18 PM
To: Rob Drury; Dan Spiller
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; Arminda Roberts
Subject: RE: Technical Report W34
Attachments: Technical Situation Report W34.docx

See attached report W34.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Sunday, 9 January 2011 7:26 AM
To: Rob Drury; 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; Arminda Roberts
Subject: RE: Technical Report W31

Please find attached Report W31.
Basically continuing releases to maintain 1600 cumecs total flow in the mid Brisbane but watching predicted rainfall as the strategy may change. Fernvale and Mt Crosby bridges still should be unaffected but does depend on what rain we get today or tomorrow.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

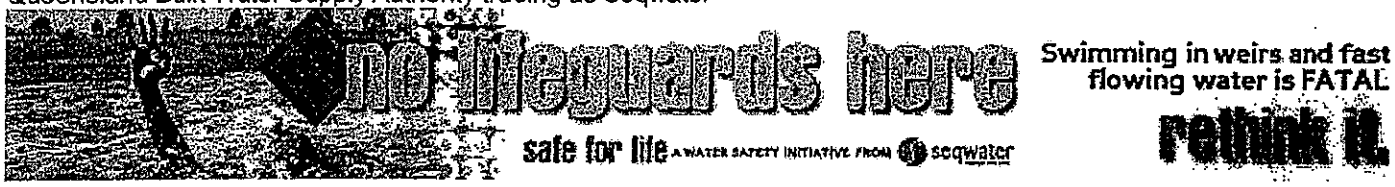
[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Saturday, 8 January 2011 7:46 AM
To: Rob Drury; 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts
Subject: RE: Technical Report W31

Attached report number W31.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W34	Date of TSR release	9.1.2011	Time of TSR release	9.00pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue current releases however event is increasing in magnitude and will require increased releases.	
Strategy	• Continue the current releases until tomorrow noon when re4leases will be increased to impact Mt Crosby and Fernvale Bridges.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows may approach 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Rainfall

Very heavy rainfall has been recorded in the upper reaches of the Brisbane and Stanley in the last 6 hours with totals up 100 to 140mm. Totals for the last 24 hours range from 100 to 300mm.

Rainfall of similar magnitudes is expected in the 12 to 24 hours, especially around the Bremer/Warrill catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is 101.68 m AHD (about 500,000ML currently in storage) and rising quickly. Peak inflow to the dam is estimated to be about 4,000 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam will reach at least 103.5 early Tuesday morning which will adversely impact areas around Kilcoy.

Since the commencement of the event on 02/01/2011approximately 100,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This may increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have already reached 6,700m3/s and the river is still rising.

The dam level is rising again, with the current level being 69.10m AHD (1,410,000ML with about 300,00 of flood storage). Estimated peak inflow to the dam just from the Upper Brisbane R alone may reach as high as 7,500m3/s and, at this stage, the dam will reach at least 73.0 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it will be necessary to increase the release from Wivenhoe Monday morning.

The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, releases will be kept below 3,500m3/s and the combined flows is the lower Brisbane will be limited to 4,000m3/s. This is below the limit of urban damages in the City reaches.

The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day). Gate opening will start to be increased from noon Monday and the release is expected increase to at least 2,600m3/s during Tuesday morning.

Since the commencement of the event on 02/01/2011 approximately 220,000ML has been released from the dam, with an event total approaching 1,000,000ML without further rain and as much as 1,500,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	10.1.2011	Time		or Event	Change in strategy

Litsupport Brisbane

From: Dan Spiller
Sent: Sunday, 9 January 2011 9:27 PM
To: 'Rob Drury'; Barry Dennien; Michael Lyons; SEQWGM Media; Debbie Best (debbie.best[redacted]); Scott Denner; pbird[redacted]; 'sstevenson[redacted]
Subject: FW: Technical Report W34
Attachments: Technical Situation Report W34.docx

Technical report below.

Teleconference at 9.30.

Details are:

Phone: [redacted]
PIN: [redacted]

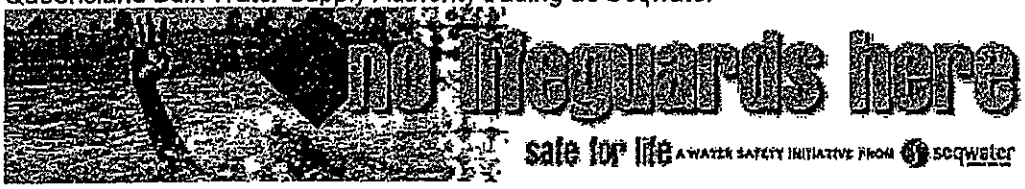
Regards,
Dan

From: Rob Drury [mailto:rdrury[redacted]]
Sent: Sunday, January 09, 2011 9:18 PM
To: Rob Drury; Dan Spiller
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; Arminda Roberts
Subject: RE: Technical Report W34

See attached report W34.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Sunday, 9 January 2011 7:26 AM
To: Rob Drury; 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; Arminda Roberts
Subject: RE: Technical Report W31

Please find attached Report W31.
Basically continuing releases to maintain 1600 cumecs total flow in the mid Brisbane but watching predicted rainfall as the strategy may change. Fernvale and Mt Crosby bridges still should be unaffected but does depend on what rain we get today or tomorrow.

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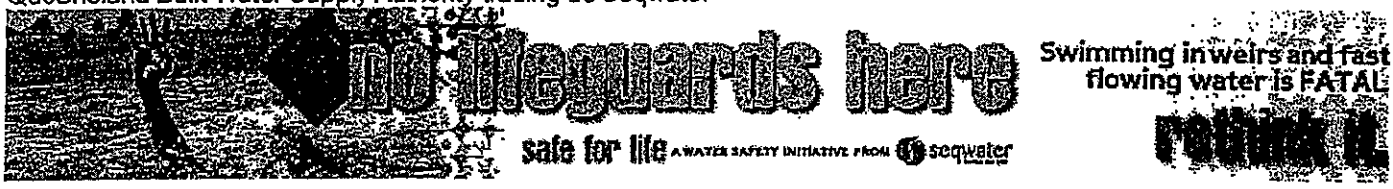
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



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PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Saturday, 8 January 2011 7:46 AM
To: Rob Drury; 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts
Subject: RE: Technical Report W31

Attached report number W31.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W34	Date of TSR release	9.1.2011	Time of TSR release	9.00pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue current releases however event is increasing in magnitude and will require increased releases.	
Strategy	• Continue the current releases until tomorrow noon when re4leases will be increased to impact Mt Crosby and Fernvale Bridges.	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows may approach 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Rainfall

Very heavy rainfall has been recorded in the upper reaches of the Brisbane and Stanley in the last 6 hours with totals up 100 to 140mm. Totals for the last 24 hours range from 100 to 300mm.

Rainfall of similar magnitudes is expected in the 12 to 24 hours, especially around the Bremer/Warrill catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is 101.68 m AHD (about 500,000ML currently in storage) and rising quickly. Peak inflow to the dam is estimated to be about 4,000 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam will reach at least 103.5 early Tuesday morning which will adversely impact areas around Kilcoy.

Since the commencement of the event on 02/01/2011approximately 100,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This may increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have already reached 6,700m3/s and the river is still rising.

The dam level is rising again, with the current level being 69.10m AHD (1,410,000ML with about 300,00 of flood storage). Estimated peak inflow to the dam just from the Upper Brisbane R alone may reach as high as 7,500m3/s and, at this stage, the dam will reach at least 73.0 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it will be necessary to increase the release from Wivenhoe Monday morning.

The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, releases will be kept below 3,500m3/s and the combined flows is the lower Brisbane will be limited to 4,000m3/s. This is below the limit of urban damages in the City reaches.

The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day). Gate opening will start to be increased from noon Monday and the release is expected increase to at least 2,600m3/s during Tuesday morning.

Since the commencement of the event on 02/01/2011 approximately 220,000ML has been released from the dam, with an event total approaching 1,000,000ML without further rain and as much as 1,500,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

D129

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	10.1.2011	Time		or Event	Change in strategy

D130

Litsupport Brisbane

From: Dan Spiller
Sent: Sunday, 9 January 2011 11:07 PM
To: stephen.robertson[redacted]; Ken Smith (ken.smith[redacted]); Lance McCallum (lance.mccallum[redacted]); Tim Watts (tim.watts[redacted]); Geoff Stead (geoff.stead[redacted]); lauren.sims[redacted]; Debbie Best (debbie.best[redacted]; Martin.PeterJ[redacted]; Dunn.KerryG[redacted]
Cc: 'Rob Drury'; pbird[redacted]; 'sstevenson[redacted]; SEQWGM Media; Scott Denner; Madgwick.DarrenT[redacted]; Damien Brown (damien.brown[redacted]); bob.reilly[redacted]
Subject: Updated Wivenhoe Dam release strategy
Attachments: Technical Situation Report W34.docx

All,

Latest advice from the Flood Control Centre attached.

There has been 100 to 300mm of rainfall in the Wivenhoe and Somerset dam catchments over the past 24 hours.
Rainfall of similar magnitudes is expected over the next 12 to 24 hours.

At this time, including forecast rainfall, total inflows will exceed 1,000,000 ML and may approach 1,500,000 ML - in the order of the 1974 flood volume.

To date, the primary objective for this event has been managing to prevent inundation of the Mt Crosby Weir and Fernvale Bridges.

With the forecast volumes, this primary objective is being changed to minimizing the risk of urban inundation. This involves larger releases now, minimizing the risk of even larger releases later (were the flood compartment to reach high levels).

Urban inundation in the City reaches generally commences at total river flows of about 3,500 cubic metres per second (dam releases plus Lockyer and Bremer). At this time, and depending upon overnight rainfall, the Flood Control Centre is proposing to increase releases from around 1,200 to 2,500 cubic metres per second from midday tomorrow. This provides an allowance for other flows.

The Mt Crosby Weir and Fernvale bridges will certainly be inundated - isolating or inconveniencing many Brisbane Valley residents. The timing will depend largely on local flows, with the river having recently increased to be about one foot below the deck. Seqwater is preparing the bridge to be inundated, and may need to close it tonight. However, other flows permitting, we will delay inundating the bridge until tomorrow night - providing notice for impacted residents.

Actions to date:

- Notified Councils (up to the CEO level at BCC)
- Notified Police (Assistant Commissioner)
- Increasing treated water storage and preparing treatment plants, should there again be increased turbidity levels or other operational issues.

A media advice is being prepared now, for review and issue by 7am. The advice will address the closure of the bridges, with the intent of providing as much notice as possible to impacted residents (if not already closed). Impacts on the City reaches will be addressed following further consultation with Council (with there being a 20+ hour transit time).

It is important to note that the dams are managing impacts by delaying and reducing releases. For comparison, peak flows into the dam are forecast to reach up to 7,500 cubic metres per second - excluding any downstream flows.

Please call me on [redacted] if you require any further information.

Regards,
Daniel Spiller

TECHNICAL SITUATION REPORT

TSR Number	W34	Date of TSR release	9.1.2011	Time of TSR release	9.00pm

Seqwater status of inflows and dam operations

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River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have already reached 6,700m3/s and the river is still rising.

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Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
0410378740	[redacted]

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(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

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BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

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(to include predicted local inundation areas and depths of inundation based on the information)

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BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

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ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
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SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	10.1.2011	Time		or Event	Change in strategy

D138

From: Dan Spiller [Daniel.Spiller[redacted]
Sent: Sunday, 9 January 2011 11:23 PM
To: 'ceo[redacted]
Cc: Barry Dennien; 'Debbie Best (debbie.best[redacted]
Subject: Wivenhoe Dam operations update

Colin,

Further to our conversation, our latest advice is as follows.

There has been 100 to 300mm of rainfall in the Wivenhoe and Somerset dam catchments over the past 24 hours. Rainfall of similar magnitudes is expected over the next 12 to 24 hours. Total inflows will exceed 1,000,000 ML, based on rainfall to date.

To date, the primary objective for this event has been managing to prevent inundation of the Mt Crosby Weir and Fernvale Bridges.

With the forecast volumes, this primary objective is being changed to minimizing the risk of urban inundation. This involves larger releases now, minimizing the risk of even larger releases later (were the flood compartment to reach high levels).

Urban inundation in the City reaches generally commences at total river flows of about 3,500 cubic metres per second (dam releases plus Lockyer and Bremer). At this time, and depending upon overnight rainfall, the Flood Control Centre is proposing to increase releases from around 1,200 to 2,500 cubic metres per second from midday tomorrow. This provides an allowance for other flows.

The Mt Crosby Weir and Fernvale bridges will certainly be inundated - isolating or inconveniencing many Brisbane Valley residents. The timing will depend largely on local flows, with the river having recently increased to be about one foot below the deck. Seqwater is preparing the bridge to be inundated, and may need to close it tonight. However, other flows permitting, we will delay inundating the bridge until tomorrow night - providing notice for impacted residents.

We propose to issue a media advice about the increases and potential impact on bridges early tomorrow morning (about 7am). A draft is below. I would appreciate any comments, but understand time is limited. We will finalize it before issue, based on the status of the Weir Bridge at that time. Obviously, it is irrelevant if other flows result in closure before releases are increased.

The advice does not address urban impacts at this time. We would prefer to review the situation in the morning and consult with Councils before finalising the strategy. This includes reviewing where the rainfall occurs.

As you know, the dams are managing impacts by delaying and reducing releases. For comparison, peak flows into the dam are forecast to reach up to 7,500 cubic metres per second - excluding any downstream flows.

I will speak to you tomorrow. In the meantime, please call me on [redacted] if you require any further information.

Regards,
Daniel Spiller

Media update – 10 January 2011

Wivenhoe Dam releases

Significant rainfall received across the catchment has pushed Wivenhoe Dam's capacity to approximately _%. In order to relieve the dam's flood storage compartment, controlled releases will be increased today, utilising a strategy designed to minimise impacts downstream.

Increased releases, combined with other flows, are expected to result in the closure of the Fernvale Bridge and Mt Crosby Weir Bridge. This could occur this morning, but will be delayed until tonight if possible.

A number of other bridges have already been impacted, including Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge and Colleges Crossing.

Residents are urged to contact local councils for detailed information on road crossing closures and other impacts.

Telephone - 1800 613 122 has been established for members of the public seeking information on which dams are spilling in South East Queensland.

ENDS

Suzie Emery

From: Dan Spiller
Sent: Monday, 10 January 2011 12:04 AM
To: Barry Dennien; Best Debbie; Michael Lyons; SEQWGM Media; Geoff Stead
Subject: Mt Crosby going under now. Need a new release

Cindy Hulsey

From: Colin Jensen [CEO[redacted]]
Sent: Monday, 10 January 2011 12:15 AM
To: Dan Spiller
Cc: Chris Lavin; Michael Bell
Subject: Re: Wivenhoe Dam operations update

Categories: T8

Thanks Dan

CC Chris and Michael - for your consideration

The BMTMC has advised that about ten minutes ago, the Mt Crosby Weir has now closed. Not sure how this equates - must be stream flows are greater than otherwise being figured on. Accordingly, the media release should be further worked on in the morning.

Thanks

Colin Jensen
Chief Executive Officer
Brisbane City Council
GPO Box 1434 | Brisbane Qld 4001
Level 23, Brisbane Square | 266 George Street, Brisbane, Qld 4000
Phone:[redacted] | Fax:[redacted]
Email: colin.jensen[redacted]
>>> Dan Spiller <Daniel.Spiller[redacted]> 09/01/11 11:22 PM >>>
Colin,

Further to our conversation, our latest advice is as follows.

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Media update - 10 January 2011
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Telephone - 1800 613 122 has been established for members of the public seeking information on which dams are spilling in South East Queensland.

ENDS

****
This message has passed through an insecure network.
Please direct all enquiries to the message author.
****

Litsupport Brisbane

From: Rob Drury [rdrury[redacted]]
Sent: Monday, 10 January 2011 1:28 AM
To: Dan Spiller; Barry Dennien; Michael Lyons; SEQWGM Media; debbie.best[redacted]; Scott Denner; Paul Bird; Stan Stevenson; Peter Borrows; Peter.Allen[redacted]
Subject: Re: Technical Report W34

Since earlier discussions, further rain and local flooding have closed Mt Crosby and Fernvale bridges. Releases will now be ramped up overnight rather than tomorrow since these bridges are now closed and due to increasing inflows. Councils have been notified and are on site. Media messages in morning need to be adjusted accordingly. Rob

---

From: Dan Spiller <Daniel.Spiller[redacted]>
To: Rob Drury; Barry Dennien <Barry.Dennien[redacted]>; Michael Lyons <Michael.Lyons[redacted]>; SEQWGM Media <media[redacted]>; Debbie Best (debbie.best[redacted] <debbie.best[redacted]>; Scott Denner <Scott.Denner[redacted]>; Paul Bird; Stan Stevenson
Sent: Sun Jan 09 21:27:23 2011
Subject: FW: Technical Report W34

Technical report below.

Teleconference at 9.30.

Details are:

[redacted]

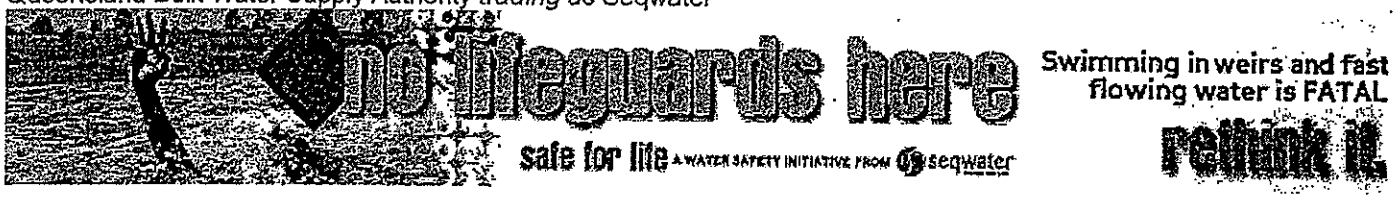
Regards,
Dan

From: Rob Drury [mailto:rdrury[redacted]]
Sent: Sunday, January 09, 2011 9:18 PM
To: Rob Drury; Dan Spiller
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; Arminda Roberts
Subject: RE: Technical Report W34

See attached report W34.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Sunday, 9 January 2011 7:26 AM
To: Rob Drury; 'Dan Spiller'
Cc: Peter Borrows; Stan Stevenson; Mike Foster; Paul Bird; David Roberts; Arminda Roberts
Subject: RE: Technical Report W31

Please find attached Report W31.
Basically continuing releases to maintain 1600 cumecs total flow in the mid Brisbane but watching predicted rainfall as the strategy may change. Fernvale and Mt Crosby bridges still should be unaffected but does depend on what rain we get today or tomorrow.

Rob

Robert Drury
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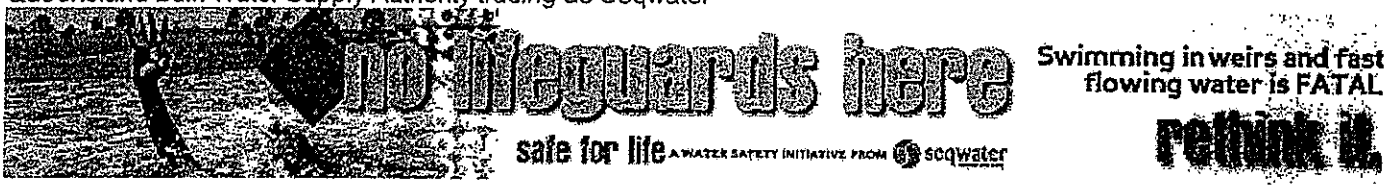

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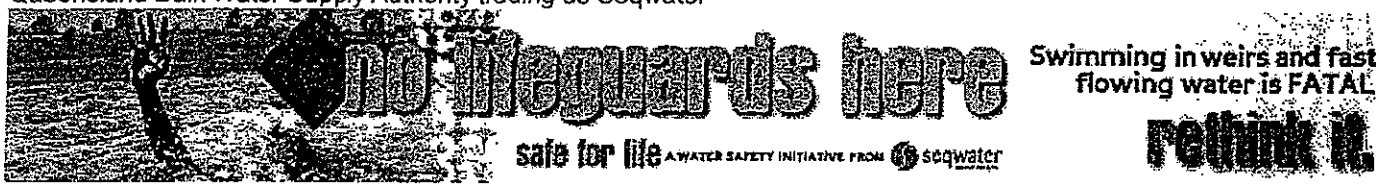
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

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Litsupport Brisbane

From: Dan Spiller
Sent: Monday, 10 January 2011 5:31 AM
To: Dan Spiller; 'stephen.robertson[redacted]'; 'Ken Smith (ken.smith[redacted])'; 'Lance McCallum (lance.mccallum[redacted])'; 'Tim Watts (tim.watts[redacted])'; 'Geoff Stead (geoff.stead[redacted])'; 'lauren.sims[redacted]'; 'Debbie Best (debbie.best[redacted])'; 'Martin.PeterJ[redacted]' 'Dunn.KerryG[redacted]
Cc: 'Rob Drury'; 'pbird[redacted]'; 'sstevenson[redacted]'; SEQWGM Media; Scott Denner; 'Madgwick.DarrenT[redacted]'; 'Damien Brown (damien.brown[redacted])'; 'bob.reilly[redacted]
Subject: RE: Updated Wivenhoe Dam release strategy

The Mt Crosby Weir and Fernvale Bridges were both inundated by other flows last night. Councils were advised and are on site.

Dam releases began to be increased overnight, brought forward because the bridges were already and with increasing inflows to storages.

We are preparing communications and technical information.

Regards,
Dan

From: Dan Spiller
Sent: Sunday, January 09, 2011 11:07 PM
To: stephen.robertson[redacted]; Ken Smith (ken.smith[redacted]); Lance McCallum (lance.mccallum[redacted]); Tim Watts (tim.watts[redacted]); Geoff Stead (geoff.stead[redacted]); lauren.sims[redacted]; Debbie Best (debbie.best[redacted]); Martin.PeterJ[redacted]; Dunn.KerryG[redacted]
Cc: 'Rob Drury'; pbird[redacted]; 'sstevenson[redacted]'; SEQWGM Media; Scott Denner; Madgwick.DarrenT[redacted]; Damien Brown (damien.brown[redacted]); bob.reilly[redacted]
Subject: Updated Wivenhoe Dam release strategy

All,

atest advice from the Flood Control Centre attached.

There has been 100 to 300mm of rainfall in the Wivenhoe and Somerset dam catchments over the past 24 hours. Rainfall of similar magnitudes is expected over the next 12 to 24 hours.

At this time, including forecast rainfall, total inflows will exceed 1,000,000 ML and may approach 1,500,000 ML - in the order of the 1974 flood volume.

To date, the primary objective for this event has been managing to prevent inundation of the Mt Crosby Weir and Fernvale Bridges.

With the forecast volumes, this primary objective is being changed to minimizing the risk of urban inundation. This involves larger releases now, minimizing the risk of even larger releases later (were the flood compartment to reach high levels).

Urban inundation in the City reaches generally commences at total river flows of about 3,500 cubic metres per second (dam releases plus Lockyer and Bremer). At this time, and depending upon overnight rainfall, the Flood Control Centre is proposing to increase releases from around 1,200 to 2,500 cubic metres per second from midday tomorrow. This provides an allowance for other flows.

The Mt Crosby Weir and Fernvale bridges will certainly be inundated - isolating or inconveniencing many Brisbane Valley residents. The timing will depend largely on local flows, with the river having recently increased to be about one foot below the deck. Seqwater is preparing the bridge to be inundated, and may need to close it tonight. However, other flows permitting, we will delay inundating the bridge until tomorrow night - providing notice for impacted residents.

Actions to date:

- Notified Councils (up to the CEO level at BCC)
- Notified Police (Assistant Commissioner)
- Increasing treated water storage and preparing treatment plants, should there again be increased turbidity levels or other operational issues.

A media advice is being prepared now, for review and issue by 7am. The advice will address the closure of the bridges, with the intent of providing as much notice as possible to impacted residents (if not already closed). Impacts on the City reaches will be addressed following further consultation with Council (with there being a 20+ hour transit time).

It is important to note that the dams are managing impacts by delaying and reducing releases. For comparison, peak flows into the dam are forecast to reach up to 7,500 cubic metres per second - excluding any downstream flows.

Please call me on [redacted] if you require any further information.

Regards,
Daniel Spiller

Gina O'Driscoll

From: Rob Drury [rdrury[redacted]]
Sent: Monday, 10 January 2011 6:14 AM
To: Dan Spiller; Barry Dennien
Cc: Paul Bird; Peter Borrows; David Roberts
Subject: FW: FOC Situation Report at 01:00 hrs on Monday 10 January 2011
Attachments: image001.jpg; image002.png

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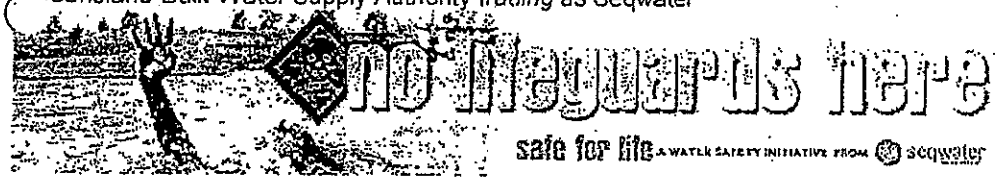

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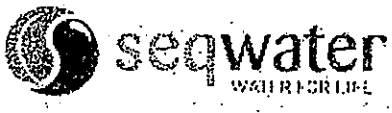

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A severe weather warning remains current for heavy rainfall in the dam catchment areas.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level was 39.95 m and steady. Five gates are open releasing 445 m3/s. The inflow into the dam since the commencement of the event is 42,000 ML. Estimated event volume is 57,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011.

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Since the commencement of the event on 02/01/2011approximately 115,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This is expected to increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have already reached 7,350m3/s and the river has just peaked at 13:00 on Sunday 9 January.

The dam level is rising quickly, with the current level being 69.60m AHD (storing 301,000 ML). Estimated peak inflow to the dam just from the Upper Brisbane R alone may reach as high as 8,800m3/s and, at this stage, the dam will reach at least 73.3 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it will be necessary to increase the release from Wivenhoe during Monday morning.

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Since the commencement of the event on 02/01/2011 approximately 240,000ML has been released from the dam, with an event total approaching 1,500,000ML without further rain and as much as 2,100,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

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Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Regards

John Ruffini

Duty Engineer
Flood Operations Centre

[redacted]

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To: Michael Lyons
Cc: Dan Spiller
Subject: FW: FOC Situation Report at 01:00 hrs on Monday 10 January 2011

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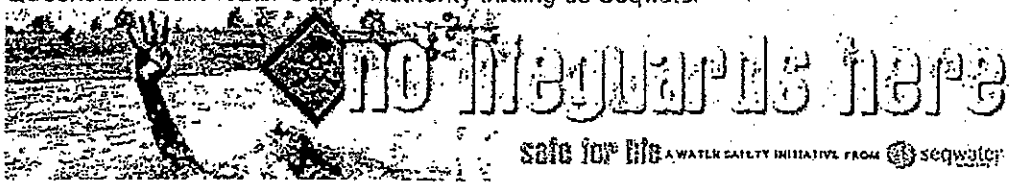

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WATER FOR LIFE

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Sent: Monday, January 10, 2011 6:20 AM
To: Paul Bird <pbird[redacted]>; Dan Spiller <Daniel.Spiller[redacted]>; Barry Dennien <Barry.Dennien[redacted]>
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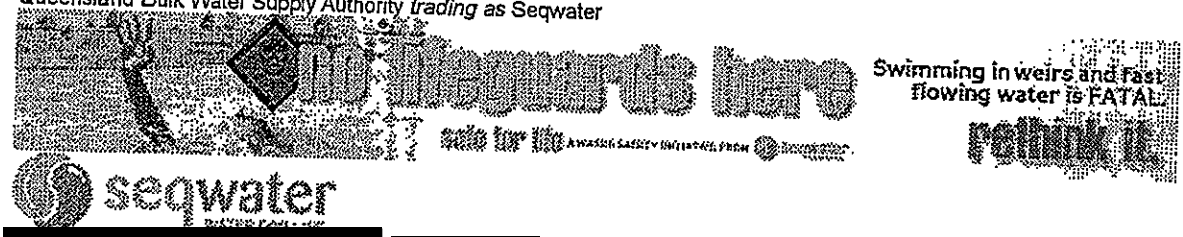

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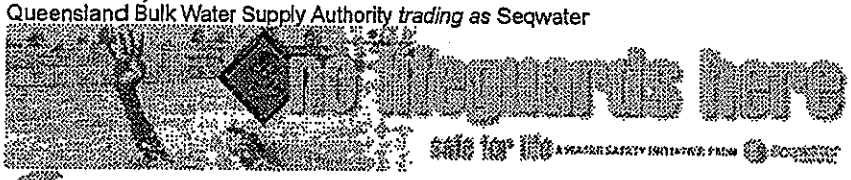

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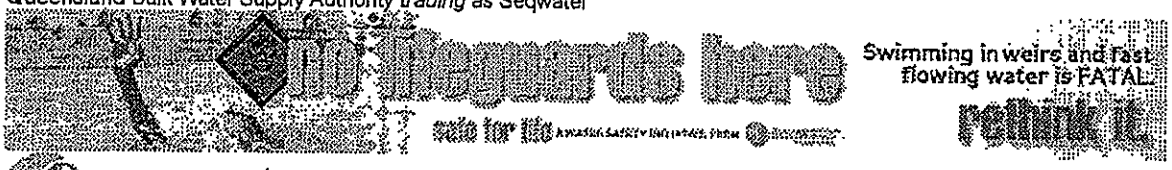

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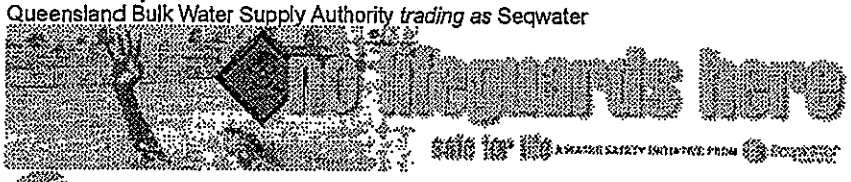

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Subject: FOC Situation Report at 01:00 hrs on Monday 10 January 2011

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Very heavy rainfall has been recorded in the Upper Brisbane and Stanley Rivers in the last 12 hours with totals up 100 to 240mm. Totals for the last 24 hours range from 100 to 300mm.

Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level was 39.95 m and steady. Five gates are open releasing 445 m3/s. The inflow into the dam since the commencement of the event is 42,000 ML. Estimated event volume is 57,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is 102.22 m AHD and rising quickly (storing 157,000 ML above FSL). Peak inflow to the dam is estimated to be about 4,200 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam will reach at least 103.5 on Monday afternoon which will adversely impact areas around Kilcoy.

Since the commencement of the event on 02/01/2011approximately 115,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This is expected to increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have already reached 7,350m3/s and the river has just peaked at 23:00 on Sunday 9 January.

The dam level is rising quickly, with the current level being 69.60m AHD (storing 301,000 ML). Estimated peak inflow to the dam just from the Upper Brisbane R alone may reach as high as 8,800m3/s and, at this stage, the dam will reach at least 73.3 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it will be necessary to increase the

release from Wivenhoe during Monday morning.

The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, releases will be kept below 3,500m3/s and the combined flows in the lower Brisbane will be limited to 4,000m3/s if possible.

Fernvale Bridge approaches and Mt Crosby Weir Bridge have been inundated and both bridges are now closed or are in the process of being closed.

The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day). Gate opening will start to be increased during early Monday morning and the release is expected to increase to at least 2,600m3/s.

Since the commencement of the event on 02/01/2011 approximately 240,000ML has been released from the dam, with an event total approaching 1,500,000ML without further rain and as much as 2,100,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam. If the predicted rainfall eventuates in the downstream tributary catchments the resultant combined flows in the lower Brisbane may exceed the threshold of damaging discharge in the urban areas within the next 24 to 48 hours.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Regards

John Ruffini

Duty Engineer
Flood Operations Centre

[redacted]

Important information: This email and any attached information is intended only for the addressee and may contain confidential and/or privileged information. If you are not the addressee, you are notified that any transmission, distribution, or other use of this information is strictly prohibited. The confidentiality attached to this email is not waived, lost or destroyed by reasons of mistaken delivery to you. If you have received this email in error please contact the sender immediately and delete the material from your email system. QLD Bulk Water Supply Authority ABN75450239876 (Trading as Seqwater).

From: Dan Spiller <Daniel.Spiller[redacted]>
Sent: Monday, January 10, 2011 6:21 AM
To: SEQWGM Media <media[redacted]>; Barry Dennien <Barry.Dennien[redacted]>
Subject: Fwd: FOC Situation Report at 01:00 hrs on Monday 10 January 2011
Attach: Seqwater_No-Lifeguards-Here_email_strap.png; ATT00001.htm; cidimage001.png@01CA24E1.BDB90020; ATT00002.htm

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Begin forwarded message:

From: Rob Drury <rdrury[redacted]>
Date: 10 January 2011 6:14:16 AM GMT+10:00
To: Dan Spiller <Daniel.Spiller[redacted]>, Barry Dennien <Barry.Dennien[redacted]>
Cc: Paul Bird <pbird[redacted]>, Peter Borrows <pborrows[redacted]>, David Roberts <droberts[redacted]>
Subject: FW: FOC Situation Report at 01:00 hrs on Monday 10 January 2011

See below FOC report as at 1am.

Will send a technical report in hour or so when I get an update off the FOC.

As at 6am this morning the levels are

Wivenhoe now 70.77m and 140.9% holding 1,641,685ML or 480,000Ml above FSL.

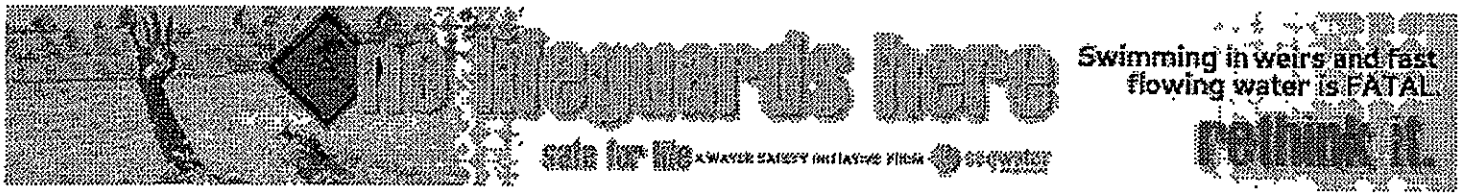
Somerset 150.9% and holding 573,067ML or 193,000ML above FSL.

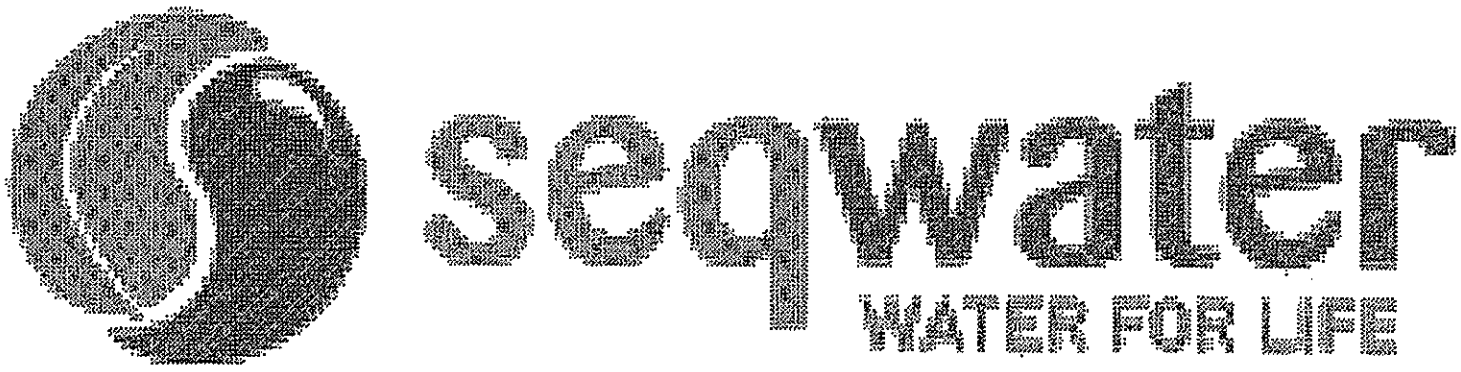
Robert Drury

Dam Operations Manager

Water Delivery

Queensland Bulk Water Supply Authority *trading as* Seqwater


Swimming in weirs and fast flowing water is FATAL.


seqwater
WATER FOR LIFE

[redacted] E rdrury[redacted]

Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306

Website | www.seqwater.com.au

From: Duty Engineer [mailto:dutysec[redacted]
Sent: Monday, 10 January 2011 1:14 AM
To: David Roberts; flood.qld[redacted]; Mike Foster; Paul Bird; Peter Allen; Rob Drury; Rohan Thorogood; Ken.Price[redacted]; kim.hang[redacted]; Al Navaruk; Bill Stephens; David Pokarier; John West; Louw Van Blerk; Mark Tan; Neville Ablitt; John.Ruffini[redacted]; John Tibaldi; Rob.ayre[redacted]; Terry Malone; Brett Schultz; Glenn Patterson; Malcolm Lane; Murray Dunstan; Rob Gorian; Agg Dagan; Doug Grigg; Graham Keegan; Graham Francis; Jayam Tennakoon; Matthew O'Reilly
Cc: Andy Bickerton; Deb Chandler; Mailbox; Chris Lavin; Craig Logan; Don Carroll; Evan Caswell; James Charalambous; Ken Morris; Robert McGlinn; Santina Pennisi; Tony Trace
Subject: FOC Situation Report at 01:00 hrs on Monday 10 January 2011

Rainfall

Very heavy rainfall has been recorded in the Upper Brisbane and Stanley Rivers in the last 12 hours with totals up 100 to 240mm. Totals for the last 24 hours range from 100 to 300mm.

Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level was 39.95 m and steady. Five gates are open releasing 445 m3/s. The inflow into the dam since the commencement of the event is 42,000 ML. Estimated event volume is 57,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is 102.22 m AHD and rising quickly (storing 157,000 ML above FSL). Peak inflow to the dam is estimated to be about 4,200 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam will reach at least 103.5 on Monday afternoon which will adversely impact areas around Kilcoy.

Since the commencement of the event on 02/01/2011approximately 115,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This is expected to increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregorâ€™s Ck have already reached 7,350m3/s and the river has just peaked at 23:00 on Sunday 9 January.

The dam level is rising quickly, with the current level being 69.60m AHD (storing 301,000 ML). Estimated peak inflow to the dam just from the Upper Brisbane R alone may reach as high as 8,800m3/s and, at this stage, the dam will reach at least 73.3 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it will be necessary to increase the release from Wivenhoe during Monday morning.

The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, releases will be kept below 3,500m3/s and the combined flows in the lower Brisbane will be limited to 4,000m3/s if possible.

Fernvale Bridge approaches and Mt Crosby Weir Bridge have been inundated and both bridges are now closed or are in the process of being closed.

The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day). Gate opening will start to be increased during early Monday morning and the release is expected to increase to at least 2,600m3/s.

Since the commencement of the event on 02/01/2011 approximately 240,000ML has been released from the dam, with an event total approaching 1,500,000ML without further rain and as much as 2,100,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam. If the predicted rainfall eventuates in the downstream tributary catchments the resultant combined flows in the lower Brisbane may exceed the threshold of damaging discharge in the urban areas within the next 24 to 48 hours.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Regards

John Ruffini

Duty Engineer

Flood Operations Centre

[redacted]

Important information: This email and any attached information is intended only for the addressee and may contain confidential and/or privileged information. If you are not the addressee, you are notified that any transmission, distribution, or other use of this information is strictly prohibited. The confidentiality attached to this email is not waived, lost or destroyed by reasons of mistaken delivery to you. If you have received this email in error please contact the sender immediately and delete the material from your email system. QLD Bulk Water Supply Authority ABN75450239876 (Trading as Seqwater).

Cindy Hulsey

From: Rob Drury [rdrury[redacted]]
Sent: Monday, 10 January 2011 6:36 AM
To: Paul Bird; Dan Spiller

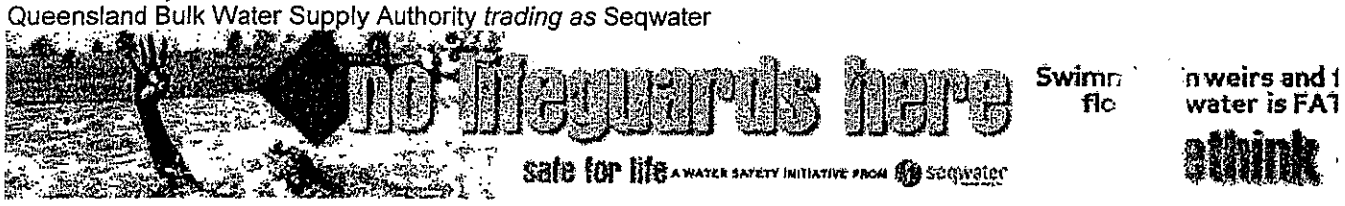
Categories: T8

Two things

- Current release rate is 1,753m3/s (150,000ML/day) but ramping up
- Our Flood Centre has been keeping BCC flood centre informed which BCC mobilised. The c[illegible]ssue so far is that our manual has the threshold of damage to urban areas as around 4,000cumecs in th[illegible]er Brisbane River, they advised they think it is more like 3,500cumecs. We are aiming for the 4,000cu[illegible]as per the approved manual so It would be good if we could still get a consolidated message out thro[illegible]all parties. Maybe advising flows of 3,500 to 4,000 cumecs which may cause some minor impacts down[illegible]ream, of course this also depends on further rainfall in local areas. Of course if we need to go higher[illegible]n the message would change.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
O Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W35	Date of TSR release	10.1.2011	Time of TSR release	7am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge flood waters but keep impact downstream to minimum.	
Strategy	• All bridges are now inundated . • Aiming to release 3,500cumecs to keep flow in lower Brisbane River around 4,000cumecs	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows expected around 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows.
	Brisbane River:	Impact as below.

Rainfall

Moderate to heavy rainfall has been recorded in the Upper Brisbane and Stanley Rivers in the last 12 hours with totals up to 90 mm. Totals for the last 24 hours range from 100 to 325mm.

Mt Glorious recorded 100 mm in the last 12 hours.

Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level was 39.97 m and steady. Five gates are open releasing 475 m3/s. The inflow into the dam since the commencement of the event is 52,000 ML. Estimated event volume is 72,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level at 05:00 was 102.84 m AHD and rising (storing 193,000 ML above FSL). Peak inflow to the dam is estimated to be about 4,200 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam lake level will reach about 103.5 mAHD on Monday afternoon. Areas around Kilcoy will continue to be adversely affected.

Since the commencement of the event on 02/01/2011 approximately 142,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This is expected to increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam have peaked and are falling slowly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have peaked at 7,350m3/s at 23:00 on Sunday 9 January. This peak is bigger than January 1974 and February 1999 at this location.

The dam level is rising quickly, with the current level being 70.77m AHD (storing 450,000 ML). Estimated peak inflow to the dam just from the Upper Brisbane R is around 8,800m3/s and, at this stage, the dam will reach at least 73.3 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it was necessary to start to increase the release from Wivenhoe during Monday morning.

The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, releases will be kept below 3,500m3/s and the combined flows in the lower Brisbane will be limited to 4,000m3/s if possible. This is significantly less than the current estimated combined pre-dam peak inflow of 12,000 m3/s.

Fernvale Bridge approaches and Mt Crosby Weir Bridge have been inundated and both bridges are now closed.

The current release rate from Wivenhoe Dam is 1,753m3/s (150,000ML/day). Gate opening will continue to be increased during Monday and the release is expected to increase to at least 2,600m3/s in the next 12 to 24 hours.

Since the commencement of the event on 02/01/2011 approximately 275,000ML has been released from the dam, with an event total approaching 1,600,000ML without further rain and as much as 2,100,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam. If the predicted rainfall eventuates in the downstream tributary catchments the resultant combined flows in the lower Brisbane may exceed the threshold of damaging discharge in the urban areas within the next 24 to 48 hours. Currently the estimate peak flow in the lower Brisbane River will be the highest since Wivenhoe Dam was completed in 1984 but still well below flows the 1974 levels.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Outlook

Heavy rainfall continues throughout South East Queensland and the situation could deteriorate rapidly over the next 24 hours. The flood operation centre will continue to monitor the situation and provide every six hours until the situation stabilizes.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
[redacted]	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs

SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

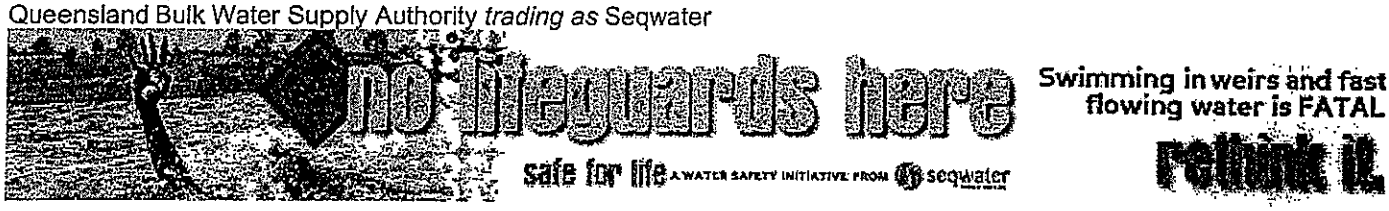
Litsupport Brisbane

From: Rob Drury [rdrury[redacted]
Sent: Monday, 10 January 2011 7:53 AM
To: Rob Drury; Dan Spiller; Barry Dennien; Michael Lyons; SEQWGM Media; debbie.bes[redacted]; Scott Denner; Paul Bird; Stan Stevenson; Peter Borrows; Peter.Allen[redacted]
Subject: RE: Technical Report W35
Attachments: Technical Situation Report W35.docx

Attached report W35.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W35	Date of TSR release	10.1.2011	Time of TSR release	7am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge flood waters but keep impact downstream to minimum.	
Strategy	• All bridges are now inundated .	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows expected around 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Rainfall

Very heavy rainfall has been recorded in the upper reaches of the Brisbane and Stanley in the last 6 hours with totals up 100 to 140mm. Totals for the last 24 hours range from 100 to 300mm.

Rainfall of similar magnitudes is expected in the 12 to 24 hours, especially around the Bremer/Warrill catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is 101.68 m AHD (about 500,000ML currently in storage) and rising quickly. Peak inflow to the dam is estimated to be about 4,000 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam will reach at least 103.5 early Tuesday morning which will adversely impact areas around Kilcoy.

Since the commencement of the event on 02/01/2011approximately 100,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This may increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam are rising quickly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have already reached 6,700m3/s and the river is still rising.

The dam level is rising again, with the current level being 69.10m AHD (1,410,000ML with about 300,00 of flood storage). Estimated peak inflow to the dam just from the Upper Brisbane R alone may reach as high as 7,500m3/s and, at this stage, the dam will reach at least 73.0 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it will be necessary to increase the release from Wivenhoe Monday morning.

The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, releases will be kept below 3,500m3/s and the combined flows is the lower Brisbane will be limited to 4,000m3/s. This is below the limit of urban damages in the City reaches.

The current release rate from Wivenhoe Dam is 1,400m3/s (120,000ML/day). Gate opening will start to be increased from noon Monday and the release is expected increase to at least 2,600m3/s during Tuesday morning.

Since the commencement of the event on 02/01/2011 approximately 220,000ML has been released from the dam, with an event total approaching 1,000,000ML without further rain and as much as 1,500,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	**Date**	11.1.2011	**Time**		**or Event**	Change in strategy

D186

TECHNICAL SITUATION REPORT

TSR Number	W36	Date of TSR release	10.1.2011	Time of TSR release	8am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge flood waters but keep impact downstream to minimum.	
Strategy	• All bridges are now inundated .	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows expected around 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Rainfall

Moderate to heavy rainfall has been recorded in the Upper Brisbane and Stanley Rivers in the last 12 hours with totals up to 90 mm. Totals for the last 24 hours range from 100 to 325mm.

Mt Glorious recorded 100 mm in the last 12 hours.

Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level was 39.97 m and steady. Five gates are open releasing 475 m3/s. The inflow into the dam since the commencement of the event is 52,000 ML. Estimated event volume is 72,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level at 05:00 was 102.84 m AHD and rising (storing 193,000 ML above FSL). Peak inflow to the dam is estimated to be about 4,200 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam lake level will reach about 103.5 mAHD on Monday afternoon. Areas around Kilcoy will continue to be adversely affected.

Since the commencement of the event on 02/01/2011approximately 142,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This is expected to increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam have peaked and are falling slowly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have peaked at 7,350m3/s at 23:00 on Sunday 9 January. This peak is bigger than January 1974 and February 1999 at this location.

The dam level is rising quickly, with the current level being 70.77m AHD (storing 450,000 ML). Estimated peak inflow to the dam just from the Upper Brisbane R is around 8,800m3/s and, at this stage, the dam will reach at least 73.3 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it was necessary to start to increase the release from Wivenhoe during Monday morning.

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Seqwater Technical Officer name	Robert Drury

Seqwater Technical Officer position title	Dam Operations Manager
[redacted]	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

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ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

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SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator

SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency).

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

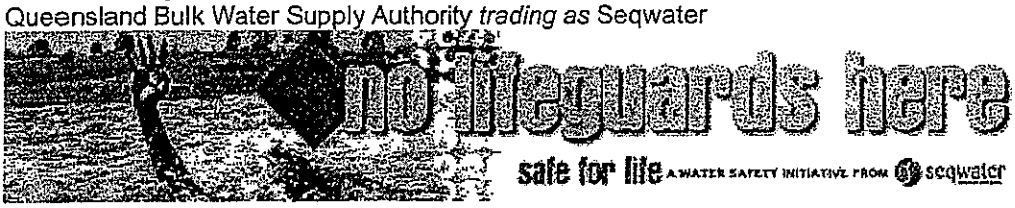
Litsupport Brisbane

From: Rob Drury [rdrury[redacted]
Sent: Monday, 10 January 2011 8:06 AM
To: Rob Drury; Dan Spiller; Paul Bird; Stan Stevenson; Peter Borrows; Peter.Allen[redacted]
Subject: RE: Technical Report W36
Attachments: Technical Situation Report W36.docx

Please disregard the previous report, it was based on older information, this is the latest update.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Monday, 10 January 2011 7:53 AM
To: Rob Drury; 'Daniel.Spiller[redacted]'; 'Barry.Dennien[redacted]'; 'Michael.Lyons[redacted]'; 'media[redacted]'; 'debbie.best[redacted]'; 'Scott.Denner[redacted]'; Paul Bird; Stan Stevenson; Peter Borrows; 'Peter.Allen[redacted]
Subject: RE: Technical Report W35

Attached report W35.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
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Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W36	Date of TSR release	10.1.2011	Time of TSR release	8am

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Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge flood waters but keep impact downstream to minimum.	
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	Lockyer/Bremer:	Monitoring their inflows
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Segwater Technical Officer name	Robert Drury

Seqwater Technical Officer position title	Dam Operations Manager
[redacted]	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

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SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator

SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

D194

dy Hulsey

From: Dan Spiller
Sent: Monday, 10 January 2011 8:13 AM
To: Rob Drury
Subject: RE: Technical Report W36

Categories: T8

Rob,

Are you now operating under release strategy W2 or W3?

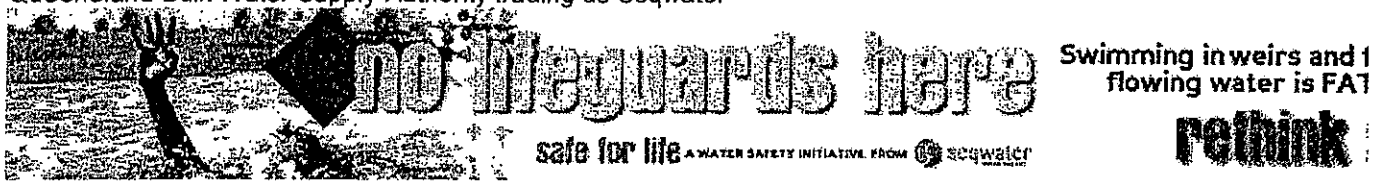
Dan

From: Rob Drury [mailto:rdrury[redacted]]
Sent: Monday, 10 January 2011 8:06 AM
To: Rob Drury; Dan Spiller; Paul Bird; Stan Stevenson; Peter Borrows; Peter.Allen[redacted]
Subject: RE: Technical Report W36

Please disregard the previous report, it was based on older information, this is the latest update.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

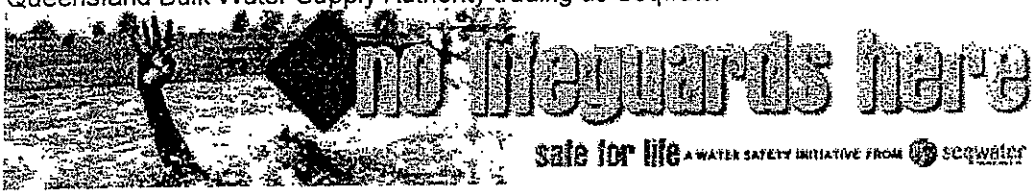
[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Monday, 10 January 2011 7:53 AM
To: Rob Drury; 'Daniel.Spiller[redacted]; 'Barry.Dennier[redacted]
'Michael.Lyons[redacted]; 'media[redacted]; 'debbie.best[redacted]
'Scott.Denner[redacted]; Paul Bird; Stan Stevenson; Peter Borrows; 'Peter.Allen[redacted]
Subject: RE: Technical Report W35

Attached report W35.

Rob

ɔert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



[redacted] | E rdrury[redacted]
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support Brisbane

From: Rob Drury [rdrury[redacted]
Sent: Monday, 10 January 2011 8:23 AM
To: Dan Spiller
Subject: Re: Technical Report W36

W2

From: Dan Spiller <Daniel.Spiller[redacted]>
To: Rob Drury
Sent: Mon Jan 10 08:13:29 2011
Subject: RE: Technical Report W36

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Dan

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Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

Swimming in weirs and fast flowing water is FATAL
rethink it.

seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
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Important information: This email and any attached information is intended only for the addressee and may contain confidential and/or privileged information. If you are not the addressee, you are notified that any transmission, distribution, or other use of this information is strictly prohibited. The confidentiality attached to this email is not waived, lost or destroyed by reasons of mistaken delivery to you. If you have received this email in error please contact the sender immediately and delete the material from your email system. QLD Bulk Water Supply Authority ABN75450239876 (Trading as Seqwater).

From:	Dan Spiller <dan.spiller[redacted]>
Sent:	Monday, January 10, 2011 9:46 AM
To:	stephen.robertson[redacted]; ken.smith[redacted] lance.mccallum[redacted] Tim.Watts[redacted] Geoff.Stead[redacted]; Lauren.Sims[redacted] Best Debbie <Debbie.Best[redacted] 'Martin.Peter.[redacted]; 'Dunn.KerryG[redacted]
Cc:	Rob Drury <rdrury[redacted]>; Paul Bird <pbird[redacted]>; SEQWGM Media <media[redacted]>; damien.brown[redacted] Reilly Bob <Bob.Reilly[redacted]; Madgwick.DarrenT[redacted]; 'Stan Stevenson' <sstevenson[redacted]
Subject:	Water Grid operations update
Attach:	Technical Situation Report W36.docx

All,

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Please call me on[redacted] if you require any further information.

Regards,
Dan

Daniel Spiller
Director, Operations
SEQ Water Grid Manager
[redacted]

D202

Email: daniel.spiller[redacted]
Visit: Level 15, 53 Albert Street Brisbane
Post: PO Box 16205, City East QLD 4002
ABN: 14783 317 630

TECHNICAL SITUATION REPORT

TSR Number	W36	Date of TSR release	10.1.2011	Time of TSR release	8am

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Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

D207

From: Dan Spiller <Daniel.Spiller[redacted]>
Sent: Monday, January 10, 2011 9:51 AM
To: Barry Dennien <Barry.Dennier[redacted]>
Subject: FW: Water Grid operations update
Attach: Technical Situation Report W36.docx

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To: 'stephen.robertson[redacted]; 'ken.smith[redacted];
'lance.mccallum[redacted] 'Tim.Watts[redacted]
'Geoff.Stead[redacted] 'Lauren.Sims[redacted]; 'Best Debbie';
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Cc: 'Rob Drury'; Paul Bird; SEQWGM Media; 'damien.brown[redacted]; 'Reilly Bob';
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Daniel Spiller

Director, Operations
SEQ Water Grid Manager
[redacted]
Email: daniel.spiller[redacted]
Visit: Level 15, 53 Albert Street Brisbane
Post: PO Box 16205, City East QLD 4002
ABN: 14783 317 630

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	Inflows:	Inflows expected around 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Rainfall

Moderate to heavy rainfall has been recorded in the Upper Brisbane and Stanley Rivers in the last 12 hours with totals up to 90 mm. Totals for the last 24 hours range from 100 to 325mm.

Mt Glorious recorded 100 mm in the last 12 hours.

Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level was 39.97 m and steady. Five gates are open releasing 475 m3/s. The inflow into the dam since the commencement of the event is 52,000 ML. Estimated event volume is 72,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level at 05:00 was 102.84 m AHD and rising (storing 193,000 ML above FSL). Peak inflow to the dam is estimated to be about 4,200 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam lake level will reach about 103.5 mAHD on Monday afternoon. Areas around Kilcoy will continue to be adversely affected.

Since the commencement of the event on 02/01/2011approximately 142,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This is expected to increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam have peaked and are falling slowly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have peaked at 7,350m3/s at 23:00 on Sunday 9 January. This peak is bigger than January 1974 and February 1999 at this location.

The dam level is rising quickly, with the current level being 70.77m AHD (storing 450,000 ML). Estimated peak inflow to the dam just from the Upper Brisbane R is around 8,800m3/s and, at this stage, the dam will reach at least 73.3 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it was necessary to start to increase the release from Wivenhoe during Monday morning.

The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, releases will be kept below 3,500m3/s and the combined flows in the lower Brisbane will be limited to 4,000m3/s if possible. This is significantly less than the current estimated combined pre-dam peak inflow of 12,000 m3/s.

Fernvale Bridge approaches and Mt Crosby Weir Bridge have been inundated and both bridges are now closed.

The current release rate from Wivenhoe Dam is 1,753m3/s (150,000ML/day). Gate opening will continue to be increased during Monday and the release is expected to increase to at least 2,600m3/s in the next 12 to 24 hours.

Since the commencement of the event on 02/01/2011 approximately 275,000ML has been released from the dam, with an event total approaching 1,600,000ML without further rain and as much as 2,100,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam. If the predicted rainfall eventuates in the downstream tributary catchments the resultant combined flows in the lower Brisbane may exceed the threshold of damaging discharge in the urban areas within the next 24 to 48 hours. Currently the estimate peak flow in the lower Brisbane River will be the highest since Wivenhoe Dam was completed in 1984 but still well below flows the 1974 levels.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Outlook

Heavy rainfall continues throughout South East Queensland and the situation could deteriorate rapidly over the next 24 hours. The flood operation centre will continue to monitor the situation and provide every six hours until the situation stabilizes.

Seqwater Technical Officer name	Robert Drury

Seqwater Technical Officer position title	Dam Operations Manager
[redacted]	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator

SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

Litsupport Brisbane

From: Dan Spiller
Sent: Monday, 10 January 2011 9:57 AM
To: Rob Drury; Peter Borrows
Cc: Barry Dennien
Subject: Technical Situation Report W36 (3)
Attachments: Technical Situation Report W36 (3).docx

Rob and Peter,

I am about to send the TSR to Colin Jensen for BCC input. Before doing so, I have amended it based on my understanding of our conversation. Can you please confirm that the changes reflect your strategy?

Dan

TECHNICAL SITUATION REPORT

TSR Number	W36	Date of TSR release	10.1.2011	Time of TSR release	8am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge flood waters but keep impact downstream to minimum.	
Strategy	• All bridges are now inundated .	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows expected around 1,500,000ML which is close to 1974 event.
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Outlook

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Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qlc[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs

SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

D212

Litsupport Brisbane

From: Rob Drury [rdrury[redacted]
Sent: Monday, 10 January 2011 10:02 AM
To: Dan Spiller; Barry Dennien
Subject: FW: Answers to questions from teleconference

Peter Borrows asked me to forward these on.

In response to the queries raised

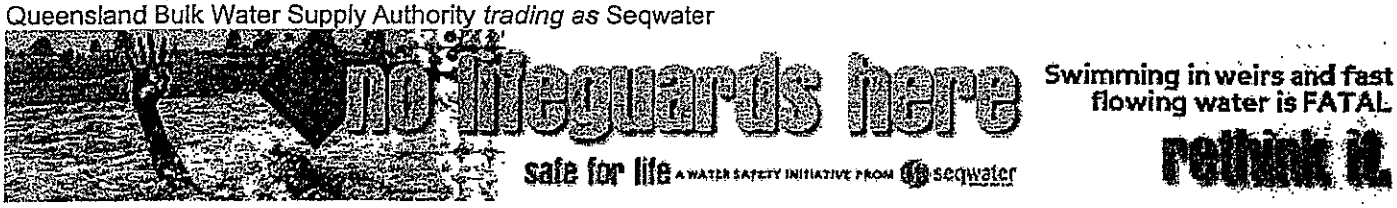
- The current operational strategy is to aim for a flow of no greater than 3,500cumecs in the lower Brisbane River. Accordingly, the current outflow from Wivenhoe Dam will be held at its current level of 2000 cumecs for the next 12 to 24 hours to allow for potential high flows from the Lockyer, Bremer and local area catchments to pass downstream. However this strategy may need to be revised at short notice if further significant rainfall occurs.

- It would require in the order of 50mm of rain across the Brisbane River Basin (this includes the Brisbane, Stanley, Lockyer and Bremer catchments) to go beyond the current operational strategy, however this depends on the spatial distribution, intensity and duration of the rainfall. This amount of rain is possible under current BOM forecasts.

- If there is a need to go beyond 3,500cumecs in the lower Brisbane around 24 hours notice should be able to be provided to BOM and BCC.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

Gina O'Driscoll

From: Peter Borrows [pborrows[redacted]
Sent: Monday, 10 January 2011 10:02 AM
To: Barry Dennien
Subject: FW: Answers to questions from teleconference
Attachments: image001.jpg; image002.png; image003.jpg

Regards, Peter.

Peter Borrows
Chief Executive Officer
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

[redacted] E pborrows[redacted]
Level 3, 240 Margaret St, Brisbane City QLD 4000
PO Box 16146, City East QLD 4002
Website | www.seqwater.com.au

Swimming in weirs and fast flowing water is FATAL. Rethink it.

From: Rob Drury
Sent: Monday, 10 January 2011 9:56 AM
To: Peter Borrows; Stan Stevenson; Paul Bird
Subject: Answers to questions from teleconference

Peter, If you want to forward to the WGM. Apologies for delay but they were in discussions with Councils.

In response to the queries raised

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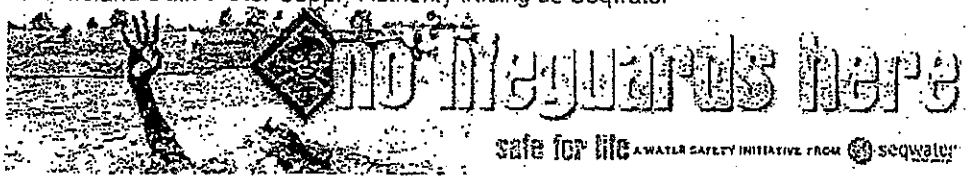
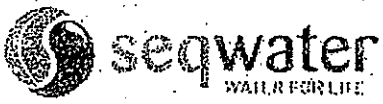




[redacted] E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

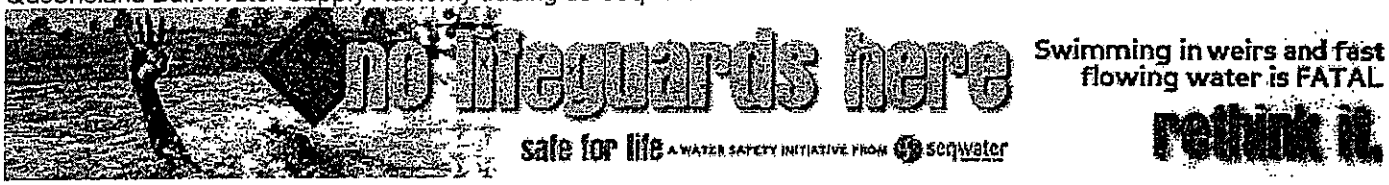
Litsupport Brisbane

From: Rob Drury [rdrury[redacted]
Sent: Monday, 10 January 2011 10:05 AM
To: Dan Spiller; Peter Borrows
Subject: FW: Technical Situation Report W36 (3)
Attachments: Technical Situation Report W36 (3).docx

Dan,
Some slight changes based on what I sent in response to the questions and updating the release rates as now.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



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From: Dan Spiller [mailto:Daniel.Spiller[redacted]
Sent: Monday, 10 January 2011 9:57 AM
To: Rob Drury; Peter Borrows
Cc: Barry Dennien
Subject: Technical Situation Report W36 (3)

Rob and Peter,

I am about to send the TSR to Colin Jensen for BCC input. Before doing so, I have amended it based on my understanding of our conversation. Can you please confirm that the changes reflect your strategy?

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TECHNICAL SITUATION REPORT

TSR Number	W36	Date of TSR release	10.1.2011	Time of TSR release	8am

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Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
[redacted]	[redacted]

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BoM Technical Officer contact details	flood.qld[redacted]

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ICC Technical Officer contact details	[redacted]

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SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

From:	Barry Dennien </O=SOUTH EAST QUEENSLAND WATER GRID MANAGER/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BARRY.DENNIEN>
Sent:	Monday, January 10, 2011 10:07 AM
To:	Dan Spiller <Daniel.Spiller[redacted]
Subject:	FW: Answers to questions from teleconference

Can you come in

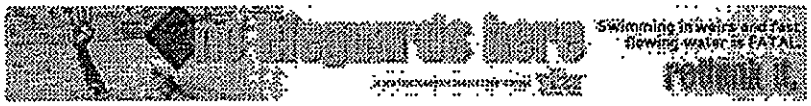
From: Peter Borrows [mailto:pborrows[redacted]
Sent: Monday, 10 January 2011 10:02 AM
To: Barry Dennien
Subject: FW: Answers to questions from teleconference

Regards, Peter.

Peter Borrows
Chief Executive Officer
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater

[redacted] | E pborrows[redacted]
Level 3, 240 Margaret St, Brisbane City QLD 4000
PO Box 16146, City East QLD 4002
Website | www.seqwater.com.au



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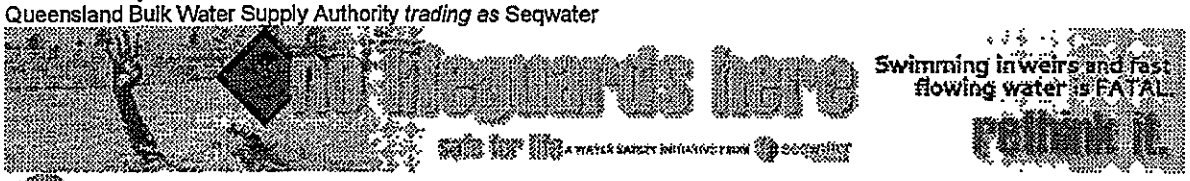
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater



[redacted] E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Dan Spiller <Daniel.Spiller[redacted]>
Sent: Monday, January 10, 2011 10:09 AM
To: ceo[redacted]
Cc: Barry Dennien <Barry.Dennier[redacted]>; Peter Borrows <pborrows[redacted]>
Subject: Technical Situation Report
Attach: Technical Situation Report W37.docx

Colin,

Further to our discussion, attached is the Technical Situation Report drafted by Seqwater following consultation with BoM and Councils.

Key points are:

- There is continuing heavy rainfall in catchments. Total inflows over the event will be at least 1,500,000 ML and probably above 2,100,000 ML.
- As a result, Wivenhoe Dam is above 140% of capacity and Somerset is above 150%, with both rising fast.
- As specified in the approved Operational Procedures, the primary objective is now to minimizing the risk of urban inundation (release strategy W2). This involves larger releases now, minimizing the risk of even larger releases later (were the flood compartment to reach high levels).
- Consistent with this release strategy, dam releases have increased to 2,000 cubic metres per second (172,000 ML/day). It is expected to increase to 2,600 cubic metres per second by midday tomorrow.
- As specified in the approved Operational Manual, we are targeting maximum flow in the Brisbane River of 3,500 cumecs at Moggill. This is the levels above which urban inundation begins.
- For comparison, flows would be up to 12,000 cumecs without the dams.

Seqwater has previously had verbal conversations with BCC staff regarding impacts. However, given the significance of this event, and consistent with the draft protocol, we are seeking formal BCC input to this version. This advice would relate to the impact of releases, based on the type of scenario analysis that you described this morning.

Our preference would be to finalise the report, including your input, before or at the 12.30 teleconference with Council CEOs and the BoM. This timing means that it can underpin all media messaging this afternoon.

I appreciate your assistance. Please call me if I can be of any assistance.

Regards,
Dan

Daniel Spiller
Director, Operations
SEQ Water Grid Manager
[redacted]
Email: daniel.spiller[redacted]
Visit: Level 15, 53 Albert Street Brisbane
Post: PO Box 16205, City East QLD 4002
ABN: 14783 317 630

TECHNICAL SITUATION REPORT

TSR Number	W36	Date of TSR release	10.1.2011	Time of TSR release	8am

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge flood waters but keep impact downstream to minimum.	
Strategy	• All bridges are now inundated .	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows expected around 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Rainfall

Moderate to heavy rainfall has been recorded in the Upper Brisbane and Stanley Rivers in the last 12 hours with totals up to 90 mm. Totals for the last 24 hours range from 100 to 325mm.

Mt Glorious recorded 100 mm in the last 12 hours.

Rainfall of similar magnitudes is expected in the 12 to 24 hours around the downstream catchments as the system tracks south.

A severe weather warning remains current for heavy rainfall in the dam catchment areas.

North Pine Dam (Full Supply Level 39.60 m AHD)

The dam level was 39.97 m and steady. Five gates are open releasing 475 m3/s. The inflow into the dam since the commencement of the event is 52,000 ML. Estimated event volume is 72,000 ML assuming no further rainfall. Gate operations will continue until at least Tuesday 11 January 2011.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level at 05:00 was 102.84 m AHD and rising (storing 193,000 ML above FSL). Peak inflow to the dam is estimated to be about 4,200 m3/s based on observed rainfall and could be as high as 5,000m3/s with additional forecast rainfall. Five sluice gates are open releasing about 1,100m3/s (95,000Ml/d) into Wivenhoe Dam. At this stage the dam lake level will reach about 103.5 mAHD on Monday afternoon. Areas around Kilcoy will continue to be adversely affected.

Since the commencement of the event on 02/01/2011approximately 142,000ML has been released from the dam into Wivenhoe, with an event total of the order of 520,000ML expected. This is expected to increase due to the forecast rain in the next 24 to 48 hours. At this stage, releases will continue until at least Thursday.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

River levels upstream of the dam have peaked and are falling slowly with significant inflow being generated from the intense heavy rainfall. Flows in the Brisbane River at Gregor's Ck have peaked at 7,350m3/s at 23:00 on Sunday 9 January. This peak is bigger than January 1974 and February 1999 at this location.

The dam level is rising quickly, with the current level being 70.77m AHD (storing 450,000 ML). Estimated peak inflow to the dam just from the Upper Brisbane R is around 8,800m3/s and, at this stage, the dam will reach at least 73.3 m AHD during Tuesday morning. Given the rapid increase in inflow volumes, it was necessary to start to increase the release from Wivenhoe during Monday morning.

The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam and, at this stage, the aim is to keep combined flows in the lower Brisbane to 3,500m3/sec if possible. Consistent with the approved Operating Procedures, these target combined flows may need to be increased to 4,000m3/s, and potentially higher. In either case, this is significantly less than the current estimated combined pre-dam peak inflow of 12,000 m3/s.

Fernvale Bridge approaches and Mt Crosby Weir Bridge have been inundated and both bridges are now closed.

The current release rate from Wivenhoe Dam is around 2,000m3/s (172,000ML/day). Gate opening will continue to be increased during Monday and the release is expected to increase to at least 2,600m3/s in the next 12 to 24 hours and further depending on downstream flows..

Since the commencement of the event on 02/01/2011 approximately 275,000ML has been released from the dam, with an event total approaching 1,600,000ML without further rain and as much as 2,100,000ML with forecast rainfall of (both including Somerset outflow). At this stage, releases will continue until at least Sunday 16th January 2011.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Saturday 15 January in varying degrees.

Water levels in the lower Brisbane R will be impacted by the combined flows of Lockyer Ck, Bremer River, local runoff and releases from Wivenhoe Dam. If the predicted rainfall eventuates in the downstream tributary catchments the resultant combined flows in the lower Brisbane may exceed the threshold of damaging discharge in the urban areas within the next 24 to 48 hours. Currently the estimate peak flow in the lower Brisbane River will be the highest since Wivenhoe Dam was completed in 1984 but still well below flows the 1974 levels.

Somerset Regional, Ipswich City and Brisbane City Councils have been advised of the updated Wivenhoe operating strategy.

Outlook

Heavy rainfall continues throughout South East Queensland and the situation could deteriorate rapidly over the next 24 hours. The flood operation centre will continue to monitor the situation and provide every six hours until the situation stabilizes.

Seqwater Technical Officer name	Robert Drury

Seqwater Technical Officer position title	Dam Operations Manager
[redacted]	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator

SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

Gina O'Driscoll

From: Lee Hutchison
Sent: Monday, 10 January 2011 10:21 AM
To: Dan Spiller; Barry Dennien; Scott Denner; Michael Lyons
Cc: Aleisha Coote; SEQWGM Emergency
Subject: 0830h Teleconference Notes
Attachments: Flooding 0830 10JAN11 Teleconference.docx

Colleagues,

Attached are the notes as taken during the teleconference today.

Lee Hutchison
Risk and Emergency Manager
SEQ Water Grid Manager
[redacted]
Email: lee.hutchison
Post: PO Box 16205, BRISBANE CITY EAST, QLD 4002
Visit: Level 15, 53 Albert St, BRISBANE
ABN: 14 783 317 630

Teleconference 0830h 10 January 2011 – Dam Releases and Flooding

In attendance

Barry Dennien
Dan Spiller
Scott Denner
Michael Lyons
Lee Hutchison

Seqwater – Peter Burrows, Rob Dury, Paul Bird, Stan Stevenson

Agenda

Review the current release strategy

- 3.5 and 4
  - Seqwater – Manual – 4, 000m3/s but aiming for 3,500m3/s – 4,000m3/s in the river
  - Will adjust timings based on what is happening downstream
  - Release at 3,500m3/s – currently at 2,000m3/s
  - 2,500m3/s in next 12-24hrs
  - Objective is to minimise urban impacts
  - Barry - @ 3,500m3/s comfortable through Moggill. Point between W2 and W3 is critical. Need to engage BCC at highest level when decision is made
  - Dan – above 3.5 – flooding attributable to dam releases – Comms need to be clear
  - Peter Burrows – 8,800-9,000m3/s inflows
  - Barry - - Team talks to BCC and Bom (planned above 3.5), check concerns (not input into model), document any concerns
  - Peter – how much notice can we give that we are moving from 3,500m3/s to 4,000m3/s at Moggill – **Key question.**

Scenarios –

- W2
- BCC second scenario – river at 3,500m3/s with local rainfall causing localised/flash flooding.
- Barry – inflows in calcs?
- Dan – could it go over 4,000m3/s?

Action - Seqwater will come back with some further modelling info next hour.

How long at 3,500m3/s

Trigeer to go from 4,000m3/s and up

Grid Operations

- WTP
- Stan – Somerset – some facilities shut down.
- Site access – emerging issues
- Landslips – emerging issue

- Landers Shute – landslide issues***
- Kenilworth – 36hrs
- Mt Crosby – OK.
- More detail at 1100h
- Need to max sys storage. Linkwater comfortable
- Staff unable to return from leave or access workplace – is resourcing a risk?

Coordination –

- 1000h Min
- 1030h Min
- 1100h Grid OPs
- 12PM meeting BCC/BoM (telecon)
- TSRs - BoM and BCC – update with issues and expectiations
- W37 post 1200h teleconference as technical basis for media comms

Communications

- 1400h TV
- Short advisory am hrs earlier today

Level 3 Emergency Escalation

- Emergency Manager appointed - Dan
- Comms Manager appointed – Michael

Teleconference end at 0902h.

Tipping point discussion – how long can we hold for and what are the risks

SEQWGM Actions

- Distribute TSR to BCC and Bom for formal input and endorsement
- Communicate TSR to Gov't stakeholders

Dan Spiller

From: Gina O'Driscoll
Sent: Monday, 10 January 2011 10:23 AM
To: Carl Wulff (cwulff[redacted]); colin.jensen[redacted]
bbain[redacted]
Cc: fernvalefutures[redacted]
Subject: FW: Wivenhoe Dam release strategy
Attachments: Technical Situation Report W37.docx

Importance: High

From: Dan Spiller
Sent: Monday, 10 January 2011 10:11 AM
Subject: Wivenhoe Dam release strategy

Carl and Rob,

Attached is the Technical Situation Report drafted by Seqwater following consultation with BoM and Councils.

Key points are:

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Seqwater has previously had verbal conversations with Council staff regarding impacts. However, given the signing of the Interim Event Protocol, we are seeking formal Council input to this version. This advice would relate to the impact of releases, based on the type of scenario analysis that you described this morning. (NO RESPONSE RECEIVED.)

Our performance would be to finalise the report [redacted] before or at the 12.30 teleconference with Council CEOs and the EOM. This timing means that it can underpin all media messaging this afternoon.

I appreciate your assistance. Please call me if I can be of any assistance.

Regards,
Dan

Daniel Spiller
Director, Operations
SEQ Water Grid Manager
[redacted]
Email: daniel.spiller[redacted]
Visit: Level 15, 53 Albert Street Brisbane
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ABN: 14783 317 630

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Seqwater Technical Officer name	Robert Drury

Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

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ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

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SRC Technical Officer position title	Local Disaster Response Coordinator

SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

Gina O'Driscoll

From: Barry Dennien
Sent: Monday, 10 January 2011 11:32 AM
To: Scott Denner; Dan Spiller; Michael Lyons
Cc: Barry Dennien
Subject: Actions form Minister's meeting
Attachments: image001.gif

Gents

Note assigned actions:

1. Contact DIP and get the status of Wyaralong – Dan's team
2. Manage Somerset Council!!! Re folks affected by the Burtons Bridge closure – Mick / Scott
    a. Check they have been contacted
    b. Check that provisions are provided
3. BCC meeting – Dan Barry
    a. Joint press statement
    b. Sharing of modelled resident impacts at river levels above 2.6m
    c. Increased River levels due to releases at 2800, 3500, 4000, >4000 – BOM
    d. 74 map and river height / comparison to above scenarios
4. 74 flood river flow rate - Seqwater

Regards

Barry Dennien
Chief Executive Officer
SEQ Water Grid Manager
[redacted]
Email: barry.dennien[redacted]
Visit: Level 15, 53 Albert Street, Brisbane
Post: PO Box 16205, City East Qld 4002
ABN: 14783 317 630

Transcript of meeting on 10 January 2011 – 12.30pm.

Attendees (in person and via teleconference):

SEQ Water Grid Manager: Barry Dennien (**BD**), Daniel Spiller (**DS**), Scott Denner, Michael Lyons, John Adcock

Seqwater: Peter Borrows (**PBor**),

Brisbane City Council: Colin Jensen (**CJ**), Shane McLeod

State: Ken Smith (**KS**), Karl Walsh

Bureau of Meteorology: Peter Baddiley (**PBad**), Jimmy Stewart (**JS**)

Office of the Water Supply Regulator, Department of Environment and Resource Management (DERM): Bob Reilly

DERM: Debbie Best

Ipswich City Council: Ipswich City Council representative (**ICC**)

Somerset Regional Council: Bob Bain (**BB**), Graeme Lehmann, Tony Jacobs

Minister Robertson's office: Minister Robertson

BD	...is being proposed around addressing those forecasts. So to kick off I'd like Peter – if you like, Peter Borrows – just to give us an update on dam levels, current release rates.
PBor	Wivenhoe Dam is currently 52% above full water supply level and Somerset Dam is 210,000 megalitres above full supply level so that would be discharging – and is discharging now into Wivenhoe. Currently the release strategy is to design the releases – and we're releasing about 2,000 mega – cubic metres a second out of Wivenhoe into the river and that's designed to have a flow rate at the Moggill gauge of about 3,500 megalitres a second. So that's the current arrangement.
BD	The – thanks, Peter. Peter, just a few additional facts. In the – in the course of the last 24 hours some of the inflows into Wivenhoe Dam peaked at around 12,000 cumecs, just to give a comparison, the release rates at that stage were about 1,300 cumecs. At the moment, Peter, they're going to about 2,800 cumecs, I believe, out of Wivenhoe.
PBor	We're increasing it to that.
BD	Yes.
PBor	But still – we're not there yet.
BD	Okay.
PBor	But the inflows, as Barry said, combining Somerset and Wivenhoe together is around the 12,000 cumecs.
BD	The – and we're trying to – strategy at the moment is to try and maintain the river, which is the combination of the dam releases, and Lockyer Creek, Bremer, et cetera, and overland flow at Moggill at 3,500 cumecs. So that's the current strategy. So is there any questions on information on where the current state of

	play is with the dams, before we talk about forecasts?
CJ	Yeah, Colin Jensen here. I understand our offices were talking this morning and actually there was a revised strategy down from 3,500. Is that not correct?
PBor	What do you mean '*down from 3,500*', Col? Lower?
CJ	As at – as at midmorning I was told that Seqwater was proposing a revised strategy which was 2,000 cumecs released from Wivenhoe plus 500 of river inflows making a total at Moggill of 2,5000 cumecs.
PBor	No, the target – the target's still 3,500, Col. But when we get onto the revised strategies, there's been a lot of rain in the catchment in the last few hours again so – but we'll wait until the BOM come in on that.
CJ	Okay. So to be clear, the 3,500 is the target?
PBor	That is the current target.
CJ	And will you give me the timetable of ramping up to that again, please?
PBor	Well...
CJ	'Cause this is different to what my flood information people are actually modelling right this moment.
KS	Yeah, Peter, it's Ken here. Can you break up that 3,500 in terms of the components? What's – what's released from Wivenhoe and what would the local – you know, the – you know, the water flow outside of Wivenhoe?
PBor	Yeah, I'm just checking something.
Voice in background	3,800 out of Wivenhoe...
Unknown	Mmm.
Voice in background	...700 out of the others.
CJ	It's Colin here. My understanding was 3,000 out of Wivenhoe, 500 out of river catchments below Wivenhoe, making a total of 3,500 at Moggill.
BD	So – so, Peter, that's not what you just said – 3,500 at Moggill was the...
PBor	3,500 at Moggill.
BD	Yeah.
PBor	That's the same number, isn't it, Col?
BD	That's the same number, isn't it, Col?
CJ	Yes.
KS	Yeah, it's the question of how much out of Wivenhoe. How does that...
PBor	Oh, yeah, okay. Righto. Well it was 2,000 ramping up as the...
BD	Yeah.
PBor	...as the projections came down. As projections out of Lockyer and Bremer came down, Wivenhoe was ramping up to try and maintain the 3,500 at Moggill.
CJ	Yeah, Colin here. So my understanding was that you're currently at about 2,000. You'll be ramping up to 3,000 as the other inflows drop to 500, maintaining 3,500 at Moggill.

PBor	That's the current release strategy, yes.
CJ	Yeah.
BD	Just of note...
CJ	My...
BD	...in the technical report, Col, that came out earlier this morning it was 2,000 ramping up to 2,600, still maintaining 3,500 at Moggill but that may have changed, as Peter's just said, as – as the inflows from Lockyer even decrease lower they'll increase Wivenhoe a bit more but still maintain 3,500 at Moggill.
PBor	But just to restate, that's the current release strategy.
BD	Yeah.
CJ	Yeah, can I just check, is there a proposed lower release strategy, because that's what I was being advised this morning.
PBor	No.
CJ	Okay. So that – for us, that's actually a confusion based on advice that officers have been told at about 10.00 this morning.
KS	Who – who advised you, Colin?
PBor	Yeah.
CJ	I haven't got names, but it's out of Seqwater to the Flood Information Centre at BCC.
BD	So...
Unknown male on phone	That's what I said.
BD	Okay. So what we'll do – we'll just – we'll – Peter Borrows is going to run that one to ground, if there was a miscommunication but what was in the technical report basically was the strategy as of his morning and – but even that we'd like to revise now and if everyone's happy with that base information, what we'd like to do is just talk about this – the change in the catchment and what's going on with the rainfall and to get the BOM to come in here, if they could, and give us two things – one is a bit of an update on what's occurred maybe in the last three or four hours and then secondly, what the forecast is in the catchment over the next coming 12/24 hour period.
PBad	Yeah, morning – good afternoon, all. Peter Baddiley – just speaking initially – I think just listening to that discussion the – the situation is changing hour by hour so a – a TSR of 8.00am – technical situation report of 8.00am is dated within hours after – within a few hours after its written, so it's old information but if I just bring an update. The last three hours there's continuing significant rainfall. There is increase in the upper Brisbane catchments and in parts of the Lockyer. Flows are increasing through the system. Currently we are operating with an expected peak of 3,700 in the Brisbane city reach but that's based on an – on a – on a, if you like, scenario of release strategy of a few hours ago and as I understand it that would be modified fairly soon. Just take account of the increasing - continuing higher rainfalls into the catchment. In terms of forecast rain, we gave on the briefing this morning to a State Disaster Coordination Centre, a further 50-100 millimetres over 24 hours with possible 150 millimetres in locations and as – as we speak now the rain is continuing with some of the three hourly totals above – above Wivenhoe being up to about 60 millimetres in three hours in some places and fairly

	significant areas of rain over the – over the catchment.
BD	Thank you, Peter. Based on that information, Peter Borrows now has had his team reference the operational manual and have a look at a revised strategy which, my understanding, Peter, will take it possibly above 3,500 at Moggill gauge. Peter, do you want to give us an overview of the new revised strategy?
PBor	Yeah, the flood operation centre's currently going through that same information that Peter Baddiley has just conveyed to the – to the group and looking at what the revised release strategy should be. The release strategy that we have has that when Wivenhoe hits 78% above full supply level then the operating mode shifts to – to basically making sure the dam – the dam's safety becomes the paramount sort of number and the effects of the dam's safety and people downstream becomes the paramount. The predicted maximum level was going to get to within 75,000 cubic metres of the full supply level prior to this upgraded rainfall that we've experienced over the last three years – three – last three hours and we are also now only – and that level would've been 3,300 – 3,300 – 3,000 – 330,000 megalitres, sorry, below the – the peak that would trigger the first – first fuse plug. So essentially what we're now doing is revising that release strategy and that will be available within the next two hours but it is extremely likely that that would increase the releases significantly above the targeted figure at Moggill at 3,500.
CJ	Colin here. So to what sort of extent – just in the ball park?
PBor	We – we're still working that through, Colin. I haven't got the answer to that yet and I'll have it within the next hour or two.
KS	So – yeah, it's Ken here. In the next hour you'll have it?
PBor	Yes, correct. Yeah.
KS	Yep. Thanks, Peter.
PBor	And – yeah.
BD	So...
CJ	Colin here. Because even – and the confusion around the – being able to drop to 2,500 total stream flow rather than 3,500 – just the difference in those two numbers to us is actually several thousand properties inundated and it's the difference between actually us managing a property damage incident which didn't impact upon residents. At 3,500 we're now actually – will have to ramp up to probably evacuations.
KS	Sorry, Colin – Ken here. At 3,500?
CJ	Yeah, we were actually – in coming out of the meeting that – when you and I spoke, that I'd just come out of, we were working on a 2,500 as – as per some maths computing advice and we were looking at next week for the king tide, as we looked further ahead, just to be...
KS	That's the 21st
CJ	21st, correct.
Male	Yes.
CJ	Our – if you like, our worst case planning on that was to work at 4,000 cumecs at Moggill and at that we're actually into the thousands of properties inundated. So now what I'm hearing is that I'm definitely at 3,500 by – and I have to check the time there, but by Wednesday high tide peak at 2.00pm and I'm possibly running up to my 4,000 number.

BD	Yes. Col, Barry Dennien here. Dan is going to shed a little bit of light on this confusion this morning around this – this lower figure that – that the officers were talking about. Dan, did you want to talk to that?
DS	Yeah, I – I just was speaking to Rob Drury. Rob advised that what he'd told the officers this morning is that because of flows in the Lockyer they were looking at that stage of holding the releases at 2,000 cumecs and doing so for a period of about ten hours to provide some time for the downstream impacts – downstream flows to peak but that – obviously that's subject to the rainfall that's occurring in the catchment now which is causing the – the review of strategy which Peter described. But at that time they were trying to hold at 2,000 rather than continue ramping up by – to 2,000...
CJ	Yep. Okay, well that explains it. And you're telling me, to be crystal clear, that strategy's definitely gone.
BD	That one's gone. And there's a...
CJ	And instead we're talking about ramping up beyond 3,500 total.
BD	What I'm hearing, Col, to be really clear, is from the BOM's forecast and from the inflows that we've just been briefed on in the last two hours, that the most likely scenario will be above 3,500 at Moggill and Peter Borrows is not willing to put a number on that at this point until that modelling's finished in the next hour and a half or so.
CJ	Okay.
KS	So in terms of – it's Ken here. Peter, in terms of Wivenhoe's history, have there been releases of amounts we've been talking about?
PBor	No. No, we haven't.
KS	It hasn't since – since – since the dam was put in place there haven't been releases of these amounts?
PBor	Well certainly not since the – the mid-80s and so – and I think the answer to your question, Ken, is no, there hasn't been any and certainly not since the mid-80s.
BB	Peter, it's Bob here from Somerset. Are you releasing from the Somerset Dam at the same rate you're releasing from Wivenhoe?
PBor	We're releasing at a lower rate from Somerset into Wivenhoe, but as you know, Bob, there's flooding from upstream of Somerset as well.
BB	That – that's right. There's going – that's backed up into the township of Kilcoy.
PBor	So we – we are releasing from Somerset. We've got the five sluice gates in Somerset open.
BB	Mmm-hmm.
CJ	Colin here. To assist, could you – 'cause I've actually had conflicting advice on this too so I might as well ask the experts, what's the maximum release rate in cumecs from Somerset and from Wivenhoe?
PBor	I can't give you that answer off the top of my head, sorry, Colin. I'll have to give you that answer.
CJ	That's okay. It's just the number keeps heading north.
PBor	Yeah.
CJ	I – I thought we'd passed the number a couple of times now so...

PBor	Yeah, well we certainly haven't passed the maximum release out of Wivenhoe.
CJ	No.
PBor	We're significantly below Wivenhoe.
BD	And just – Col, just on that, in that manual the – the flood manual, it clearly talks about releases above 4,000 and well above that in the manual, when the bigger inflows and the storages have – and the flood storage starts to fill. So I think going above 4,000 cumecs was always part of the original plan if required.
CJ	Yeah. Okay, but the...
PBad	Peter Baddiley – Peter Baddiley, if I could just make a comment at some stage.
BD	Yeah, go ahead, Peter.
CJ	Yeah, I'm willing to wait.
BD	Peter, when you're ready.
PBad	Oh okay. I was just going to comment that – with the current release strategies which was established several hours ago and it's about to be revised upwards, we were modelling about 3,700 cumecs through Brisbane anyway now because there's about a thousand cumecs of local inflow still increasing from Lockyer and Bremer so we're already up around the 3,700 level. What will now happen is that within the next hour or so Seqwater will give us their new release strategy, we will put that back into the model, we will re-crunch the numbers and we will come out with whatever the – with the current rainfalls, the increasing Lockyer and Bremer, Warril flows plus the new strategy, we'll be then looking – able to say what the new peak flow is through the Brisbane city reach. That – that will now depend on when the release strategy is given to us and then our warning is due for a re-issue at 3.30pm. We will talk then to Brisbane City Council's FIC to agree on what height – what flow and what height we'll be using in the public warning as per all of our arrangements.
BD	Col, Barry Dennien. Col, could you share with us a bit of your – you mentioned you had some scenarios modelled when we spoke this morning, that you were working up some scenarios and you mentioned then a little earlier that you had a scenario run at 4,000 cumecs at the spring tide?
CJ	Yep.
BD	Would you – would you have that information available to share on how many properties might be affected at that level?
CJ	I don't have the latter bit, in terms of how many properties are impacted at 4,000 simply because this morning inappropriately we've put that work aside and pursued a lower number than 4,000 cumecs at Moggill. So I don't have the number there but to give you some idea, at a river height of 3.1 metres which is what we're looking at the window achieving about now, in the next half hour, which is the level that we've achieved probably three or four times since late December, since just before Christmas. At that sort of level we have 6,500 properties – not houses, properties partially inundated due to the river and tidal creek.
BD	Mmm-hmm.
CJ	And some 221 of those fully inundated. So that's a 3.1 metre river height. My understanding is 3,500 cumecs at Moggill equates to a - tide height I'm talking here – of about 3.5 to 3.7 metres. And 4,000 cumecs obviously is somewhere north of that as well.

BD	Mmm-hmm.
CJ	So if I just put it into what have we dealt with recently, we've been dealing with tide heights of around 3.1 and below. Lower tides this week but higher stream flows from catchments - and including the dam releases has been keeping us at 3.1. We're now probably looking at somewhere higher than 3.7 by Wednesday, 2.00pm high tide. So we'll have to run those numbers. I have actually got some inundation maps that we've just produced at 4,000 cumecs and that's what I was referring to, saying that we were using that for our medium term planning for Friday the 21st...
BD	Right.
CJ	...in terms of the king tide effect.
BD	And...
KS	Are you able to share those maps, Colin? It's Ken.
CJ	Yeah, we can pump them out. I actually haven't got a set with me yet but they're very large obviously.
KS	Yep.
CJ	What we were planning – and I'll pause here and we'll come back to it no doubt at the end of this call, about lining our ducks up on communications – we were planning at going out mid-afternoon with the Lord Mayor to the city residents in terms of saying that as BOM and everyone's saying it is wet out there and we will be getting tides higher than we've been getting recently, we've been talking about getting – we're actually making sandbags only as fast as they're going out the door or putting it more practically, as fast as we can make them, they're leaving our depots at the moment. We're about to push staff onto sandbag marking rather than other activities and our target was to produce 30,000 bags by the time we got to Wednesday's high tide circa 2.00pm.
KS	Colin, Ken here again. The 3.1 and those figures on partially inundated and fully inundated – the fully inundated is water in the property, as opposed to water around the property?
CJ	To be clear, I'm using the word '*property*' not '*residence*'.
KS	Yep.
CJ	So in fact people should just throw those numbers away, is my recommendation. Some of the 6,000, for example, will be council parklands and the like.
BD	Okay.
KS	Okay.
BD	Yeah.
CJ	So - so we use that for our response in terms of where do we actually have to do debris cleanup and – and the like, so...
KS	So not necessarily the buildings, per se?
CJ	Correct. The – the two measures that we're actually producing – and as soon as we get off this call I'll reorientate them back to the higher river height levels, rather than waste the time down at the lower ones – firstly is which houses and business premises have water into them.
KS	Yep.

CJ	And then secondly which houses actually have water into habitable areas.
BD	Mmm-hmm.
CJ	So we get concerned at the first one because people lose their washing machines and potentially cars should be shifted from under their house.
KS	Yep.
CJ	The second one is, they've enclosed under their house or they're only a ground floor dwelling and they get water into the home proper.
KS	And – and that's the distinction, Colin, that we've had at a – at a state level, looking at basically water above the floorboards and water into the – you know, the property but not affecting the – the building itself. It – can I just ask you, do you need any additional resources around the – the sandbagging production and filling of sandbags?
CJ	My answer an hour ago was no. I might actually now change that to a yes.
KS	I think...
CJ	We'll just work out exactly what we require and I'll come back to the district coordinator.
KS	Yeah. Yeah, okay. And come straight back to me and I'll get people through the SDCC, you know...
CJ	Okay.
KS	...to ensure we get that sorted.
CJ	Yep. Can I just be clear on that home inundation again because this is one that matters and I know the Premier and the Lord Mayor have already spoken about it and it's one that the media about immediately, when you said '*floorboards*', I'm actually being a little bit finer grained in my distinction there. My first category is water into the home...
KS	Yep.
CJ	...but being heartless about it, if it's not actually affecting their ability to live in the home - that is it's actually downstairs laundries, garages and the like – they still get to live there.
KS	Yep.
CJ	So that's water downstairs. My second category is water into the living area of the home, the habitable area...
BD	Yes.
CJ	...and hence we need to evacuate.
KS	Yep, yep.
CJ	So if I took a typical two storey Queenslander home, my first category is water's downstairs, that they can live upstairs potentially without power or water supply or anything but they can live up there. The...
KS	Sure.
CJ	...second category is, they're on the kitchen table and I need to get them out.
KS	Yep.
BD	Col, Barry Dennien. Just clarifying the gauge heights you mentioned before, Col,

	what gauge was that that you were talking to - referring to?
CJ	I'm referring to Port Office.
BD	Port Office.
CJ	The gauge.
BD	Okay. And BOM – Peter, you still there?
PBad	Yes, I am. Yes.
BD	BOM – Peter, can you just clarify your process? You mentioned before you got Peter's release information, you then have your stream flow information and you calculate the river height at the Port Office as part of a process?
PBad	Definitely. We will take the new strategy in when it's released...
BD	Okay.
PBad	...rerun the model, but now I'm quite confused because – because the previous discussion was talking about three metres. In my – my rough thinking, 4,000 cumecs would give three metres AHD not three metres tide datum at the – at the gauge. So I think somehow or other – I'm not too sure. The 6,500 properties, 220 flooded at something like three metres, that sounds like AHD not tide datum.
BD	So...
CJ	No, I'm – I'm talking tide datum so yes, we have a real problem. If I add 1.24 to that we're in – we're in serious levels of inundation.
BD	So...
CJ	So, to be clear, if I looked out the window at the moment at the Brisbane River, we're kind of – haven't actually checked in the last couple of hours but with all the additional flow from the various sources, you know, the looking out the window test says we're at about three metres tide height datum. I haven't checked the gauge just at the moment.
Unknown male	No, it's at one point...
BD	The – sorry, just – I'm being...
CJ	Can I just say...
BD	Yeah.
PBad	Can I just say, to go from side datum to AHD we've got to subtract 1.24 metres.
KS	Yeah, it's Ken here. I think, Peter, once the – the estimates of the release arrangement are made, we really need the – the Bureau to give us the – you know, the estimated height at the Port Office. I mean, I – it is – this is a very difficult conversation but I think we'll need your estimate as quickly as we can after the – after the water grid manager has – and Seqwater have actually done their calcs on what needs to be released.
PBad	Yeah, thanks, Ken. And I'll just go through the process again that we've been following all day. What will happen is Seqwater will give us a new release strategy, we will run up the model which – that only takes ten minutes – and evaluate those results. We go back and discuss with Seqwater that we've got the right – we're in the same ball park with their releases, with – with what they've been modelling downstream. We – we get in the same ball park, then we make a phone call to Brisbane City Council FIC and indicate the sort of heights that we – our model is predicting and we will be using metres AHD at the Port Office. Following – following that discussion we – we update the Brisbane flood warning

	which is due for 3.30pm this afternoon with the revised height, metres AHD and that's a public – that's a public warning. So at that stage we've – we've got agreement with Seqwater on modelling upstream and downstream and we've got agreement with Brisbane City Council on the projected or predicted flood levels in AHD downstream and as – as our warnings did at 10.00 this morning or 10.30 this morning, we will give levels in metres AHD at Ipswich, Moggill, Jindalee and Brisbane city and you can see the format in the warning at 10.30 this morning. So there will be a revision this afternoon at approximately 3.30pm, if not before if the release strategy is significantly different.
BD	Just to - bit of background information, the current level as of 20 minutes ago is 1.6 metres, Col, at the Port Office.
CJ	Yep.
BD	So that's...
CJ	AHD?
BD	AHD.
CJ	2.84 therefore tide height.
BD	Okay. So are you concurring with that, Peter?
PBad	I – yeah, that's right. I mean, 1.6 metres AHD plus – correction the tide datum would give you that number plus 1.24. I think what – what I will do is just continue to talk - as we talk with the public and in all of these technical discussions – that we will talk in AHD, which is – which is the reference for the flood warning gauge at the Port Office.
CJ	Yeah, Colin here. Just to be clear, we know you do – to be clear, we will talk in tide because actually our experience is the public don't know what we're talking about when we talk in AHD. So I accept what you're saying but just to be clear, I'll talk in tide. So I'll keep adding 1.24 whenever I name a number and you'll keep subtracting it from mine, and vice versa. Can I just – perhaps, Peter Baddiley, it would be good if actually...
PBad	Yep.
CJ	...you could run through those – the 2.84 that we just talked about – 1.6 plus the tide correction...
BD	Mmm-hmm.
CJ	...giving you 2.84 20 minutes ago.
BD	Yeah.
CJ	Could we just run through how you believe that's made up, in terms of what the contributing flows are?
PBad	Yeah, we can – we can have a look at that and I'll have Jimmy look at that now. Could I just come back to the – if we're going to give two datums, this will be a change in our procedures that we've agreed with council. Do you think then – either we're going to use these two numbers consistently – in other words, the Bureau should – should give both numbers – I'm just concerned that there's going to be confusion with two numbers floating so I'm quite happy to do what – do – to make last minute changes to this, but I think we just need to be clear, you know, that we are doing this and whether the Bureau should give both numbers, the AHD value and the tide value which would – would now be a departure from the procedures we've agreed with – with the engineers in council over the last several years.

KS	It's Ken Smith here. Peter, look there is an issue here of statewide consistency and I'm – I'm assuming your levels, that you're issuing, are – when we talk about, you know, peak heights – are in fact not the tide heights. They are the – the – the – as you're saying, the consistent way of describing this across the state, whether this is in St George or Gympie, is the way that you've described?
PBad	Generally speaking, although tidal areas vary. In some cities – for example, Mackay, they want to use the tide gauge, but for Brisbane city all of the reference information we have for Brisbane's flood is against AHD and that was established shortly after the 1974 flood – the 1974 flood was 5.5 metres AHD and has – we've been using AHD levels since shortly after the '74 flood, from my knowledge...
CJ	Yeah, it's Colin here. To be clear, every engineer in council absolutely uses AHD. Everyone that does buildings and planning approvals and - everything else uses AHD. What I'm talking about is every time we issue a statement to the public, they don't know what AHD is and we actually therefore say you have to add – so if we talk about one of our alerts, it'll actually say it is actually just triggered stream height AHD, add 1.24 metres to actually get the tide height. So if you talk foreshore flooding at Sandgate, it'll say the gauge has just tripped one point whatever metre AHD and then it'll say '*(add 1.24 metres to get your tide height)*'. The reason being is that the public don't actually get AHD.
CJ	So...
Unknown male 2	Yeah.
CJ	Boaties, fisher people, surfers – they understand tides, they don't get the – particularly when we're talking tidal flooding here. I'm not talking, like, stream flows and flash flooding...
CJ	...up the top of the creek. We're just talking the river streams. But, look, I'm happy that we pursue that with you more offline as to what it does. Ken, I'm very happy to ensure that we have statewide consistency...
KS	Yep.
CJ	...in terms of the way alerts go out, but if we go out and actually talk about, you know, the Brisbane River outside our office here – and a quick visual check says that it's now just lapping the bottom of the boardwalk outside GOMA and the art gallery, which means she's just actually probably starting to push three metres or just below three metres – so that's why I was actually interested. Because when we did this on Friday, about the same time and we were actually on a different teleconference with my FIC – Flood Information Centre – people, what we were getting from the BOM information and the modelling – just to use one example, and this isn't criticism, it's just the difficulty that we're dealing with here – is that we were dealing with a 0.3 metre oceanic sort of correction or addition and then in the end it turned out to be 0.501. So we're actually having to track it reasonably closely. On Friday actually we were slightly flat footed in terms of the number of roads that we proactively closed because we actually had an eight inch tide height difference compared to what the model was saying and actually what we went out and did. So that's why I was interested as to how the 2.84 20 minutes ago actually is made up or – in terms of, from the base tide then plus how much is Wivenhoe adding, how much is Lockyer and Bremer adding and how much is local – if you like, Brisbane – adding to it? That's the way we've been calculating it, in terms of being able to work it up as a communication.
PBad	Ken and Col, could I just please add a comment that as we get increasing flows the 1.24 does not apply - as we get increasing flows the 1.24 only applies to

	Brisbane city at low flow. As we get higher flow, the tide is progressively drowned so you don't add 1.24 to it. The – all of the levels that we give are on AHD, partly for that reason. If we go through to – now to four and five thousand cumecs, whatever the number might be, we don't use 1.24, the tides become progressively drowned.
CJ	Okay, that makes sense.
KS	And thank you, Peter. I think that's really important and, I mean, clearly this is a discussion that – that has to occur between all of the parties and, Colin, any information that – that council puts out has to have regard to, you know, that bit of information, that it's not just, you know, adding the 1.24 to the AHD levels.
CJ	Yeah, really the information that we put out basically – so for example, mid-afternoon we'll be putting out something which actually – I'm getting more concerned about what we actually need to put out, in terms of the amount of inundation that we're now expecting with this. The reality is we won't be saying a metre level in that at all. Rather we'll be saying, look this amount of water's coming downstream...
KS	This is what it will be.
CJ	Yeah.
KS	And – and going back to your point, I think what we need, Barry and Peter, is a break-up of what's the effect of the release from Wivenhoe and what's the effect of tide and – and of other water coming into the – the system from, you know, other sources – yeah.
BD	Yep.
KS	On this side of the dam wall.
BD	Can, at this point, I just bring in Ipswich. Carl, you're still there?
ICC	I'm still here.
BD	And Peter, have you got any comments on Ipswich – the impacts on Ipswich with the releases – be they increased from Wivenhoe.
PBad	Yeah, re – re Ipswich, we're indicating to reach at least 9.5 metres during the early hours of Tuesday. This will now depend on how much run-off – how much rainfall and run-off we get in the Bremer Warril systems. We'll be revising that during the day according to the rainfall that's recorded. Ultimately when the flows reduce in that system, the heights at Ipswich will ultimately be similar to the heights at Moggill. So we'll go into a – a backwater flood situation...
BD	Mmm-hmm.
PBad	...for – for Ipswich ultimately but at the moment we've got fairly high inflows coming through to Ipswich and in terms of the break up of flows from – from releases from – from – the break up of the heights between what various contributions they are, that virtually changes hour by hour but right at the moment we're using about a 0.4 metre coastal anomaly - that's from the set up of the ocean - is adding 0.4 metre to the tide, then we model the combined flow through the Brisbane city against that predicted tide to get the levels upstream. In terms of – based on a previous strategy, we were looking at a maximum of about 3,700 in Brisbane – based on previous strategy – with 2,700 of that coming out of Wivenhoe. But at the moment we've got about 700 cumecs coming out of the Lockyer system, probably of the order of 500 coming out of the Bremer system – something of that order.

BD	Okay.
Carl	Well, if we get the 9.5 at Ipswich, we know what that looks like.
BD	Thanks...
PBad	It could potentially higher if we get heavy rains in there and we'll just keep looking at making predictions for Ipswich based on what rainfalls are in the catchment and based on what level is at Moggill.
KS	What is the – the impact at 9.5?
Carl	Ken, there was a problem for us – what'll happen if the Bremer gets up to 9.5 and we have significant rains, we won't be able to get water into the river so if we have the river up, but not rain we're probably not too badly off but, yeah, the combination of a high – high river level of 9.5 plus a lot of rain, then we'll have local flooding.
KS	Flash flooding. Yeah, okay.
PBad	Can I just add that while I've been speaking, Jimmy Stewart is here and he'll just comment on the effects of the last few hours of rain for Ipswich, which is now taking it up higher. So I'll ask Jimmy just to add that information.
JS	Yeah, g'day guys. I've just been running up – crunching some more numbers of the – the additional rainfall. We're probably looking at a level of above 11 metres at Ipswich, as we speak, but that's increasing all the time. The rainfall's still coming down.
ICC	Now what time – what time frame to get to 11?
JS	Early hours of Tuesday.
ICC	Okay.
JS	And that – that could change at again, both with further rainfall and the release strategy, if that alters this afternoon.
BD	Okay. Is there any comment now for Somerset while we're here, just to close the third council? Peter?
BB	No, I think we're right at this stage. The Lockyer is still rising here. Lowood Bend is just under it'll take out the main road if it rises about another couple of feet, but most of us are dry. The Wivenhoe's backed up and broke the Brisbane Valley Highway at Paddy Gully, it's gone over there so – but we're all dry.
BD	Thanks, Bob.
KS	Sorry, Barry, it's Ken here again. Just going back to Carl, what are the impacts then at 11, if we're looking at 11 tomorrow morning? Are we looking at evacuations, for example?
ICC	I'm not sure, Ken. I'll have to get my guys – they've been working on, sort of, a nine, 9.5 which we weren't too overly concerned about but...
KS	If we're looking at 11 – can you – can you give us a call separately?
BD	Yep.
ICC	Yeah, I'll get them to have a look at what the impact of – at 11.
KS	Okay, thank you.
JS	Excuse me. It's Jimmy Stewart at the BOM again. Could I just clarify that that 11 is likely to increase. The rainfall is still coming down so that's probably a minimum

	level.
ICC	Thanks, Jimmy.
ICC	I've written down '*11 plus*'.
BD	Okay. Thanks, Carl. I'm going to have an attempt, guys, to summarise some of the actions and if there's any further information, we'll close this because there's a series of things that need to happen fairly quickly. So summary of actions is – first cab is Peter Borrows is rapidly finishing off the release strategy and Peter, an estimated time when you'd submit that to everybody including the BOM to start their assessment?
PBor	Near enough, 3.00 – quarter to 3.
BD	Peter, I'm looking at you saying is there any quicker – BOM normally do a – a release at 3.30...
PBad	Yeah.
BD	...so is there – so I'm looking at Peter here and he's given me a half a nod so...
KS	Yeah, sorry, Barry...
BD	Yep.
KS	...if we – if we're going to keep to this timetable as – as Peter Baddiley suggested that they get information out by 3.30, it's absolutely essential – even if we're looking – Peter, I would've thought - at a release strategy that then is updated if necessary. There's going to have to be another interim release strategy to inform that – that – that announcement and then informing people about what the potential impacts are.
BD	So...
KS	Sorry, I – I just think – wait till that sort of time.
BD	Okay. So Peter Baddiley, how long do you need to run your model once you've got your input from SEQ?
PBad	Oh look, that – that only takes 15 minutes and we'll go through a round of – in that 15 minutes we'll go through a round of discussions firstly with Seqwater and then with Brisbane City Council. It then takes us about 20 minutes to run up a new warning for issue to the public, which will contain the new height. The 3.30pm update is what we've indicated that we will give a next warning at about 3.30pm but clearly if – if circumstances changing rapidly we're talking now about heights for Tuesday and Wednesday, I would just like to hit the – hit the media before too late so that we've got an update in place. Probably not later than about 4ish or 4.30 so we get – capture all the news channels and so on late in the day.
BD	So, Peter...
CJ	Colin here. I'd prefer it faster than that for us to actually get media here, 4.00 is, you know, starting to run pretty late for us to be able to do anything with it, in terms of community.
BD	Sounds like consensus to run earlier at, say, 3.30. So, Peter, how – when would you need Seqwater's information – be it interim now – to still meet the 3.30 deadline?
KS	It will take about 35 minutes to get the BOM work done.
BD	Yep.
KS	So I – I think we should finish this and, Peter, you need to get an estimate of

	getting it to – to the – the BOM, like, 2.30.
BD	Yeah, that's – we're sort of nodding at that, Ken, as well.
KS	Yep.
BD	So action 1, Peter Borrows and then BOM to – as soon as they can – do that model run and start that consultation process with – with all those involved in that consultation process. I had a second item here where BCC – Col, you were to share your flood maps with – with Ken and also Ipswich were to re-run their inundation sort of impacts and get that back to Ken as well, based on 11 plus metres.
Unknown male	Yep.
BD	And BCC had a mid-afternoon press conference. Col, I take it you were going to come out mid-afternoon?
CJ	Yeah, 'cause we actually really have to come back then at a suburb by suburb level, taking the action, so...
KS	Col, can we – can we talk so that I can get the – the Premier to talk to the Lord Mayor because clearly this will be, you know, quite significant, not only for Brisbane but also through Ipswich. And the timing – if this is Tuesday morning, then we've got to give people, you know, adequate notice.
BD	Yeah.
CJ	Yeah, they actually already have spoken but you and I should speak again.
KS	I – I just think - as a result of this information, I think the Lord Mayor and Premier were working on different assumptions...
CJ	Absolutely they were. They were working on the stuff that I said before.
KS	I know, Colin, and that's why I think we need to get this material and – to both the Lord Mayor and to the Premier so that they can now discuss this situation but also the – the other issue is with Mayor Pisasale.
CJ	That's right. Now I was going to actually offer – Carl, whether – I assume that you have your own stuff but we're happy to give you our map as well that shows our 4,000 cumecs and how it backs up the Bremer and what that means for you, but I assume you have your own stuff.
ICC	Yeah, I think my guys and your people are pretty much in contact with each other on this anyway, through that Floodwise...
CJ	Yeah.
ICC	...program.
CJ	Okay.
ICC	We've got all that.
KS	Okay. And look – Ken here again – I'll talk to both you, Carl and Colin, about any deployment of additional resources that you might – you might want so that – to get onto that quickly.
CJ	Yeah.
ICC	I'll come back to you again once I've got a better picture on what 11 plus metres looks like for us.
BD	Yeah.

CJ	Yeah.
KS	I'm just wondering – Jimmy, have you got any idea of what sort of plus we're talking about?
JS	Yeah, not at the moment, guys. It's – with the rain still coming down and there is an effect of – of backwater from the Brisbane River so the release strategy will affect that so, yeah, I wouldn't like to comment until we get that.
KS	Okay. Well...
PBad	Peter here. Offline with Ipswich City Council we can – as we normally do, we can run through some forecast rain scenarios – 11.7 is the threshold of major flood level at Ipswich and if I just sort of remind the group that in terms of response, Ipswich will be the first area of – of concern during the night and Brisbane follows, you know, some – some hours and more after that.
KS	Okay.
BD	Thanks, Peter.
KS	Barry, can I suggest we go off and do this work.
BD	Yes. Yes.
KS	'Cause obviously the – the release strategy is absolutely essential to get that into the system, if we're going to achieve this, you know, 3.30...
BD	Yes.
KS	...as the – the absolute deadline.
BD	Okay. And...
CJ	Colin here. Can I just ask – given a 11 metre plus for Ipswich, do you have an AHD spot height for me in Brisbane?
PBad	Hold on a minute. What you're asking really is - what's in the current model is a – is the old release strategy.
CJ	Yeah, that's okay. I just want...
PBad	For Brisbane now that takes us through to – let's just have a look – brings it up to around about the 2.4, 2.5 metres on Wednesday high tide early, but that – I must stress that that is with the...
CJ	I understand.
PBad	...strategy of a few hours ago so really it's probably can only go north from there.
KS	Yeah, let's get the updated information through.
BD	Yeah.
CJ	Yeah, that was more so that I can just check that we are calibrated, if you like, using the same stuff. And Ken, just for your early info, we – probably the best that we can work on is our flood mapping at 4,000 cumecs.
KS	Yep.
BD	Yes.
KS	Look, that - that'd be useful.
BD	Yes. Okay. We'll call this closed and we – if we need to get together again later this afternoon or early evening based on the information that comes out, we'll reorganise that meeting and get together again.

CJ	Excellent.
BD	Thanks, gentlemen.
PBad	Thank you.
KS	Thank you.
CJ	Thanks.
BD	Thank you.

Gina O'Driscoll

From: Paul Bird [pbird[redacted]
Sent: Monday, 10 January 2011 1:55 PM
To: SEQWGM Media; Reception; aroebuck[redacted]; greg.swain[redacted]; GSTUBBS[redacted]; Kathy Petrik; lisa.m.martin[redacted]; Paula Weston; tjacobs[redacted]; Barry Dennien; Dan Spiller; Scott Denner; Arminda Roberts; Bec Middlemiss; Michael Fiechtner; Mike Foster; Tara King
Cc: Michael Lyons; Geoff Stead
Subject: Release Update

As at 1.00 pm on Monday 10 January, the following applies:

SOMERSET DAM:
As a result of rainfall and inflows, water is being released into Wivenhoe through five sluice gates at about 95,000 megalitres per day and is likely to continue until Thursday 13 January. Areas around Kilcoy are likely to be impacted as a result of the rising dam levels.

WIVENHOE DAM:
Upstream levels are rising quickly as a result of significant heavy rainfall. The objective for dam operations will be to minimise the impact of urban flooding in areas downstream of the dam.

Gate Releases of around 170,000 megalitres a day are underway and are likely to increase due ongoing inflows and predicted rainfall and are to continue until at least Sunday 16 January.

Local Councils have been advised that as a result of Lockyer Creek flows, local runoff and Wivenhoe releases, Twin Bridges, Savages Crossing, Burtons Bridge, Kholo Bridge Colleges Crossing, Fernvale Bridge, and Mt Crosby Weir Bridge may be inundated until at least the weekend.

NORTH PINE DAM:
Five gates are open, releasing around 43,000 megalitres a day and will continue until at least Wednesday 12 January.

The local Council is being kept informed regarding Youngs Crossing.

LESLIE HARRISON DAM:

Gate releases are underway due to rainfall and inflows.

HINZE DAM:
A minor release of around 1200 megalitres a day is being made through the emergency gates. There is no public access to the spillway.

For detailed information on road crossing closures and other potential impacts, always contact your local council.

RECREATION UPDATE:

Both Wivenhoe and Somerset are closed to all recreational activities, and will remain so for some days.

The following recreation sites are closed –

- O'Sheas Crossing
- Hamon Cove
- Logan Inlet
- Captain Logan Camp

- Lumley Hill
- Spillway Common/ Atkinson's Crossing
- Cormorant Bay
- Branch Creek
- Billies Bay/Hays Landing
- The Spit
- Lake Somerset Holiday Park Kirkleagh

Numerous roads are cut including the highway at Kilcoy and Fernvale, and conditions are extremely dangerous.

This information will be updated during the afternoon of Monday 10 January.

Paul Bird
Senior Communications Advisor
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

[redacted] E pbird[redacted]
Level 3, 240 Margaret St, Brisbane City QLD 4000
PO Box 16146, City East QLD 4002
Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W37	Date of TSR release	10.1.2011	Time of TSR release	3pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge flood waters but keep impact downstream to minimum.	
Strategy	• All bridges are now inundated . • Ramp up to 2800cumecs which will give a flow in the lower Brisbane River of around 4,000cumecs	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows expected around 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Rainfall

Significant rainfall has fallen in the Wivenhoe Dam catchment over the last 3 hours, with falls exceeding 100mm. This rainfall will significantly increase inflows into the dam. A severe weather warning remains current for heavy rainfall in the dam catchment areas. The QPF issued by BOM at 10:00 estimates rainfalls for the 24 hours to 10:00 Tuesday as North Pine Dam (75mm to 150mm); Wivenhoe/Somerset Dam Catchments (50mm – 100mm). Potentially significant rain moving towards the dam catchments is currently evident on the BOM radar.

Somerset Dam (Full Supply Level 99.00 m AHD)

The dam level is 103.41m AHD and rising. Peak inflow to the dam is estimated to be about 4,200 m3/s. Five sluice gates are open releasing about 1,100m3/s (95,000ML/day) into Wivenhoe Dam. At this stage the dam lake level will reach about 103.5m AHD on Monday afternoon. Areas around Kilcoy will continue to be adversely affected.

Wivenhoe Dam (Full Supply Level 67.00 m AHD)

The dam level is 72.41m AHD and rising quickly. The rainfall experienced over the last 2 to 3 hours will result in significant further inflows into the dam and releases from the dam will need to be increased in accordance with Flood Mitigation procedures and to ensure that a fuse plug is not initiated. The initiation of a fuse plug will result in a rapid uncontrolled outflow from the dam of 2,000m3/s being added to the gate release outflow. Outflows into the Brisbane River from both Lockyer Creek and the Bremer River are also increasing.

Five radial gates are currently open at the dam releasing about 2,000m3/s into the Brisbane River and

this will need to be increased steadily to an outflow of 2,800m3/s over the next 9 hours (commencing at 1500). At this stage, the dam will reach about 73.8m AHD during Tuesday morning.

The objective for dam operations is currently to minimise the impact of urban flooding in areas downstream of the dam and to keep river flows in the lower Brisbane River below 4,000m3/s if possible. This is significantly less than the current estimated combined pre-dam peak inflow of 12,000m3/s. If further rainfall occurs, dam releases may need to be increased further and this may result in river flows in the lower Brisbane River approaching or exceeding 5,000m3/s.

Impacts downstream of Wivenhoe Dam

The projected Wivenhoe Dam releases combined with Lockyer Creek flows and local runoff will mean that all crossings downstream of Wivenhoe (Twin Bridges, Fernvale, Savages Crossing, Burtons Bridge, Kholo Bridge, Mt Crosby Weir and Colleges Crossing) will be adversely impacted until at least Sunday 16 January in varying degrees.

Water levels in the lower Brisbane River will be impacted by the combined flows of Lockyer Creek, Bremer River, local runoff and releases from Wivenhoe Dam.

Outlook

Heavy rainfall continues throughout South East Queensland and the situation could deteriorate rapidly over the next 24 hours. The flood operation centre will continue to monitor the situation and provide every six hours until the situation stabilizes.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

Litsupport Brisbane

From: Jade Simmons
Sent: Monday, 10 January 2011 3:11 PM
To: Barry Dennien; Dan Spiller; Scott Denner; Michael Lyons; SEQWGM Communications Staff
Subject: FW: FOC Situation Report at 12:00 on Monday 10 January 2011

For your information, please find below the FOC Situation report sent at 3.00 pm today.

Kindest regards

Jade Simmons
Senior Correspondence Officer
SEQ Water Grid Communications Unit
SEQ Water Grid Manager
[redacted]
Email: jade.simmons[redacted]
Visit: Level 15, 53 Albert Street Brisbane
Post: PO Box 16205, City East QLD 4002

From: Paul Bird [mailto:pbird[redacted]]
Sent: Monday, 10 January 2011 3:05 PM
To: Jade Simmons
Subject: FW: FOC Situation Report at 12:00 on Monday 10 January 2011

From: Duty Engineer [mailto:dutyseq[redacted]
Sent: Monday, 10 January 2011 14:58
To: Duty Seq; Ruffini24[redacted]; David Roberts; flood.qld[redacted]; Mike Foster; Paul Bird; Peter Allen; Rob Drury; Rohan Thorogood; Ken.Price[redacted] kim.hang[redacted] Al Navaruk; Bill Stephens; David Pokarier; John West; Louw Van Blerk; Mark Tan; Neville Ablitt; John.Ruffini[redacted]; John Tibaldi; Rob.ayre[redacted]; Terry Malone; Brett Schultz; Glenn Patterson; Malcolm Lane; Murray Dunstan; Rob Gorian; Agg Dagan; Doug Grigg; Graham Keegan; Graham Francis; Jayam Tennakoon; Matthew O'Reilly
Cc: Andy Bickerton; Deb Chandler; Mailbox; Tony Trace; Chris Lavin; Craig Logan; Don Carroll; Evan Caswell; James Charalambous; Ken Morris; Robert McGlinn; Santina Pennisi; Peter Borrows
Subject: RE: FOC Situation Report at 12:00 on Monday 10 January 2011

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Significant rainfall has fallen in the Wivenhoe Dam catchment over the last 3 hours, with falls exceeding 100mm. This rainfall will significantly increase inflows into the dam. A severe weather warning remains current for heavy rainfall in the dam catchment areas. The QPF issued by BOM at 10:00 estimates rainfalls for the 24 hours to 10:00 Tuesday as North Pine Dam (75mm to 150mm); Wivenhoe/Somerset Dam Catchments (50mm – 100mm). Potentially significant rain moving towards the dam catchments is currently evident on the BOM radar.

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Wivenhoe Dam (Full Supply Level 67.00 m AHD)

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Five radial gates are currently open at the dam releasing about 2,000m3/s into the Brisbane River and this will need to be increased steadily to an outflow of 2,800m3/s over the next 9 hours (commencing at 1500). At this stage, the dam will reach about 73.8m AHD during Tuesday morning.

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Outlook

Heavy rainfall continues throughout South East Queensland and the situation could deteriorate rapidly over the next 24 hours. The flood operation centre will continue to monitor the situation and provide every six hours until the situation stabilizes.

Terry Malone
Duty Engineer
Flood Operations Centre

[redacted]

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this email is not waived, lost or destroyed by reasons of mistaken delivery to you. If you have received this email in error please contact the sender immediately and delete the material from your email system. QLD Bulk Water Supply Authority ABN75450239876 (Trading as Seqwater).

Litsupport Brisbane

From: Rob Drury [rdrury[redacted]
Sent: Monday, 10 January 2011 3:16 PM
To: Rob Drury; Dan Spiller; Paul Bird; Stan Stevenson; Peter Borrows; Peter.Allen[redacted]
Subject: RE: Technical Report W37
Attachments: Technical Situation Report W37.docx

Report W37 attached.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Monday, 10 January 2011 8:06 AM
To: Rob Drury; 'Daniel.Spiller[redacted]; Paul Bird; Stan Stevenson; Peter Borrows; 'Peter.Allen[redacted]
Subject: RE: Technical Report W36

Please disregard the previous report, it was based on older information, this is the latest update.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

From: Rob Drury
Sent: Monday, 10 January 2011 7:53 AM
To: Rob Drury; 'Daniel.Spiller[redacted]; 'Barry.Dennien[redacted]; 'Michael.Lyons[redacted]; 'media[redacted]'; 'debbie.best[redacted]; 'Scott.Denner[redacted]; Paul Bird; Stan Stevenson; Peter Borrows; 'Peter.Allen[redacted]
Subject: RE: Technical Report W35

Attached report W35.

Rob

Robert Drury
Dam Operations Manager
Water Delivery
Queensland Bulk Water Supply Authority *trading as* Seqwater

seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]
Wivenhoe Dam, Brisbane Valley Highway, via Fernvale Q4306 Australia
PO Box 37, Fernvale QLD 4306
Website | www.seqwater.com.au

TECHNICAL SITUATION REPORT

TSR Number	W37	Date of TSR release	10.1.2011	Time of TSR release	3pm

Seqwater status of inflows and dam operations

Current status but could change based on inflows or rainfall.

Current objectives	• Continue increasing releases to discharge flood waters but keep impact downstream to minimum.	
Strategy	• All bridges are now inundated . • Ramp up to 2800cumecs which will give a flow in the lower Brisbane River of around 4,000cumecs	
Key considerations	Storage levels:	Above FSL
	Inflows:	Inflows expected around 1,500,000ML which is close to 1974 event.
	Rainfall:	Continuing
	Lockyer/Bremer:	Monitoring their inflows
	Brisbane River:	Impact as below.

Rainfall

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Water levels in the lower Brisbane River will be impacted by the combined flows of Lockyer Creek, Bremer River, local runoff and releases from Wivenhoe Dam.

Outlook

Heavy rainfall continues throughout South East Queensland and the situation could deteriorate rapidly over the next 24 hours. The flood operation centre will continue to monitor the situation and provide every six hours until the situation stabilizes.

Seqwater Technical Officer name	Robert Drury
Seqwater Technical Officer position title	Dam Operations Manager
	[redacted]

BoM assessment

(consisting of references to latest Flood Warning for the Brisbane River and other relevant Bureau forecasts and warnings (e.g. weather/rain forecasts, Tropical Cyclone Warning etc) and other updates/comments if needed)

BoM has been advised.

BoM Technical Officer name	Peter Baddiley
BoM Technical Officer position title	
BoM Technical Officer contact details	flood.qld[redacted]

Brisbane City Council (BCC) assessment

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

BCC Technical Officer name	Chris Lavin
BCC Technical Officer position title	Disaster Operations Manager
BCC Technical Officer contact details	[redacted]

Ipswich City Council (ICC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

ICC Technical Officer name	Tony Trace
ICC Technical Officer position title	Local Disaster Response Coordinator
ICC Technical Officer contact details	[redacted]

Somerset Regional Council (SRC) assessment (if required)

(to include predicted local inundation areas and depths of inundation based on the information)

Council has been advised of the current status.

SRC Technical Officer name	Tony Jacobs
SRC Technical Officer position title	Local Disaster Response Coordinator
SRC Technical Officer contact details	[redacted]

Collated and distributed by (Agency)

Contact Officer signature	
Contact Officer name	Rob Drury
Contact Officer position title	Dam Operations Manager

Next TSR due	Date	11.1.2011	Time		or Event	Change in strategy

D334

Gina O'Driscoll

From: Michael Lyons
Sent: Monday, 10 January 2011 3:21 PM
To: Barry Dennien
Subject: Wivenhoe now at 153.9%

Michael Lyons
Director
SEQ Water Grid Communications Unit
[redacted]
Email: michael.lyons[redacted]
Visit: Level 15, 53 Albert Street Brisbane
Post: PO Box 16205, City East QLD 4002

From: Dan Spiller <Daniel.Spiller[redacted]>
Sent: Monday, January 10, 2011 3:29 PM
To: Barry Dennien <Barry.Dennien[redacted]>; Michael Lyons <Michael.Lyons[redacted]>; SEQWGM Media <media[redacted]>
Subject: Fwd: Technical Report W37
Attach: Seqwater_No-Lifeguards-Here_email_strap.png; ATT00001.htm; cidimage001.png@01CA24E1.BDB90020; ATT00002.htm; Seqwater_No-Lifeguards-Here_email_strap.png; ATT00003.htm; cidimage001.png@01CA24E1.BDB90020; ATT00004.htm; Seqwater_No-Lifeguards-Here_email_strap.png; ATT00005.htm; cidimage001.png@01CA24E1.BDB90020; ATT00006.htm; Technical Situation Report W37.docx; ATT00007.htm

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Begin forwarded message:

From: Rob Drury <rdrury[redacted]>
Date: 10 January 2011 3:15:37 PM GMT+10:00
To: Rob Drury <rdrury[redacted]>, Dan Spiller <Daniel.Spiller[redacted]>, Paul Bird <pbird[redacted]>, Stan Stevenson <sstevenson[redacted]>, Peter Borrows <pborrows[redacted]>, "Peter.Allen[redacted]" <Peter.Allen[redacted]>
Subject: RE: Technical Report W37

Report W37 attached.

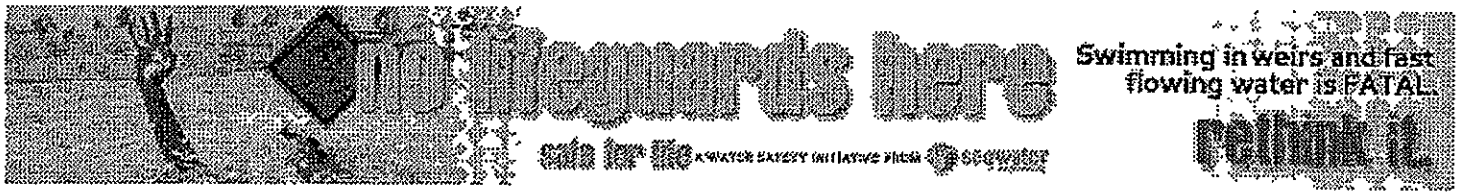
Rob

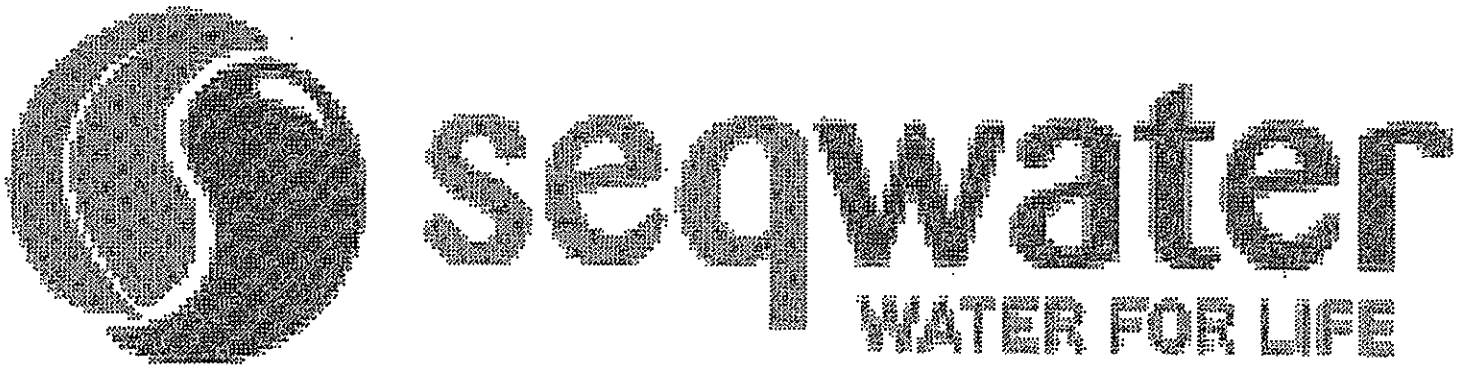
Robert Drury

Dam Operations Manager

Water Delivery

Queensland Bulk Water Supply Authority *trading as* Seqwater


Swimming in weirs and fast flowing water is FATAL.


seqwater
WATER FOR LIFE

[redacted] | E rdrury[redacted]

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PO Box 37, Fernvale QLD 4306

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From: Rob Drury
Sent: Monday, 10 January 2011 8:06 AM
To: Rob Drury; 'Daniel.Spiller[redacted]'; Paul Bird; Stan Stevenson; Peter Borrows; 'Peter.Allen[redacted]
Subject: RE: Technical Report W36

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Rob

Robert Drury

Dam Operations Manager

Water Delivery

Queensland Bulk Water Supply Authority *trading as* Seqwater