

Subject: Fwd: Manual operation of the RRD #2
Date: Friday, 1 February 2019 at 8:21:48 pm Australian Eastern Standard Time
From: PURTILL James
To: Anthony Lynham, Zanatta Simon, Dave Stewart
Attachments: image045478.png, image814706.png, image827051.png, image772493.png, image001.jpg, image002.jpg, image003.jpg, image004.jpg, image005.jpg, image006.jpg, image001.jpg, image002.jpg, image003.jpg, image004.jpg, image005.jpg, image006.jpg, image008.png

As per recent SMS

Sent from my iPhone

Begin forwarded message:

From: Colin Bendall <[redacted]@sunwater.com.au>
Date: 1 February 2019 at 8:10:27 pm AEST
To: Linda Dobe <[redacted]@dnrme.qld.gov.au>, "James Purtil" <[redacted]@dnrme.qld.gov.au>
<[redacted]@dnrme.qld.gov.au>
Subject: FW: Manual operation of the RRD #2

Linda, James

See below, wanting to ensure QDMC has visibility of the latest request to operate the dam manually and move to 3.25 metre gate opening. I have not advised any other members of QDMC.

We are complying with the request.

This may have come through the LDMG however just insuring all are aware.

Regards

Colin

Colin Bendall
EGM Operations and Services



P [redacted]
M [redacted]
E [redacted]
sunwater.com.au

Green Square
North, Level 9, 515
St Pauls Terrace,
Fortitude Valley,
Queensland 4006



Delivering water for prosperity

From: Scott Moorhead [mailto:[redacted]@townsville.qld.gov.au]
Sent: Friday, 1 February 2019 7:57 PM
To: Robert McCaig <[redacted]@townsville.qld.gov.au>; David Hayes <[redacted]@sunwater.com.au>
Cc: Travis Richards <[redacted]@sunwater.com.au>; James Stuart <[redacted]@sunwater.com.au>; Colin Bendall <[redacted]>;

Stephen Martin <[redacted]@townsville.qld.gov.au>; Wayne Preedy
<[redacted]@townsville.qld.gov.au>
Subject: RE: Manual operation of the RRD #2

All,

The latest predictions from BOM, sun water etc concur that An approximate level of RL 42.73 will be reached and 1208 m3/s. The impacts downstream have been assessed.

TCC has therefore decided to manually operate the dam and increase the gate levels to 3.25 and a flow of 870 m3/s as soon as possible.

All parties such as police etc have been informed and EA/alerts and evacuation preparations have been made.

Therefore as per previous emails TCC needs Sun water to raise the gate manually to 3.25m for all three gates. The downstream effects of the previous gate raises were minimal. 1 hour between each step is not needed.

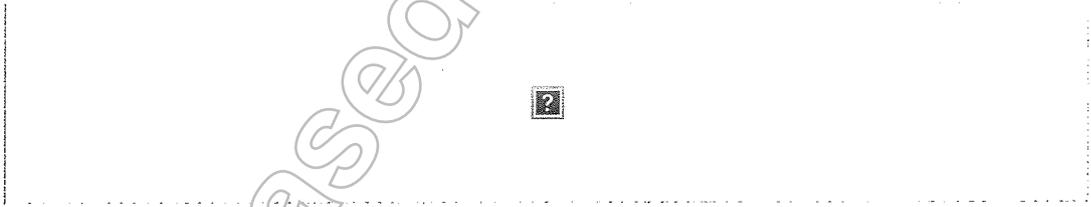
Rob McCaig will be the point of contact for any detail.

Scott Moorhead

General Manager

Townsville Water and Waste 'Travis Richards' <[redacted]@sunwater.com.au>;
James Stuart <[redacted]@sunwater.com.au>; Colin Bendall
<[redacted]@sunwater.com.au>; Stephen Martin
<[redacted]@townsville.qld.gov.au>; Wayne Preedy
<[redacted]@townsville.qld.gov.au>

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From: Scott Moorhead

Sent: Friday, 1 February 2019 10:12 AM

To: Robert McCaig <[redacted]@townsville.qld.gov.au>; 'David Hayes'
<[redacted]@sunwater.com.au>

Cc: 'Travis Richards' <[redacted]@sunwater.com.au>; James Stuart
<[redacted]@sunwater.com.au>; Colin Bendall <[redacted]@sunwater.com.au>;
Stephen Martin <[redacted]@townsville.qld.gov.au>; Wayne Preedy

[redacted]@townsville.qld.gov.au>

Subject: Manual operation of the RRD

All,

The latest prediction from Sun water in combination with data from BOM have the 25th percentile being 716 m3/sec occurring on the 3/2/19. The 10th percentile is the concern with the flow in excess of 1877 m3/sec. This requires the evacuation of 43 0000 people.

The council has therefore decided to manually operate the dam to all gates open at 2.75 m or 706 m3/sec which is just below the predicted 25th percentile. This will moderate any effect of the extreme events.

The downstream consequences will be the same as the 25th percentile and will ensure that the protection of the community is manageable. The LDMG has been notified and all emergency personnel have put actions in place.

TCC therefore needs Sunwater to operate the gates manually to 2.75m for all three gates. The settings will return to the EAP if the upstream level/flow is in excess of the setting.

If less water is received than predicted it is expected that Sunwater will notify TCC and agree on a enacting the EAP closing process.

This will be reviewed each afternoon and morning when updated predictions and weather information is available

Scott Moorhead

General Manager

Townsville Water and Waste 'Travis Richards' [redacted]@sunwater.com.au>;

James Stuart <[redacted]@sunwater.com.au>; Colin Bendall

[redacted]@sunwater.com.au>; Stephen Martin

[redacted]@townsville.qld.gov.au>; Wayne Preedy

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From: PURTILL James <[redacted]@dnrme.qld.gov.au>

Sent: Thursday, 31 January 2019 5:43 PM
To: Mike Chiodo <[redacted]@townsville.qld.gov.au>
Cc: DOBE Linda <[redacted]@dnrme.qld.gov.au>
Subject: Ross River Dam

Mike

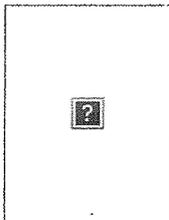
I refer to our discussion earlier this afternoon about the request from the Townsville Local Disaster Management Group to Townsville City Council and Sunwater to operate the Ross River Dam gates manually and earlier than as stated in the emergency action plan for Ross River Dam, due to an impending forecast from the Bureau of Meteorology.

It is the department's position that as the dam owner, Townsville City Council is the decision maker regarding the management of Ross River Dam. Should TCC wish to operate outside the parameters of its EAP for Ross River Dam, the department considers that this is a matter for TCC to decide.

While the Water Supply (Safety and Reliability) Act 2008 requires TCC to prepare an EAP, there is no express obligation in the Act requiring TCC to comply with its EAP at all times. This is because TCC, as the dam owner, may need to make decisions during an event which go beyond that which is already addressed.

Given TCC's engineering and planning capabilities and local knowledge, TCC is well positioned to make those decisions. In addition, Sunwater has advised me that it will provide technical support to TCC as needed.

Kind regards



James Purtil
Director-General
Department of Natural Resources, Mines
and Energy

[redacted] E

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SUMMARY OF KEY COMMUNICATIONS BETWEEN SUNWATER AND TCC RELATING TO ROSS RIVER DAM GATE OPERATIONS

Date	Contact	Time Received	Time Responded	Gate Operation Status	Message
30/01/2019	David Hayes		11:40am	Auto	David Hayes emails TCC email group requesting confirmation of TCC decision maker (being the Principal's Representative under the contract) in the event of a spill at RRD
30/01/2019	Scott Moorhead	12:23pm		Auto	Scott Moorhead advised he was the decision maker (being the Principal's Representative under the contract) for TCC
31/01/2019	Townsville LDMG	10:00am		Auto	RRD Storage supervisor attended LDMG meeting as SunWater representative (Operations Manager and General Manager) unable to attend on site due to roads being cut
31/01/2019	David Hayes		12:28pm	Auto	Email to SunWater operators at RRD that gate operations were to remain as per EAP unless advised to change by SunWater Management. This was sent to ensure no mix up in communications based on Sunwater and TCC staff on site at the dam before a formal direction was issued by TCC decision maker Scott Moorhead
31/01/2019	Scott Moorhead	1:14pm	1:17pm	Auto	TCC Decision maker requested SunWater Dam Operator Kym Brookes to relay TCC's intended manual gate operations to David Hayes (SW) and Travis Richards (SW) as TCC wanted a decision made quickly as TCC were discussing evacuation procedures. David Hayes responded at 1:17pm confirming that TCC need to send direction to SunWater directly.
31/01/2019	Local Disaster Coord	1:19pm	1:51pm	Auto	Received written request for assistance from TLDMG. The TLDMG requested TCC and SunWater to open the dam gates manually and earlier than as stated in the EAP. Request was from TLDMG and not TCC and therefore at 1:51pm Dave Hayes sent request for to TCC Decision Maker to sign the request and confirm that was TCC instruction
31/01/2019	Dave Hayes	1:55pm		Auto	Dave Hayes advised he had spoken to Scott Moorhead (TCC) and Scott would send through a formal TCC direction within 30 minutes.
31/01/2019	Scott Moorhead	2:35pm	2:53pm	Auto	Formal direction received from TCC decision maker instructing Sunwater to operate the dam gates manually. Some indication of gate heights and flow rates required but request did not confirm when manual operation was to commence. Verbal conversation with Scott Moorhead confirmed TCC wanted this to start as soon as possible. Rob McCalg (TCC) was to instruct dam operators on site. At 2:53pm Sunwater dam operators had verbal instruction confirmed in writing by Dave Hayes that manual gate operation could commence under strict direction of TCC on site rep (Rob McCalg).
31/01/2019	Scott Moorhead	3:14pm	3:24pm	Auto	Scott Moorhead advised by email for manual gate operation to be put on hold and direction to be rescinded due to breakdown in TCC approvals process. Scott advised that the gate was about to move anyway in auto as per EAP and that TCC would observe downstream impact and then advise on new timing to commence manual operation after the 5pm LDMG. David Hayes responded confirming direction to hold on manual operation was received.
31/01/2019	Dave Hayes	7:08pm		Auto	Dave Hayes sent email advising that Rob McCalg had advised Kym Brookes (SW Dam Operator) that gate operations were to remain in auto as per EAP until Friday morning when things would be reassessed by TCC.
31/01/2019	Dave Hayes	7:21pm		Auto	Dave Hayes sent email confirming he had now spoken to Rob McCalg and confirmed his instruction was to remain in auto operation overnight.
31/01/2019	Scott Moorhead	7:40pm		Auto	Received email from Scott Moorhead confirming decision to move to manual operation put on hold by TCC and would be reassessed early Friday morning.
1/02/2019	Townsville LDMG	9:00am		Auto	Verbal advice to LDMG that post meeting TCC would instruct Sunwater to commence pre-emptive releases through manual gate operation to mitigate the impacts of downstream flooding and to make room in the dam for forecast rain in catchment.
1/02/2019	Scott Moorhead	10:12am		Auto	Received formal request from TCC to operate gates in manual to 2.75m. Email did not specify a time to commence manual operation. This email and the one below crossed over and therefore Scott provided additional email covering off on specific contract clauses as per email from Sunwater.
1/02/2019	Travis Richards	10:23am		Auto	Email sent to Scott Moorhead acknowledging verbal request for manual releases from the dam. Email specified the specific clauses under the contract that TCC should instruct Sunwater under to initiate manual operation and pre-emptive releases. Also requested direction for Sunwater to operate manually under specific operational procedures.
1/02/2019	Scott Moorhead	10:39am	11:01am	Auto	Follow up email from TCC covering off on specific sections of contract and providing approval to operate manually under DOMM 001. Email also confirmed that TCC modeller was confirming consistent advice between BOM and Sunwater data. Travis Richards confirmed by response email and phone call that Colin Bendall (SW) would approve as Sunwater executive decision maker and manual operation would commence immediately on approval.
1/02/2019	Travis Richards	11:01am		Auto	Travis Richards email Scott Moorhead to advise Sunwater was ready to initiate pre-emptive releases as per TCC direction however Colin Bendall had just advised the ODMC has requested pre-emptive releases be delayed until TCC Mayor and TCC CEO provide confirmation to ODMC that downstream communities have been adequately advised. TCC Mayor agreed to hold off on pre-emptive releases until confirmed downstream community had been advised and TCC CEO would provide further direction to Sunwater.
1/02/2019	Scott Moorhead	11:08am	11:10am	Auto	Scott Moorhead confirmed that all parties had been informed and communications were underway. Directed manual operation to commence at 11:30am. At 11:10 am Travis Richards responded confirming Sunwater would move to manual operation at 11:30am in accordance with the direction from TCC.
1/02/2019	Travis Richards	11:16am		Auto	Travis Richards sent email to SunWater and TCC Dam operators and representatives confirming that we were to move to manual operation as per TCC direction at 11:30am.
1/02/2019	David Hayes	11:53am		Manual	Dave Hayes emailed confirming that dam gate operations moved to manual operation at 11:52am. All three gates opened to 2.5m
1/02/2019	David Hayes	2:46pm	3:15pm	Manual	Dave Hayes emailed Rob McCalg requesting TCC confirm their next set of directions once the initial instructions are completed. This was done to ensure Sunwater was prepared to enact TCC instructions quickly. At 3:15pm Scott Moorhead replied advising that if the upstream height (lake level) reached the height to trigger the current automatic settings then operation was to revert to EAP.
1/02/2019	David Hayes	3:26pm		Manual	Dave Hayes emailed Scott Moorhead to confirm exact lake height that auto operation as per EAP would be reinstated.
1/02/2019	David Hayes	3:37pm		Manual	Dave Hayes emailed Sunwater and TCC dam operators confirming the above directive. As per directive from Scott Moorhead above, once RRD level reaches 41.5m please revert gate control back to AUTO to revert back to EAP sequence. Any further manual operations are to be approved by TCC as a directive prior to commencement.
1/02/2019	David Hayes	5:09pm		Auto	Once the RRD lake level reached 41.5m, Sunwater reverted gate control back to AUTO as per TCC's direction and David Hayes emailed TCC and Sunwater representatives to confirm.
1/02/2019	Scott Moorhead	7:57pm	8:01pm & 8:05pm	Manual	TCC sent through a direction to Sunwater to recommence manual gate operation and raise all three gates to 3.25m. At 8:05pm Dam Operators advised to commence manual gate operation by email and phone call from Dave Hayes in accordance with TCC's direction
1/02/2019	Dave Hayes	8:10pm		Manual	Dave Hayes emailed Scott Moorhead and Rob McCalg requesting a schedule of potential raises so Sunwater could be prepared for next steps for potential gate raises which may be directed by TCC.
2/02/2019	Scott Moorhead	5:06pm	5:11pm & 5:27pm	Manual	Direction from Scott Moorhead to raise all three gates to 3.75m. At 5:11pm Sunwater requested Rob McCalg provide detail on directed gate opening sequence. At 5:27pm Travis Richards confirmed manual gate operations opening sequence verbally with Rob McCalg and sent email confirming the directive to dam operators, Rob McCalg, Dave Hayes, Colin Bendall and Incident Control. Travis instructed operators to proceed with gate opening sequence as per TCC directive.
2/02/2019	Rob McCalg	8:49pm	8:52pm	Manual	Email from Rob McCalg to Scott Moorhead and Travis Richards that all gates were at 3.75m and requesting confirmation from Scott Moorhead at what lake level the gates would be returned to auto operation. At 8:52pm Scott Moorhead confirmed by response email the lake levels.
3/02/2019	Kym Brookes	12:24pm		Auto	Kym Brookes confirmed that RRD gates had reverted into auto operation as per TCC direction.
3/02/2019	Dave Hayes	2:23pm		Auto	Dave Hayes sent email to SunWater reps advising that gate 2 had opened to 11.5m as per auto operating sequence
4/02/2019	Scott Moorhead	11:40am	11:50am and 11:52am	Auto	Email from TCC directing Sunwater to revert the gates to manual mode. At 11:50am Dave Hayes sent email to Sunwater dam operators instructing them to move gates to manual mode as per TCC direction. At 11:52am Dave Hayes set an email to Scott Moorhead confirming height of lake and gate height at time of TCC direction.
4/02/2019	Scott Moorhead	12:05pm		Manual	Scott Moorhead resent direction for gates to be revert to manual mode as TCC had been having communications problems and he wasn't sure Sunwater had received the direction.
4/02/2019	Scott Moorhead	6:54pm	7:27pm	Manual	Direction from TCC to revert to automatic operation of gates at 9pm on 4/2/19. At 7:27pm Dave Hayes sent email to Sunwater dam operators instructing them to revert to auto operations at 9pm as per TCC direction. Scott Moorhead and other TCC reps included in email.
5/02/2019	Inga Davis	11:50am	11:53am	Auto	Direction from Inga Davis (TCC) on behalf of Scott Moorhead for Sunwater to revert to manual operation. Travis Richards contacted Scott Moorhead via phone to confirm direction from TCC.
5/02/2019	Travis Richards	12:09pm	12:15pm	Auto	Travis Richards sent email to Inga Davis outlining details of Scott Moorhead's verbal directive to Travis during phone call to revert the gates to manual operation effective immediately. At 12:15pm Inga Davis replied to Travis Richards confirming that the written details aligned with TCC's direction.
5/02/2019	Travis Richards	12:21pm		Manual	Travis Richards sent email to Sunwater dam operators confirming the change to manual operation of the gates as per TCC direction.
6/02/2019	Scott Moorhead	4:02am		Manual	Travis Richards redyed a heads up email and text from Scott Moorhead requesting Sunwater commence preparations for safe transition back to auto gate operation mode.
6/02/2019	Travis Richards	9:48am & 10:03am		Manual	Sunwater sent email to TCC outlining recommended methodology for the physical procedure (as distinct from recommendation on the timing in relation to spillway flows) from returning dam gates to auto mode - should TCC direct Sunwater to do so.
6/02/2019	Scott Moorhead	12:15pm		Manual	Scott Moorhead phoned Travis Richards and advised that due to localised rain impacting floodwaters in suburbs and inflows at the dam TCC would not be directing SunWater to revert to automatic gate operation until 7pm 6/2/19. Scott verbally confirmed that TCC accepted Sunwater's recommended methodology for the physical procedure to return the dam gates to automatic mode.
6/02/2019	Travis Richards	4:28pm		Manual	Following previous verbal discussion above, Travis Richards emailed Scott Moorhead requesting written direction from TCC to: <ul style="list-style-type: none"> Confirm the exact time automatic gate operation is to commence; Confirm agreement to the methodology provided for physical procedure to revert the gates to automatic operation or propose any changes or an alternative methodology.

**Note that the above log is not a comprehensive and exhaustive list of all communications. This log is a preliminary record requiring further verification and may be subject to change