

Date: Tuesday, 18 August 2020

Time: 9am to 10.30am – FINAC meeting to follow for those involved

Location: Anglican Church Hall, Ruby Street Emerald

Attendees:

- Members of the IAC: Robert Ingram, Neville Brownlie, Nigel Burnett, Matthew Barnes, Les Fluerty, Neek Morawitz and Dion Roberts
- Fairbairn Irrigation Network (FIN) representatives: Emma McCullagh, Hamish Millar, Peter Galea, Ross Burnett, Anne Marie O'Callaghan and Geoff Beard
- Mining representative: Madeline Bourke, Kelly Smith (Curragh/Coronado)
- Urban representatives: Peter Manning (CHRC)
- Sunwater representatives: Jason Smith and Manesh Magan
- CHCGIA representative: Aaron Kiely

Apologies: Neal Dale, Scott Collinge

Minutes:

Agenda items		
Item no.	item	Presenter
1	Welcome	Jason Smith
2	<p>General business</p> <ul style="list-style-type: none">• Fairbairn Dam Spillway Project Update The \$160,000 plus project is \$21,000,000 million under budget and due for completion mid-September.• Fairbairn Dam storage level and outlook Currently sitting at 10.9%, the level equal to that of December last year. Jason presented tables relating to projected forecast usage for 2020/2021 which indicate low level pumping will be required by January 2021. The current strategy for Bull Ring is to initially install a pumping arrangement directly in the discharge pipe for January with continued dry weather requiring pumping from the dam over/through a bulkhead in February. Jason will continue to seek feedback and advice on predicated usage and reassess requirements on an ongoing basis.	Jason Smith and Manesh Magan

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Agenda items

The question was raised as to Sunwater's ability to access Government assistance to funding low level pumping? Jason will respond when possible.

Customers expressed concerns regarding the lateness of the carryover announcement. Jason asked what customers want to see. Feedback/key learnings was gathered to supply to the relevant stakeholders for the 2020/2021 end of water year.

Meter readings being provided late was referenced as the main reason the process takes so long. Until all water is accounted for, the final numbers cannot be determined allowing the carryover announcement to be made.

- **Rainfall Outlook**

Weather outlook is showing a significant improvement. Above 80% chance of above average rainfall. Sunwater is estimating the catchment needs 135mm event to fill the dam.

- **Low Level Pumping**

A copy of the PowerPoint presentation is attached.

- **Framework for Customer forums**

Manesh explained the approach Sunwater are wishing to roll out to provide customers with the opportunity to provide feedback on upcoming operational initiatives. As an example, he suggested a customer forum to discuss the current carryover rules. The groups will be open to everyone with mid-September targeted as the commencement date. Groups will be convened in both Emerald and Blackwater.

Anne Maree O'Callaghan commented that she was sure a forum will result in a favourable outcome for all stakeholders.

Customers sought assurance initiatives would be fully actioned or it would turn into a waste of time.

It was also expressed the final position should be reviewed by the IAC before moving to DNRME.

Agenda items		
	<ul style="list-style-type: none"> • SunWater Customer App <p>Manesh gave a brief overview of the Sunwater Customer App. The App supports:</p> <ul style="list-style-type: none"> • Phone water ordering (subject to operational capacity, terms and conditions) • Hands on ability to manage water accounts • Replicates Sunwater Online • Links to your existing account information • You can nominate a favourite offtake <ul style="list-style-type: none"> • Four key focus areas: <ul style="list-style-type: none"> • Accounts, • Water order, • Temp transfers and • Meter reads. <p>It has been trialled at Milawa and has supporting resources to guide customers through the available transactions. Should customers need further assistance with the new app or Sunwater Online, they can contact customer support on 13 15 89, Monday-Friday 8.30am-4.30pm</p>	
3	<p>New Business</p> <ul style="list-style-type: none"> • Any other business <p>Bedford Weir questions were raised regarding why we have not had the bag or similar reinstated.</p> <p>How is the forum to be run? Email asking for anyone who would like to attend. Three opportunities to attend will be offered in Emerald and Blackwater.</p> <p>Water usage for the river for last year. River efficiency. 82 – 83 %. 14 meters ordered. There may be limitations with capacity if the river needs more than 240 ML/day.</p>	Jason Smith

Chair:	Robert Ingram
Minutes:	Naomi Nichol
Date:	29 September 2020

Encl Nogoa Mackenzie Water Supply Scheme IAC PowerPoint Presentation

address: Green Square North, Level 9, 515 St Pauls Terrace,
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The Sunwater logo is positioned in the top left corner. It features the word "sunwater" in a sans-serif font, with "sun" in white and "water" in a vibrant blue. The background of the entire slide is a close-up, artistic photograph of water with a bokeh effect, showing soft, out-of-focus light spots in shades of blue and white.

sunwater

Nogoa Mackenzie Water Supply Scheme

IAC meeting 18th August 2020

Overview

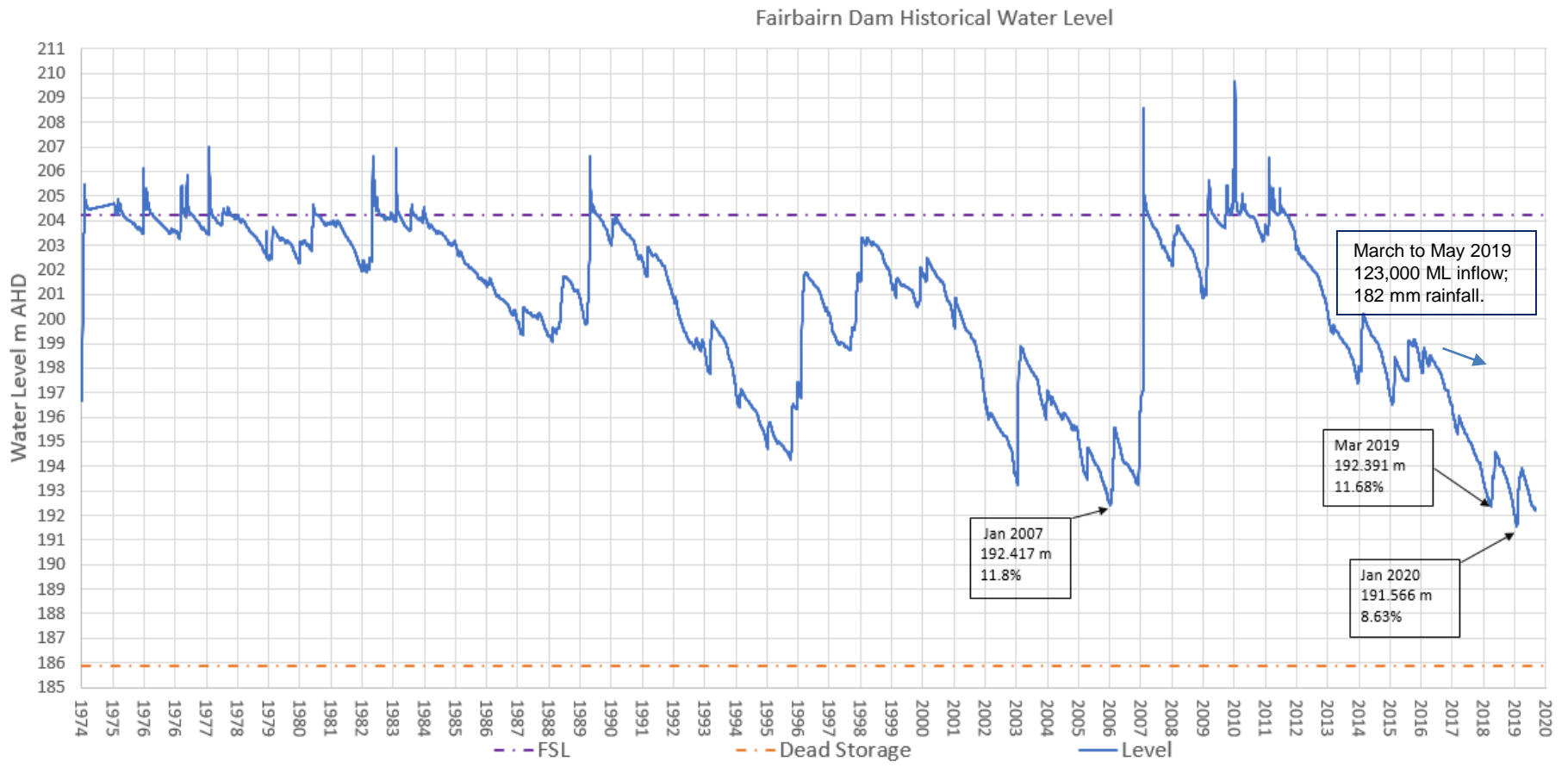
- Fairbairn Dam Spillway Project Update
- Fairbairn Dam Storage Level Outlook
- Water Usage and Forecast
- Rainfall Outlook
- Asset Delivery Capabilities
- Forecast for Low Level Pumping
- Framework for Customer Forums – comms to be sent out by 30th August
- Sunwater Customer App

Fairbairn Dam Historical Water Level

Previous historical low of 11.8% 192.417 (January 2007).

Recent low of 11.68% 192.391 (March 2019).

This year low of 8.63% 191.566 (January 2020)



Fairbairn Dam Recent Performance

Fairbairn Dam Performance 2020

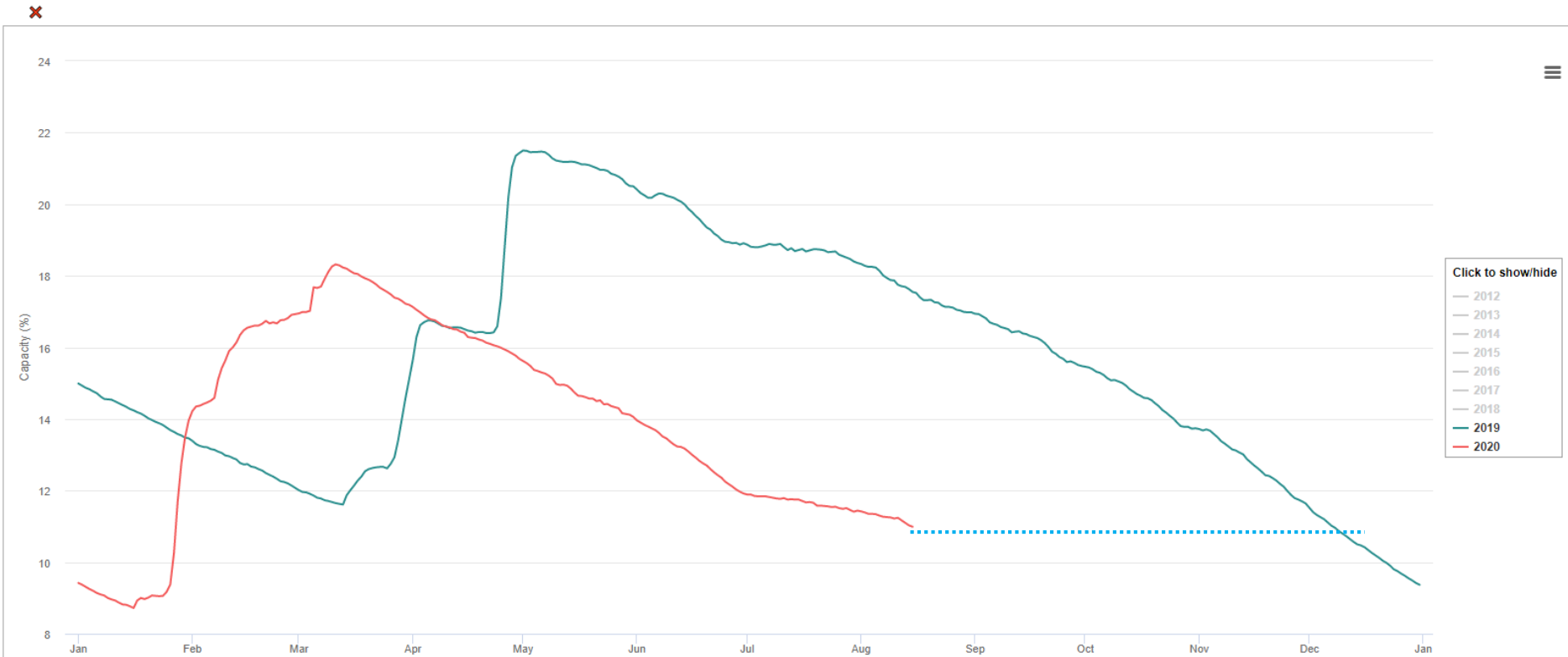
Monday 17th August 2020 10.98% capacity (192.2 m AHD) 142,645 ML.

Currently the dam is at the same level as 11th December 2019

Fairbairn Dam

Station Number: 130216A
Station Owner: SunWater

Overlaid daily levels for previous calendar years



Allocation In Scheme & Usage Forecast 20/21

• 20/21 Water Year

- 0% Medium Priority (MP) (NOM 185,732ML)
- 80% High Priority (HP) (NOM 46,127ML)
- 25000ML Carryover (CO)

Month	Start of month		Selma	Weemah	River	River	River	Dam
	Storage (m)	Storage (ML)	Ag	Ag	Ag	Industrial	Urban	EoM Storage %
July	192.45	155042	600	440	330	300	290	11.35%
August	192.34	147659	1000	300	900	300	290	10.61%
September	192.10	138002	1000	400	1200	300	290	9.70%
October	191.85	126210	1000	400	2000	300	290	8.59%
November	191.53	111797	550	400	2000	300	290	7.44%
December	191.16	96832	600	400	2000	300	290	6.47%
January	190.81	84190	400	650	2000	300	290	5.61%
February	190.47	73030	400	550	2000	300	290	4.94%
March	190.16	64265	400	550	1500	300	290	4.33%
April	189.83	56354	400	650	1500	300	290	3.85%
May	189.53	50050	400	700	1500	300	290	3.43%
June	189.22	44634	400	1000	1500	300	290	3.06%
		Totals	7150	6440	18430	3600	3480	39100

• Allocation Assignations

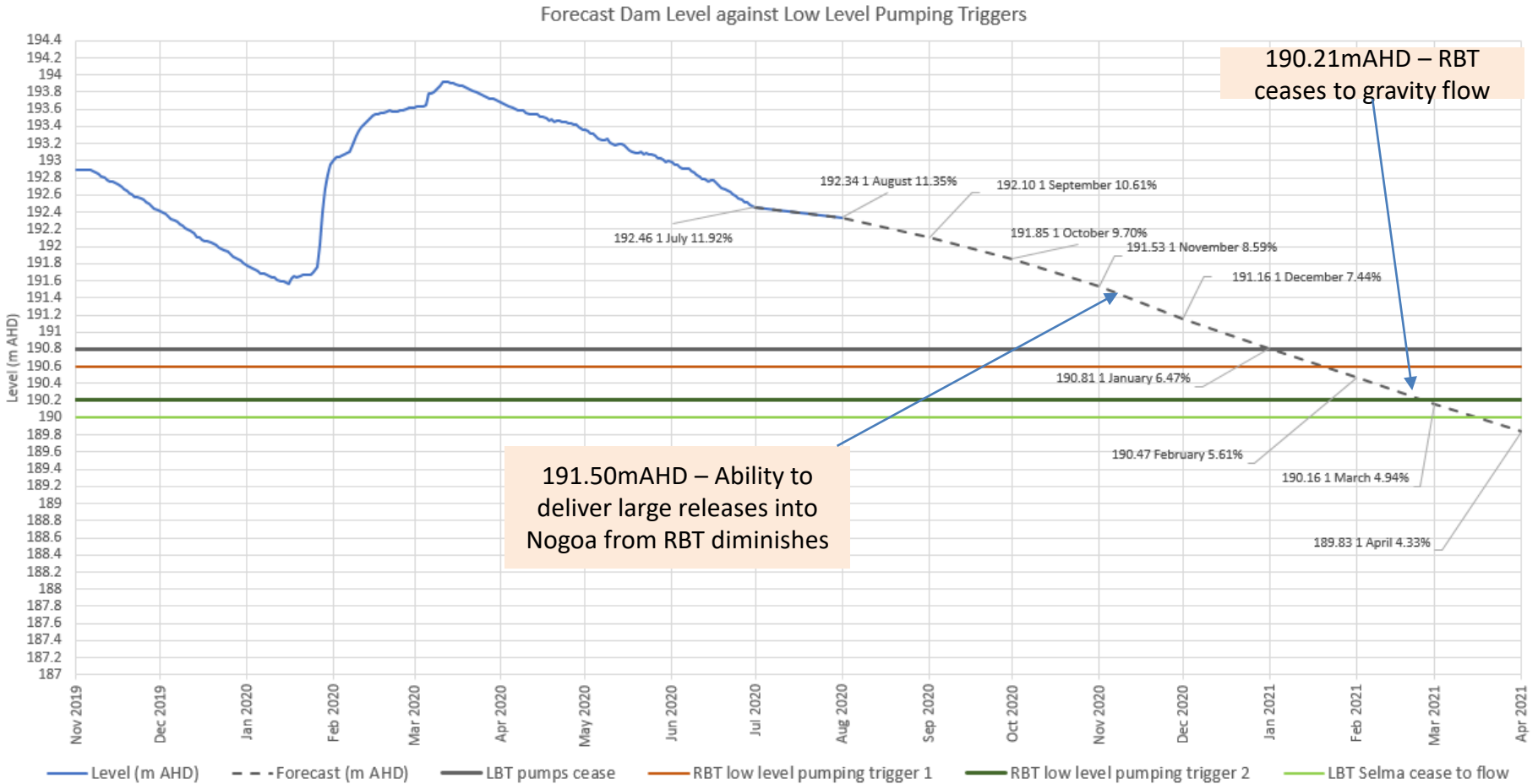
- Selma CO 2482
- Weemah CO 3747
- Weemah HP 933
- River CO 4767
- River HP 35968
- Pipelines HP 10446
- Tartrus CO 1360

TOTAL Water in Scheme

59,654ML after 1st Qtr Loss adjustment

Fairbairn Dam Forecast Levels

Based on current forecast usage, low level pumping trigger point is reached in middle of January 2021



Critical Levels & Constraints – Storage Performance

Right Bank Tower – Weemah Channel and Nogoia River

Level Event	Volume (Includes DSV)	EL (mAHD)	%
Weemah Channel and Right Bank Tower insufficient capacity to meet demand	110668	191.50	8.51
Weemah Channel Cease to Flow	90765	191.00	6.98
Right Bank Tower Cease to gravity inflow	65591	190.21	5.04
DEAD Storage	12315	185.86	0.95

Date	RBT Gates	Dam EL	%	Vol	Pin	River gate	River Valve	Weemah	Total
1/01/2020	fully open	191.774	9.42	122566	1.6	250	70	55	375
2/01/2020	fully open	191.774	9.42	122566	1.6	228	70	70	368
3/01/2020	fully open	191.752	9.3	121653	1.6	135	70	50	255
4/01/2020	Fully Open	191.747	9.3	121429	1.6	113	70	50	233
5/01/2020	Fully open	191.715	9.2	119989	1.7	113	70	50	233
6/01/2020	fully open	191.696	9.2	119140	1.7	113	70	50	233
7/01/2020	fully open	191.696	9.2	119140	1.7	115	70	40	225
8/01/2020	fully open	191.684	9.1	118607	1.7	115	70	40	225
9/01/2020	fully open	191.654	9.01	117232	1.7	157	70	50	277
10/01/2020	fully open	191.644	8.98	116841	1.7	170	70	50	290
11/01/2020	fully open	191.644	8.98	116841	1.8	155	70	50	275
12/01/2020	fully open	191.611	8.87	115410	1.8	139	70	50	259
13/01/2020	fully open	191.596	8.82	114760	1.8	138	70	40	248
14/01/2020	fully open	191.591	8.8	114499	1.8	129	70	35	234
15/01/2020	fully open	191.589	8.8	114499	1.8	124	70	35	229
16/01/2020	fully open	191.57	8.73	113589	1.8	134	70	20	224
18/01/2020	Fully open	191.65	9	117102	1.5	270	0	0	270
18/01/2020	Left gate closed , right gate just open	191.65	9	117120	1	113	0	0	113
18/02/2020	Left gate closed , right gate just open	193.552	16.6	215980	2.5	148	0	40	188
19/02/2020	Left gate closed, right gate open aprox half	193.55	16.6	215857	2.5	148	0	17	165
20/02/2020	Left gate closed, right gate open aprox half	193.575	16.7	217289	2.5	148	0	15	163
19/03/2020	right gate fully ope, left gate part	193.851	17.97	233,813	2.5	269	0	155	424

Critical Levels & Constraints – Storage Performance

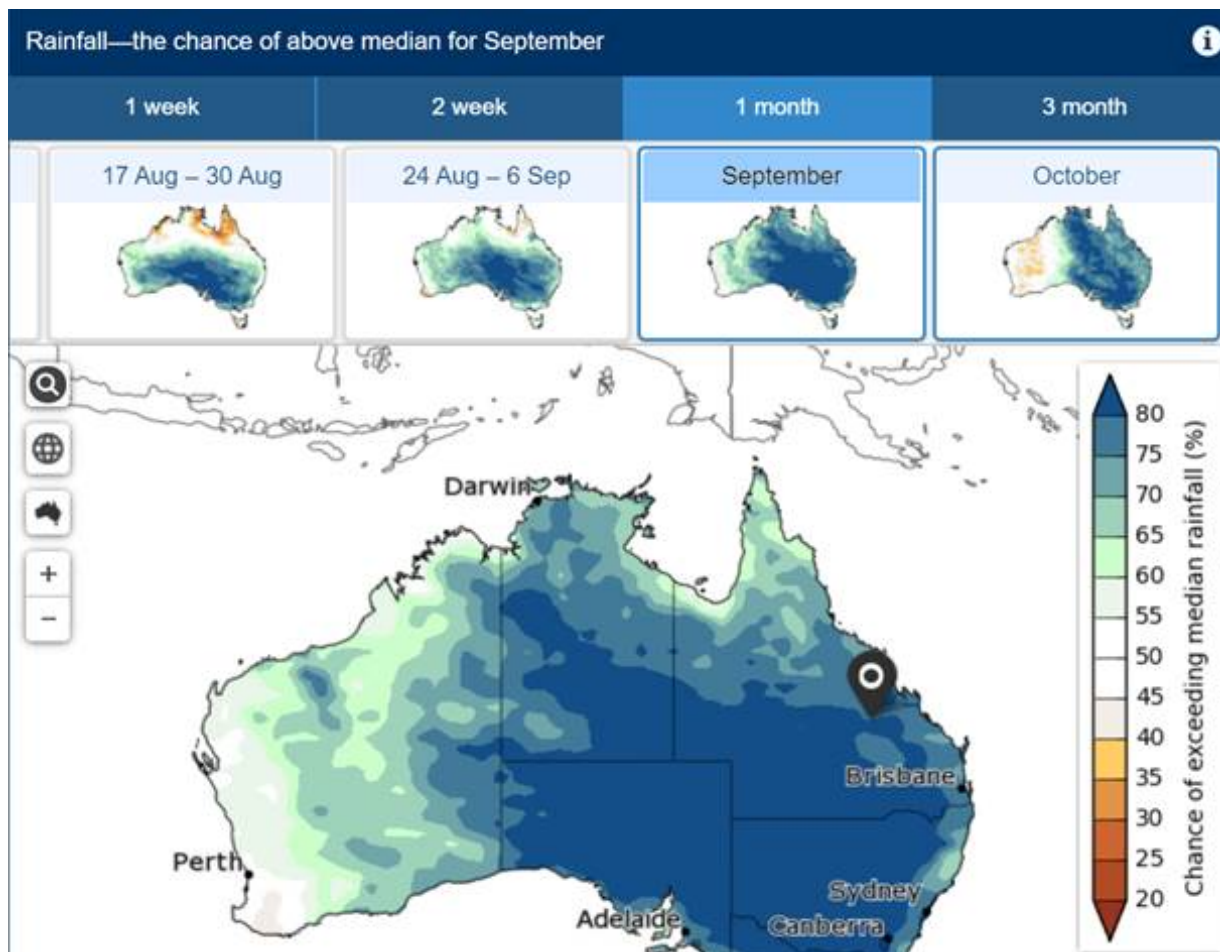
Left Bank Tower – Selma Pump Station

Level Event	Volume (includes DSV)	EL (mAHD)	%
Unable to utilise all 3 pumps (2 only)	106556	191.40	8.19
Unable to utilise 2 pumps (1 only)	94614	191.10	7.27
Unable to utilise any pumps	83715	190.80	6.43
Left Bank Tower Cease to gravity inflow into Tower well	60135	190	5.02

No of Pumps	EL	%	Theoretical Capacity (ML/D)	Measured Capacity (ML/D)	Date Tested	Which Pumps Used	Back Pressure	Theoretical vs Measured Ratio
3 Pumps	195.23	24.79%	639	590	11/06/2018	All		92%
3 Pumps	194.97	23.44%	630	560	17/07/2018	All	0.9	89%
2 Pumps	194.49	21.04%	434	410	3/09/2018	1, 2	0.9	94%
3 Pumps	194.269	19.97%	617	515	3/10/2018	All	0.9	83%
2 Pumps	194.269	19.97%	432	365	5/10/2018	1 & 2	0.9	84%
2 Pumps	194.143	19.34%	427	366	26/10/2018	1 & 2	0.9	86%
3 Pumps	193.18	14.94%	590	472	1/01/2019	1 & 2	0.9	80%
2 Pumps	193.059	14.42%	406	340	14/01/2019	1 & 2	0.9	84%
2 Pumps	192.69	12.87%	400	330	13/02/2019	1 & 2	0.9	83%
3 Pumps	192.58	12.43%	578	462.4	22/02/2019	1 & 2	0.9	80%
2 Pumps	192.58	12.43%	398	318.4	22/02/2019	1 & 2	0.9	80%
2 Pumps	193.588	16.77%	414	356	8/04/2019	1 & 3	0.9	86%

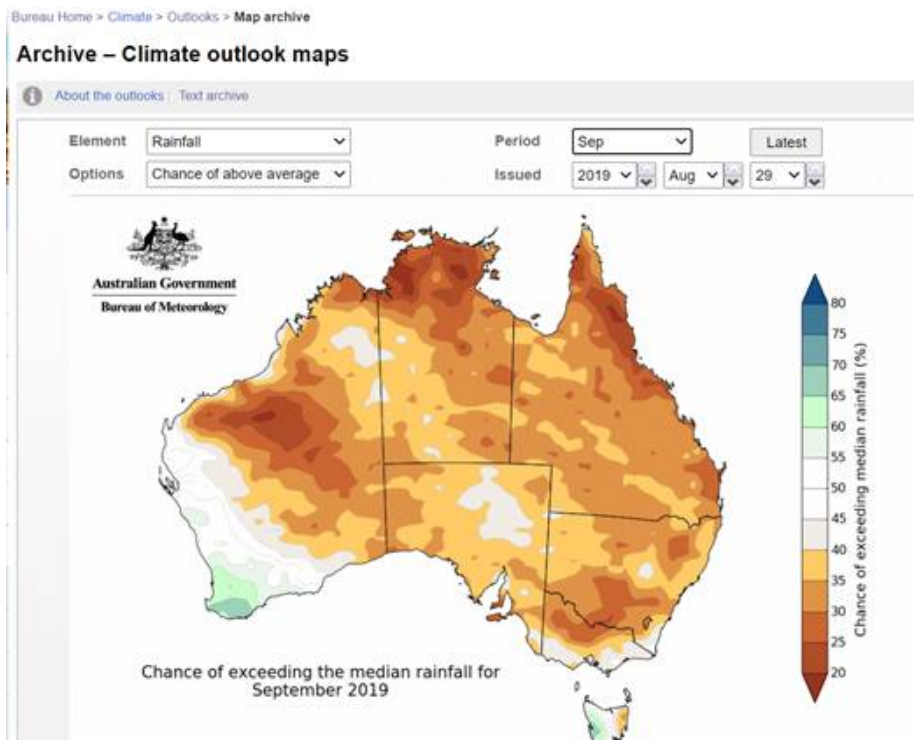
Climate outlook – September 2020

<http://www.bom.gov.au/climate/ahead/outlooks/archive.shtml>

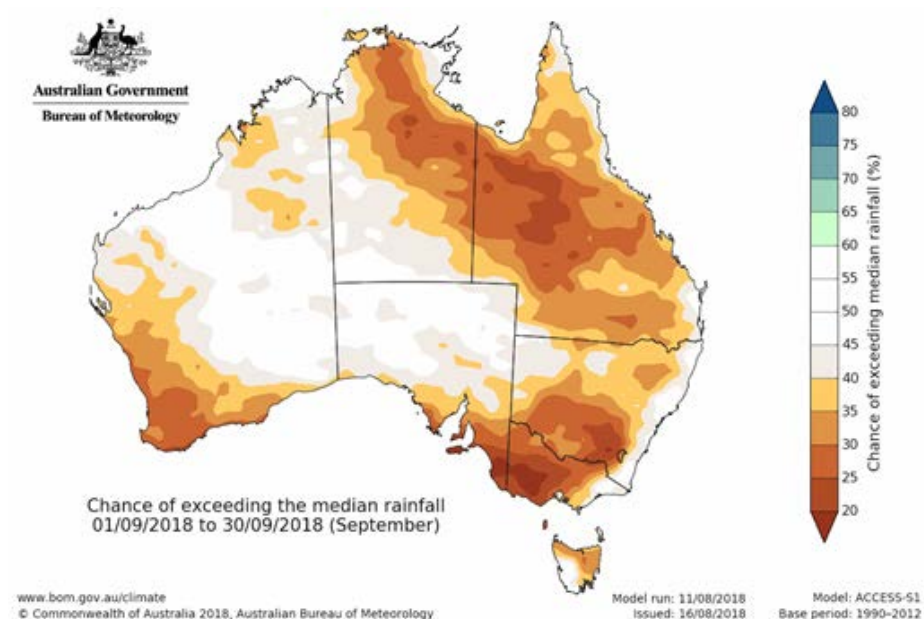


Climate outlook – Previous Years

2019 September Outlook

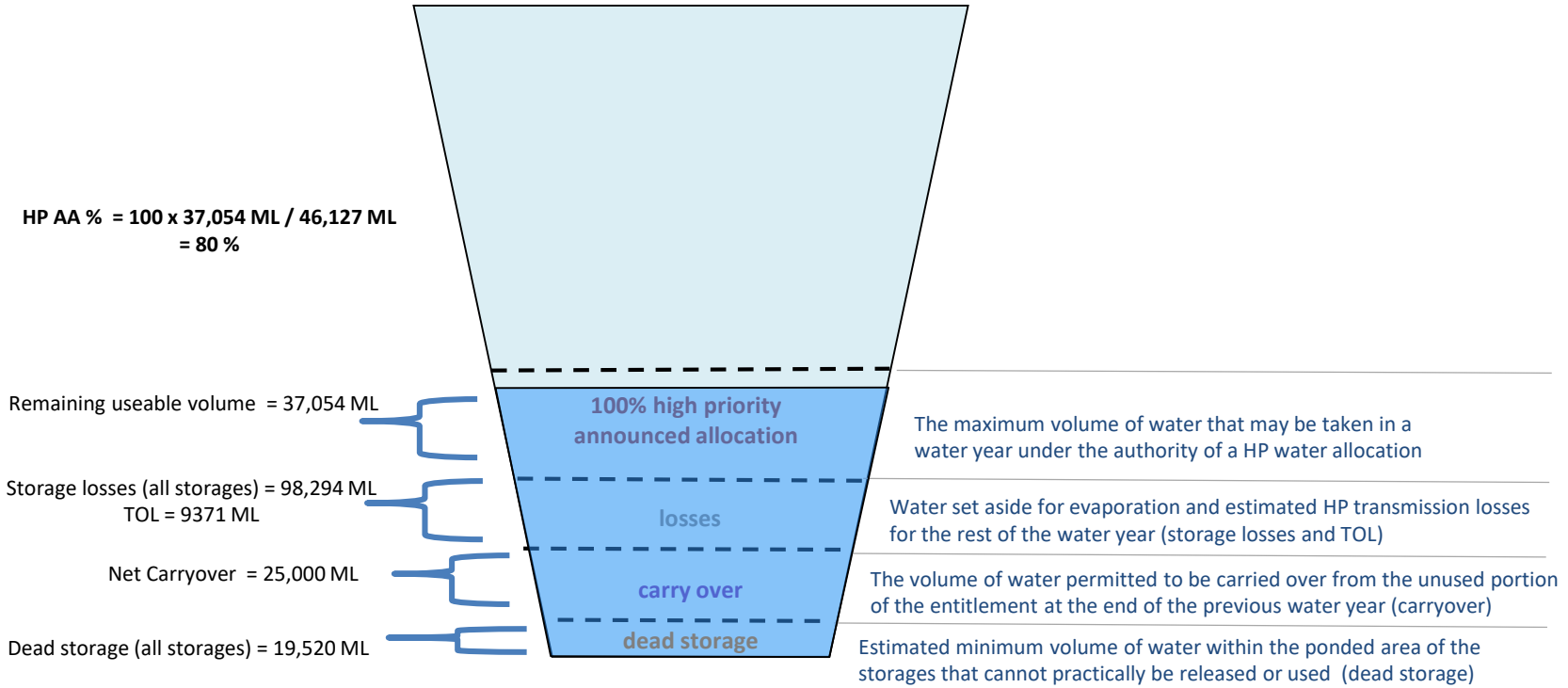



2018 September Outlook



Sharing water under the NMWSS announced allocation system - HP

FY 2020 Start of Water Year Announced Allocation: HP 80%



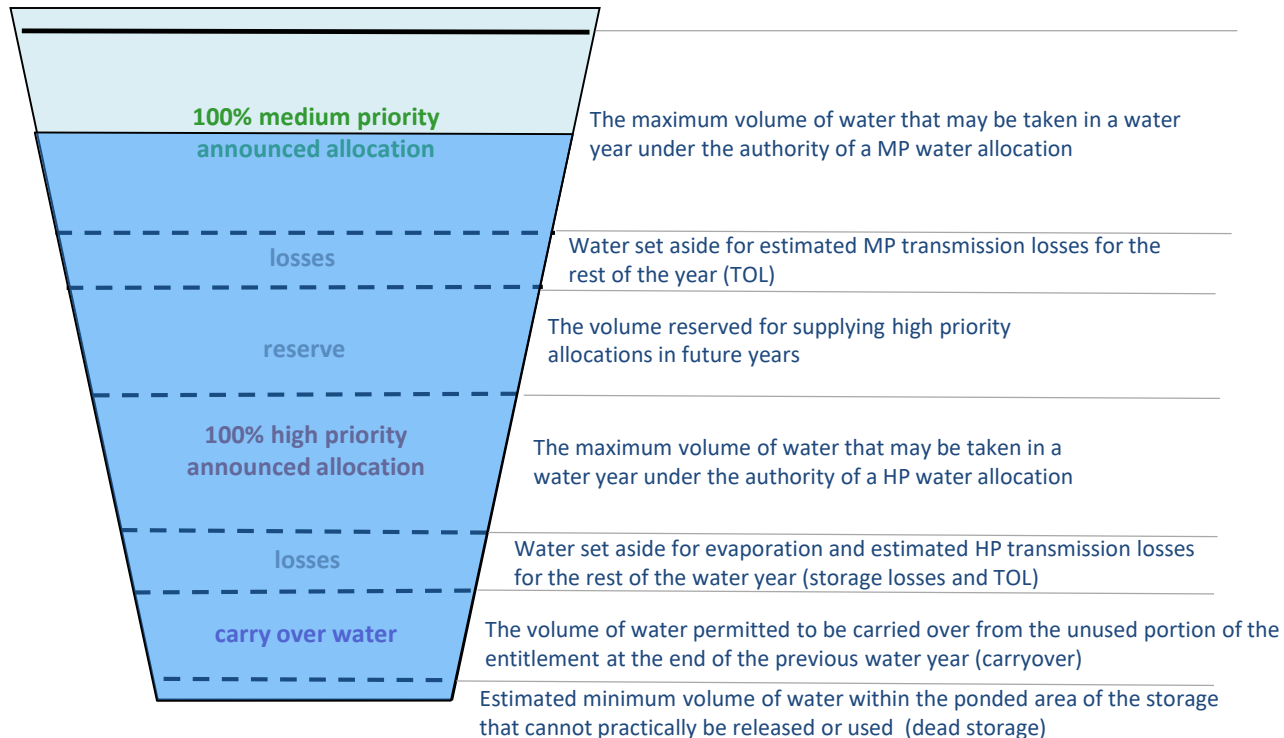
 Current volume (at start of water year). That is, the storage volume equating to the current storage level at the start of the water year (includes Fairbairn Dam, Bedford Weir, Bingegang Weir, and Tartrus Weir)

Schematic representation of the water rules – not to scale
Scheme HP nominal volume = 46,127 ML

Water sharing rules are detailed in the operations manual available at:
https://www.sunwater.com.au/wp-content/uploads/Home/Schemes/Nogoa-Mackenzie/Nogoa_Mackenzie_Water_Supply_Scheme_ROL_Operations_Manual.pdf

Sharing water under the NMWSS announced allocation system

Example: Start of Water Year Announced Allocation: HP 100% MP 50%



The storage volume equating to the current storage level at the start of the water year (includes Fairbairn Dam, Bedford Weir, Binegang Weir, and Tartrus Weir)

Schematic representation of the water rules – not to scale

Water sharing rules are detailed in the operations manual available at: https://www.sunwater.com.au/wp-content/uploads/Home/Schemes/Nogoa-Mackenzie/Nogoa_Mackenzie_Water_Supply_Scheme_ROL_Operations_Manual.pdf

Next Steps

- Continuous monitoring of usage and demand profiles
- Monthly IAC meetings and forecasts
- Finalise scope for low level

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