

## Details

**Meeting:** Healthy Floodplains Review Committee Meeting

**Location:** Via Microsoft Teams

**Date/time:** Wednesday 23 March 2021  
9.00am – 1.46pm

**Chairperson:** [REDACTED]

## Apologies

[REDACTED], Director Healthy Floodplains

[REDACTED], Manager Floodplain Harvesting

## People present

### Committee:

1. [REDACTED], Independent Chair of the Healthy Floodplains Review Committee
2. [REDACTED], NSW Nature Conservation Council representative and landholder, Mudgee
3. [REDACTED], NSW Irrigators Council representative, local irrigator and landholder, Moree
4. [REDACTED], NSW Farmers Association representative

### Guests:

5. [REDACTED], Advisor to Committee, NSW Farmers Association, landholder from Caroon area of the Liverpool Plains
6. [REDACTED], Alluvium Australia Pty Ltd
7. [REDACTED], [REDACTED] Consulting
8. [REDACTED], Policy Environment, NSW Farmers Association (Alternate member to [REDACTED])

### DPIE-Water Healthy Floodplains:

9. [REDACTED], Principal Project Officer
10. [REDACTED], Senior Project Officer
11. [REDACTED], Senior Project Officer
12. [REDACTED], Senior Project Officer
13. [REDACTED], Project Officer, DPIE-Water Healthy Floodplains (minutes)

## This meeting

No.	Issue	Action	Responsible
1	Meeting open 9:00am		
2	Declaration of conflict of interest	██████ – Standing declaration (no additional items to declare)	
3	Adoption of minutes dated 17 March 2021	Discussed, but meeting did not 'circle back' to endorse.  To be tabled for endorsement on 21 April meeting.	
4	Submissions	See submission outcomes table	
5	<p>Barwon-Darling Modelling by ██████ ██████</p> <p>Update of submissions prepared and submitted to ██████</p> <p>Themes: Change in climate stations similar to other valleys. Specific to Barwon-Darling was the addition of rainfall runoff rates for several properties that does not benefit. Use of software: AWBN Australian Water Balance Model to fill data gaps. DPIE model used observed 'in flows' rather than entitlements in Border Rivers (Qld approach). The eligible works scenario has been modelled as it shows actual events and historic ability to take water including the smaller peak flows. (except for ██████ which had to use observed data).</p> <p>Remote sensing and rainfall records to check model 'frequency' used. Used as regional area large and information on rainfall and runoff available.</p> <p>Same process used as for other valleys. Paper will explain.</p>	A modelling submission summary to be prepared and presented to meeting 13 April 2021 (now 22 April).	Department to prepare the modelling submission document for 22 April meeting.

No.	Issue	Action	Responsible
6	<p>Assessment of Barwon-Darling Modelling by [REDACTED]:</p> <p>Requests feedback from committee on what information should be included in his letter to go to landholders, how much detail is required on the technical issues.</p> <p>Minor corrections made to analysis, and results are consistent with analysis. Technically sound and consistent modelling approach and results. Due to lack of observed data on rainfall runoff, the modellers used similar rainfall runoff rates for similar arid landscapes.</p> <p>In summary, considers that the Department has used 'world's best practice' to the modelling of the Barwon Darling. It has been consistent, cross validated and undertook a rigorous review and considered multiple lines of evidence.</p>	<p>[REDACTED] requested committee provide him with dot points of their concerns so that he may address appropriately in his report and information on detail for landholder letter.</p> <p>Committee requested summary report. [REDACTED] to prepare summary advice to committee on Barwon-Darling modelling.</p>	<p>Committee has opportunity to provide dot points to [REDACTED] in 1 week.</p> <p>[REDACTED] to prepare and present a report on the Barwon Darling modelling for the 22 April meeting.</p>
8	<p>Other Business</p> <p>Next Meeting – 7 April</p>		
	<p>Meeting close 1.46pm.</p>		

## Next meeting

7<sup>th</sup> April 2021 - 8:30am – via Microsoft Teams

## Submission Outcomes - Returning

	Submission number, property and issue	Recommendation to Committee	Committee Determination
1	<p><b>N080</b> [REDACTED]</p> <p>1. Contesting OFS1</p> <p>2. Contesting OFS2</p> <p>3. Contesting OFS3</p> <p>4. Contesting OFS4</p> <p>5. Increase in pump capacity for FPH 20 from 80 ML/day to 130 ML/day.</p> <p>6. Amend pump FPH 21 from 500mm axial pump with a capacity of 80 ML/day to a 660mm axial pump</p>	<p>Moderate evidence for increase in storage at OFS1 from 1440 ML to 2077 ML and may support partial request (increase to 2077 ML and not 2440 ML) based on the evidence provided and analysis by NRAR.</p> <p>Moderate evidence for increase in storage at OFS2 from 250 ML to 505 ML and may support partial request (increase to 505 ML, not 630 ML) based on the evidence provided and analysis by NRAR.</p> <p>Moderate evidence for increase in storage at OFS3 from 1220 ML to 1719 ML and may support partial request (increase to 1719 ML and not 1940 ML) based on the evidence provided and analysis by NRAR.</p> <p>Moderate evidence for increase in storage at OFS4 from 540 ML to 796 ML and may support partial request (increase to 796 ML and not 930ML) based on the evidence provided and analysis by NRAR.</p> <p>Information as requested has been supplied to substantiate claimed output which is at the high end expected for such pump configurations. Supported.</p> <p>Based on increased in pump size and engine capacity the proposed capacity is supported.</p>	<p>Recommend:</p> <p>OFS1 - using desk top assessment, LiDAR and natural surface survey, support 1786ML.</p> <p>OFS2 - using desk top assessment, support 311ML.</p> <p>OFS3 – support desk top assessment 1310ML.</p> <p>OFS4 – based on desk top assessment, support 596ML.</p> <p>FPH20 – support change in pump capacity from 99ML/day to 130ML/day.</p> <p>FPH21 – support increase in pump from to 500mm axial to a 660mm axial with a capacity of 150ML/day.</p>

<p>with a capacity of 150 ML/day.</p> <p>7. Increase pump FPH 22 (EP 4) size and capacity from 610mm axial at 80 ML/day to 660mm axial at 150 ML/day.</p> <p>8. Increase in FPH 23 (EP 5) pump size from 510mm at 80 ML/day to 610mm at 130 ML/day</p> <p>9. Addition of pump FPH24 to eligible works as 610mm axial with a flow rate of 130 ML/day</p> <p>10. Addition of pump FPH45 to eligible works and increase in pump size from 20" (510mm) axial to 610mm axial with a flow rate of 130 ML/day.</p>	<p>Based on increased in pump size and engine capacity the proposed capacity is supported.</p> <p>Information as requested has been supplied to substantiate claimed output which is at the high end expected for such pump configurations. Supported.</p> <p>Information as requested has been supplied to substantiate claimed output which is at the high end expected for such pump configurations. Supported.</p> <p>Information as requested has been supplied to substantiate claimed output which is at the high end expected for such pump configurations. Supported.</p>	<p>FPH22 – support change from 610mm to 660mm axial with a capacity of 150ML/day.</p> <p>FPH23 – support change from 510mm to 610mm with a capacity of 130ML/day.</p> <p>FPH24 – support inclusion of 610mm axial pump with a capacity of 130ML/day.</p> <p>FPH45 – support change in pump size from 510mm axial to 610mm axial with a capacity of 130ML/day.</p>
<p><b>N144</b> [REDACTED]</p> <p>3. Request amendment of pipe FPH4 from 1x600mm to 2x900mm</p> <p>4. Requesting amendment of pipe</p>	<p>3. NRAR supports addition of two pipes to eligible works</p> <p>4. Document 33 not specifically clear in relation to location of pipes or</p>	<p>FPH4 – support 900mm pipes to connect to FPH 12 to internal tailwater return, and support 900mm pipe connecting internal tailwater return to FPH14.</p>

<p>FPH5 from 1 x 500mm to a 1 x600mm and 1 x800mm pipe</p> <p>7. Change in FPH 11 pump type and increase in pump capacity to 130 ML/day.</p> <p>10. Inclusion of channels FPH14 to eligible works</p>	<p>operation but would seem to match inspection photo. Supported.</p> <p>7. Strong evidence for changing pumps from centrifugal to axial. MODERATE EVIDENCE for increasing flow rate from 120 ML/day to 130 ML/day. NRAR supports change from centrifugal to axial Increase in pump capacity to 130 ML/day is supported.</p> <p>10. It is currently mapped from FPH 8 (see Doc 34) to 130m south of FPH 4 (see highlighted channel in blue as attached). This and Channel 13 require to be extended so that they connect.</p>	<p>FPH5 - support 1x600mm and 1x800mm gated pipes.</p> <p>FPH11 – support change in 2x 610mm axial pumps with a combined capacity of 130ML/day.</p> <p>FPH8 - channel 14 support inclusion as eligible FPH works.</p>
<p><b>N036</b> [REDACTED]</p> <p>5. FPH30 – requesting addition of 1200mm pipe.</p> <p>6. Requesting additional pipe at FPH31.</p> <p>17. Requesting additional 660mm pump with a flow rate of 120ML/day to collect water from FPH50 and FPH51.</p> <p>19. Requesting additional temporary storage with a capacity of 120ML.</p>	<p>5.FPH30 - support addition of 1200mm pipe.</p> <p>6. FPH31 - 2x1200mm pipes should be remapped to FPH93 as FPH30 and 31 are the same pipe just opposite end of inverted siphon.</p> <p>17. The inclusion of a 660mm centrifugal pump with a flow rate of 120ML/day located at [REDACTED] may be supported.</p> <p>19. Inclusion of a temporary storage located west of OFS6 ([REDACTED]) with a capacity of 120ML with a 0.5m freeboard is supported.</p>	<p>FPH30 - support addition of 1200mm pipe.</p> <p>FPH93 - support inclusion of 2 x 1200mm pipes.</p> <p>Support FPH 660mm centrifugal pump at location [REDACTED] with a 120ML/day capacity.</p> <p>Support temporary OFS with a capacity of 92ML.</p>

<p><b>N051</b> [REDACTED]</p> <p>2. Requesting inclusion of historical storage that was present up to the year 2000. From 0 to 197ML, an increase of 197ML.</p> <p>3. Requesting amendment of flow rate for FPH9 pump from 99 ML/day to 130 ML/day.</p>	<p>2.NRAR supports inclusion of western storage as temporary only with a capacity of 197ML.</p> <p>3. FPH9 - NRAR supports the increase in capacity from 99 ML/day to 130 ML/day.</p>	<p>Western temporary storage is <u>not supported</u> as eligible works following legal advice.</p> <p>FPH9 – the pump flow rate to remain at 99ML/day.</p>
<p><b>M040</b> [REDACTED]</p> <p>6. Inclusion of northern fields as Temp Storages. As per ROI &amp; Farm Plan.</p>	<p>6.Moderate evidence, based on NRAR desktop assessment a volume of 300 ML is supported.</p>	<p>Deferred until [REDACTED] provides email of satellite images (email circulated during morning tea break).</p> <p>Recommendation endorsed by committee:</p> <p>Support inclusion of surge area as described on p7 submission with a capacity of 206ML. Fields 8 and 11 <u>not supported</u> as temporary storage.</p>
<p><b>N203</b> [REDACTED]</p> <p>Returning for information only</p>		<p>The committee received and noted the information provided.</p>
<p><b>N068</b> [REDACTED]</p> <p>7. Requesting flow rate for FPH31 on property N064 (700 mm) pump be amended to 150 ML/day.</p>	<p>7. <u>Additional information from NRAR</u></p> <p>Note this part of property N064 was previously owned by this landholder in 2008 and the pump was integral to FPH at that time.</p> <p>This pump is verified and mapped as FPH15 on N064 currently. The irrigation layout was clear in the 2008/2009 imagery. It was a critical lift pump so would not have changed for over 20 years.</p> <p>This pump is currently mapped as ineligible on N064 so could be included on N068 as eligible work.</p>	<p>Deferred until the Department speaks to both land holders and provides further advice to the committee.</p>

	<p>8. Requesting addition of [REDACTED] channel at an intake rate of 345ML/day</p>	<p>Evident in the 2008/2009 imagery.</p> <p>DPIE- Water recommend issuing 1 licence for both properties with owners as joint tenants in common and the owners establish their share components.</p> <p>8. <u>Additional information from NRAR</u></p> <p>Note this part of property N064 was previously owned by this landholder in 2008 and the channel was integral to FPH at that time</p> <p>This is the channel that supplied the above pump (Issue 7) in 2008.</p> <p>Modellers to be informed that this channel should be eligible for N068 as at 2008 and to determine its current importance for N064.</p>	
	<p><b>N016</b> [REDACTED]</p> <p>2. Contesting pump capacity of FPH12, FPH16, FPH17, FPH18, FPH19 and FPH21.</p>	<p>2. The table represents the outcomes of the latest supplied information and is regarded as STRONG evidence DPIE supports claimed pump capacities.</p>	<p>Committee endorsed the pump table and stay capacity as included on p8 of submissions summary. Refer to Appendix in these minutes for a copy of the table.</p>
	<p><b>Submission Outcomes - Contested</b></p>		
	<p><b>N033</b> [REDACTED]</p> <p>Contesting storage volumes. New storage reports provided.</p>	<p>OFS1 - Strong evidence provided as to actual and design capacity of storage</p> <p>NRAR supports the upgrade of capacity from 820 ML to 2184 ML, an increase in 1475 ML</p> <p>OFS2 – Strong evidence provided as to design capacity of storage NRAR supports the upgrade of capacity from 40 ML to 264 ML an increase in 224 ML</p> <p>OFS3 – Strong evidence provided</p>	<p>OFS1 - supports the upgrade of capacity from 820 ML to 2184 ML, an increase in 1475 ML.</p> <p>OFS2 - supports the upgrade of capacity from 40 ML to 264 ML an increase in 224 ML.</p> <p>OFS3 – support increase in storage from 320 ML to 548 ML an increase in 228 ML.</p>



		NRAR supports upgrade of volume as claimed from 320 ML to 548 ML an increase in 228 ML.	
	<p><b>N044</b> [REDACTED]</p> <p>2. Requesting amendment of pipe FPH5 from 600mm to 790mm</p>	<p>2. Strong evidence of increase in pipe FPH5 size from 600mm to 790mm.</p> <p>May be supported.</p> <p>Additional photo supplied showing the photo taken during the original NRAR inspection and that it is the same pipe in question. Note also that a comparison of photos (Documents 005 and 006) shows that the tape measure is adjacent to the rock at the edge of the pipe, indicating they are the same photo.</p> <p>Landholder states that the pipe is not a normal sized irrigation pipe and that it is definitely 790mm in diameter.</p> <p>See also, Statutory Declaration – Document 007.</p>	<p>FPH5 – support increase in pipe size from 600mm to 790mm.</p>
	<p><b>N219</b> [REDACTED]</p> <p>1. Contesting original determination of nil FPH entitlement.</p>	<p>1. Based on the policy directive for establishing share components in unregulated river sources, Abilene North is eligible for additional FPH entitlement of 1199ML.</p>	<p>1. Deferred until Stat Dec received for 1998-1999 irrigated areas for cropping.</p>
	<p><b>N021</b> [REDACTED]</p> <p>1. Contesting OFS2 result.</p> <p>2. Requesting amendment of FPH 4 pump from 350mm to 400mm with flow rate of 50-60 ML/day.</p>	<p>1. Volume at 1m freeboard at 2008 is 192 ML not 186 ML. NRAR clarified storage curve and 192ML at 1m freeboard.</p> <p>2. Subsequent information provided showing photos of spec plates and Lat / Long Coordinates verifying that Pump FPH 4 at OFS 1 and 2 is a 16" or 406mm Ornel single stage axial pump. The nominal pump rate for these is 45 ML/day.</p> <p>Moderate evidence.</p> <p>DPIE supports increase in pump size and rate from 350mm at 30 ML/day to 406mm at 45 ML/day.</p>	<p>1. OFS2 – support 192ML capacity.</p> <p>2. FPH4 – support increase in pump size to 406 axial with a capacity of 45ML/day.</p>

	<p>3. Requesting amendment of FPH 5 pump from 400mm to 600mm pump with flow rate of 90-120 ML/day.</p> <p>4. Requesting inclusion of surge area.</p>	<p>3. Subsequent information provided showing photos of spec plates and Lat / Long Coordinates verifying that Pump FPH 5 at OFS 3 is a 24" or 600mm Floodlifter (Model FE456) axial pump. The nominal pump rate for these is 99 ML/day.</p> <p>Moderate evidence.</p> <p>DPIE supports increase in pump size and rate from 400mm at 40 ML/day to 600mm at 99 ML/day.</p> <p>4. Weak evidence for inclusion as eligible work.</p> <p>DPIE <u>does not support</u> inclusion of surge area and recommend that it be referred to modelling for consideration.</p>	<p>3.FPH5 – support change in pump size from 400mm to 600mm at 99ML/day.</p> <p>4. Surge area <u>not supported</u> due to Department analysis, refer to modellers for consideration.</p>
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## Appendix

### N016 [REDACTED]

Pump	Pump Type	NRAR Capacity (ML/day)	Claimed Cap/day Normal	Maximum -20%increase	Source of flow rate data
Pump FPH 12	300mm Centrifug [REDACTED] JD 4045 – 84 hp	18	32	38.4	Attached table and pump supplier
Pump FPH 16	350mm Centrifug [REDACTED] JD 4045 84 hp	25	34	40.8	Attached table and pump supplier
Pump FPH 17	600mm Centrifugal [REDACTED] JD 6068T – 170 hp	95	104	124.8	Attached table and pump supplier
Pump FPH 18	533mm [REDACTED] 21/24 AxialJD 6068T - 170 hp	90	95	114	Attached table and pump supplier
Pump FPH 19	450mm Centrifug [REDACTED] [REDACTED] 1006 – 107 hp	50	55.6	66.72	Attached table and pump supplier
Pump FPH 21	450mm Axial JD 6359 - 114 hp	57	50	60	Attached table and pump supplier