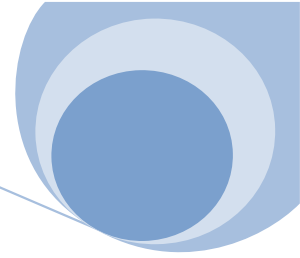


<b>1. Information on confidentiality and privacy</b>	
I give my permission for my submission to be publicly available on the NSW Department of Planning and Environment website.:	Yes
I would like my personal details to be kept confidential.:	Yes
<b>2. About you</b>	
Email address:	
Name of respondent:	
Address:	
Contact phone number:	
Are you an individual or representing an organisation:	Individual
<b>3. Northern management plan</b>	
Floodplain Management Plan Feedback that your feedback relates to::	Barwon Darling Valley Floodplain 2016
<b>4. Review feedback questions</b>	
Is the floodplain management plan adequate and appropriate for ensuring the effective implementation of the water management principles?:	<p>No. The Native Title holders, the Baakandji people who received consent determination in June 2015, for the whole length of the Baaka, the Darling River, are remarkably absent from the Floodplain Management Plan for the Barwon-Darling Valley Floodplain 2017. The acknowledgement in the "Part 2" Vision objectives, strategies and performance indicator states: "Respect is paid to the Traditional Owners of this country, who are acknowledged as the first natural resource managers within this floodplain. In recognition and respect, of the Traditional Owners of this country, this Plan establishes four geographical reaches in the Barwon-Darling Valley Floodplain. Each reach is named after the Traditional Owners of this country. The following provides the name and description of each reach: (a) Gomeroy Reach The Gomeroy reach commences from the New South Wales/Queensland border in the vicinity of Mungindi in the north and extends downstream along the Barwon River and adjacent floodplain area to the junction of Dead Man's Creek and the Barwon River. (b) Euahlayi, Gomeroy and Wayilwan Reach The Euahlayi, Gomeroy and Wayilwan reach commences from the Gomeroy reach in the north and extends downstream along the Barwon River and adjacent floodplain to the area immediately downstream of the junction of the Big Warrambool and the Barwon River. (c) Ngemba, Wayilwan, Euahlayi and Baranbinja Reach The Ngemba, Wayilwan, Euahlayi and Baranbinja reach commences from the Euahlayi, Gomeroy and Wayilwan reach and extends downstream along the Barwon River and adjacent floodplain to the area immediately downstream of the junction of the Culgoa River, Barwon River and Bogan River. This area is also known as "Three ways". (d) Wangaaypuwan, Ngemba, Baranbinja and Gunu Reach The</p>

	<p>Wangaaypuwan, Ngemba, Baranbinja and Gunu reach commences from the Ngemba, Wayilwan, Euahlayi and Baranbinja reach and extends downstream along the Darling River and adjacent floodplain to “Weir 21” located downstream of Louth.” It appears the Baakandji people who live down the upper and lower Darling River are the ones who will be affected the most when these policies fail, yet they are not included with respect or acknowledgement as traditional owners. Part of the plan. Lack of inclusion precedes the possibility of policies making the whole Darling River becoming ephemeral, as some in the upstream cotton industry even now describe it.</p>
<p>Are there issues with the plan that were identified since commencement and impact on effectiveness of implementation?:</p>	<p>The vision statement in part 2 of the Floodplain Management plan for the Barwon Darling Valley floodplain 2017 describes “managing the development of new flood works and amendments to existing flood works to protect the passage of floodwater through the floodplain”. In the Lower Darling, that the basic vision was somehow lost to the Central Darling Shire when updating Irrigation Rd in Menindee, (only a few km in length). It was built higher with bitumen and apparently insufficient culverts to allow free passage of water through the small floodplain. This new road is a higher barrier to floodwater. Some dwellings and holiday shacks are situated on the floodplain closer to the river. It is predicted the height and duration of flood to these dwellings would be increased if sufficient water were released to enable the Lower Darling floodplains to receive their well overdue allocation of water. Although this is affecting the Lower Darling, the Central Darling Shire, (based in the upper Darling), is responsible for this road. This road is a floodplain diversion, and as such, is being blamed for why the Lower Darling floodplain cannot be watered. This is a prime example of how this plan is not fit for purpose: Although this example is in miniature version of what is legal in the plan, any irrigator can build up a road or fence line, and claim risk to property, however small that may be, placing downstream at risk of permanent drought to their benefit. (This Irrigation Rd example theoretically could have been designed deliberately to restrict flow to the floodplains of the Lower Darling, to 'drought out' the incumbent graziers, by unscrupulous individuals who's vested interests are irrigation licences upstream). It also highlights the consequences a small action can have on such an expansive region downstream with dire effect. Although the Irrigation Rd is just in the Lower Darling, please alert the appropriate body to retro-fit some useful culverts so the Lower Darling will be afforded a drink. Before its too late this wet year.</p>
<p>Are there potential amendments to the plan that should be considered?:</p>	<p>As floodplain harvesters have been diverting water from the water course for free, with no licences, and making huge profits, they should never be compensated if their licences are ever reduced. They have had the cream of the crop, now expect it is their god-given right. Its unethical. Please find in docs a relevant, sensible excerpt from Helen Dalton MP. In a very high rainfall year such as this, the floodplain harvesting can be justified as an exception, not the rule. However, it should always only become possible after the rest of the downstream floodplains have had a water. The</p>

	<p>floodplains downstream from Menindee in the southern Darling have not been watered as yet. This needs rectifying. Floodplain harvesting should not be transferable from an existing works. Nor traded. Trading water on the market is the ruin of the Murray Darling Basin, artificially elevating prices.</p>
Upload additional information:	<p>Helen Dalton MP Bill to prevent floodplain harvesters from financial compensation..docx, type application/vnd.openxmlformats-officedocument.wordprocessingml.document, 15.2 KB</p>

<b>1. Information on confidentiality and privacy</b>	
I give my permission for my submission to be publicly available on the NSW Department of Planning and Environment website.:	Yes
I would like my personal details to be kept confidential.:	Yes
<b>2. About you</b>	
Email address:	
Name of respondent:	
Address:	
Contact phone number:	
Are you an individual or representing an organisation:	Organisation
<b>3. Northern management plan</b>	
Floodplain Management Plan Feedback that your feedback relates to:	Barwon Darling Valley Floodplain 2016
<b>4. Review feedback questions</b>	
Is the floodplain management plan adequate and appropriate for ensuring the effective implementation of the water management principles?:	SWWU submits that the downstream needs of the river cannot be ignored within the Barwon-Darling Water Floodplain Management Plan simply because the Barwon-Darling is an unregulated river and the Lower Darling River is regulated under the Water Management Act, 2000. All water plans must consider the river as a whole and the need for connectivity of flows.
Are there issues with the plan that were identified since commencement and impact on effectiveness of implementation?:	While the draft BD Plan refers to managing the floodplain on a 'whole of river basis', the Plan itself ignores the floodplain on the bottom half of the river. SWWU also note that recent Water NSW advertised applications notification announcements indicate attempts in the Upper Darling to legalise floodplain obstruction. Legalising these prior to having a flood management policy is hugely disconcerting, raising alarm bells for all living downstream. We would submit that any assessment of this process must incorporate all of the river – not just half of it. And any assessment must incorporate the cumulative impact of 'all' obstructions – not just the individual impact of 'a' floodplain obstruction.
Are there potential amendments to the plan that should be considered?:	In summary, the SWWU calls for the following; • protection of low flows or flows of short duration from extraction in the Barwon-Darling and tributaries until the needs of the river and high priority uses downstream are met. • maintenance of a volume of water in Lake Wetherill and Pamamaroo to meet environmental needs and 18 months water supply and restart allowance as proposed in MLDWSP
Upload additional information:	Submission to the Barwon Darling Valley Floodplain Management Plan review.doc, type application/msword, 70.5 KB



## **Submission to the Barwon Darling Valley Floodplain Management Plan review**

**South Western Water Users Association**

**May 2022**

Dear DPIE NSW,

Thank you for the opportunity to provide a submission to the Barwon Darling Valley Floodplain Management Plan review.

The SWWU represents licensed water users on the Lower Darling River downstream of the Menindee Lakes water storage scheme and licensed water users on the Murray River downstream of the junction with the Murrumbidgee River to the SA border. Our members divert water for domestic and stock purposes and for irrigation of permanent plantings and annual crops, using both high security and general security entitlements.

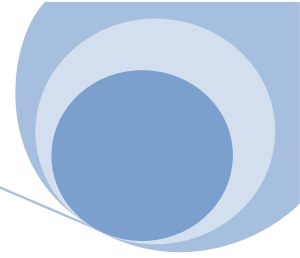
The environmental health of the Menindee Lakes and the Lower Darling River is entirely dependent on inflows from the Barwon-Darling River. Such health reflects directly on our members needs of a healthy riverine system and on the health of our local communities.

While the draft BD Plan refers to managing the floodplain on a 'whole of river basis', the Plan itself ignores the floodplain on the bottom half of the river.

SWWU also note that recent Water NSW advertised applications notification announcements indicate attempts in the Upper Darling to legalise floodplain obstruction. Legalising these prior to having a flood management policy is hugely disconcerting, raising alarm bells for all living downstream. We would submit that any assessment of this process must incorporate all of the river – not just half of it. And any assessment must incorporate the cumulative impact of 'all' obstructions – not just the individual impact of 'a' floodplain obstruction.

Over the past decades, particularly since the development of the cotton industry upstream of Menindee, inflows to the Menindee Lakes have been reducing. The 'Independent Assessment of the 2018-19 Fish Deaths in the Lower Darling – Interim Report' noted that Pre-development inflow volumes into the Menindee Lakes Scheme were two to three times greater than current. Importantly, the interim report also noted that the relative effects of diversions of flows in the Barwon-Darling are greater in dry years and that extraction of flows from the tributaries of the Barwon-Darling has a significant impact on inflows to the Menindee Lakes.

This is evidenced by the fact that since 2004 there have been four extended periods where the Menindee Lakes have dried to the extent that releases to the Lower Darling have ceased and the river downstream of the Menindee main weir has ceased to flow.



The result of increased extraction of water for irrigation upstream of Menindee, particularly during dry periods, is clearly having a serious impact on the health and productivity of the Barwon-Darling and Lower Darling Rivers downstream, where the river has been reduced to a series of stagnant pools dominated by blue-green algae blooms and most recently subject to extensive fish kills.

It is the belief of SWWU that Water Sharing Plans for the Barwon-Darling and for its tributaries must consider the environmental needs of the river downstream and of the higher priority needs for consumptive use including town water and domestic and stock supply. It is submitted by SWWU that extractions for annual crops upstream of the Menindee Lakes should only be allowed after the needs of the river and priority uses downstream have been met.

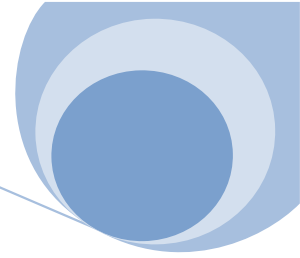
SWWU submits that the downstream needs of the river cannot be ignored within the Barwon-Darling Water Floodplain Management Plan simply because the Barwon-Darling is an unregulated river and the Lower Darling River is regulated under the Water Management Act, 2000. All water plans must consider the river as a whole and the need for connectivity of flows.

Up until recently (2014), diversions of flows for irrigation from low flows or flows of short duration occurring during dry periods were typically embargoed until the security of water supply for Broken Hill was guaranteed for 18 months. By imposing these embargoes, the health of the river downstream was also protected. It is well documented that these small flows are critical in providing drought refuge for native fish and other wildlife, and for priming the river bed so that when higher flows occur these generate flows rather than seep into the bed.

SWWU recognises that the water supply for Broken Hill has recently been secured by a pipeline from the River Murray. While this reduces the need to provide 18 months guaranteed supply for Broken Hill from the Menindee Lakes, a similar target is necessary to secure water supply for other towns, the environmental needs of the river and for stock and domestic supply.

SWWU submits that a target of water storage in the two upstream lakes of the Menindee Lakes Scheme (Wetherill and Pamamaroo) needs to be established, either as a prescribed volume or for a period equivalent to 18 months of supply for the environment, town water and domestic and stock supply before access to flows for irrigation and that this should be included in the Barwon-Darling Water Sharing Plan.

SWWU realises that the long term health and productivity of the Barwon-Darling and Lower Darling River is under serious threat. Simply ensuring low flows or flows of short duration during dry sequences is only one factor that will contribute to improving the health of the river and for providing water to the communities downstream.



In summary, the SWWU calls for the following;

- protection of low flows or flows of short duration from extraction in the Barwon-Darling and tributaries until the needs of the river and high priority uses downstream are met.
- maintenance of a volume of water in Lake Wetherill and Pamamaroo to meet environmental needs and 18 months water supply and restart allowance as proposed in MLDWSP

We look forward to the outcomes of the review of the Barwon-Darling Flood Management Plan and trust that the measures recommended will ensure the health and productivity of the Barwon-Darling and Lower Darling Rivers, Great Anabranh and the Menindee Lakes.

If you would like any further information regarding this submission please contact either [REDACTED] or [REDACTED].

Yours sincerely,

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

# Review of the Floodplain Management Plan for the Barwon-Darling Valley Floodplain 2017

Office use only

Submission number

How to fill out this form

The NSW Department of Planning and Environment (Water) is seeking feedback on the review of the Barwon Darling Valley floodplain management plan.

NSW floodplain management plans are valid for 10 years from their commencing date. Amendments to floodplain management plans are made throughout their life to ensure they comply with changing legislation and to facilitate their implementation. Within its fifth year a formal review is completed by the department to identify the necessary alterations to deliver better outcomes for all water users, including the environment.

Please provide any feedback below. This information will help in informing the review of these plans and future planning in these areas.

A copy of your submission will be sent to your email address provided in the next section.

**\*Required**

Send completed submissions to:

Post: FMP Review Submissions

Att Mgr Water Deliverables

Department of Planning, Industry and Environment

Locked Bag 1002

Dangar NSW 2309

Email: [floodplain.planning@dpie.nsw.gov.au](mailto:floodplain.planning@dpie.nsw.gov.au)

**Note: Submissions close 20 May 2022**



**How to fill out this form**

**Information on privacy and confidentiality**

The NSW Government will consider all submissions received. The Government values your input and accepts that information you provide may be private and personal.

If you want your submission or your personal details to be treated as confidential, please indicate this by ticking the relevant box below.

Be aware that the NSW Department of Planning and Environment may be required by law to release copies of submissions to third parties in accordance with the *Government Information (Public Access) Act 2009*.

If you do not make a request for confidentiality, the department may make your submission, including any personal details contained in the submission, available to the public.

1. I give permission for my submission to be publicly available on the NSW Department of Planning and Environment website *	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
2. I would like my personal details to be kept confidential	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

**Your details**

1. Email address*	XXXXXXXXXXXXXXXXXXXX
2. Name of respondent*	XXXXXXXXXXXXXXXXXXXX
3. Address	XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX
4. Contact phone number*	XXXXXXXXXXXXXXXXXXXX
5. Are you an individual or representing an organisation? * <i>Mark only one</i>	<input checked="" type="checkbox"/> Organisation <input type="checkbox"/> Individual ( <i>skip to next section</i> )
6. Name of organisation*	Western Local Land Services

Your details			
<b>7. Who are you representing?*</b> Mark only one	<input checked="" type="checkbox"/> Government <input type="checkbox"/> Peak representative organisation (skip to question 9)	<input type="checkbox"/> Irrigator (skip to next section) <input type="checkbox"/> Water related industry (skip to next section)	<input type="checkbox"/> Other (skip to next section)
<u>Government organisations</u> <b>8. What level of government organisation are you?</b> Mark only one	<input type="checkbox"/> Commonwealth <input checked="" type="checkbox"/> NSW <input type="checkbox"/> State – other <input type="checkbox"/> Local Skip to next section		
<u>Peak representative organisations</u> <b>9. Who do you represent?</b> Mark only one	<input type="checkbox"/> Environment <input type="checkbox"/> Irrigators <input type="checkbox"/> Indigenous <input type="checkbox"/> Other:		

Attach extra pages if required

Review feedback questions	
<b>1. Is the floodplain management plan adequate and appropriate for ensuring the effective implementation of the water management principles?</b>	<p>The vision of the Floodplain Management Plan (FMP) is to contribute to a sustainable, healthy and working floodplain by managing the development of new flood works, etc. Currently all the existing flood works centre around irrigation infrastructure (Part 6 - Existing Flood Works), with no ecological enhancement works being undertaken. A recent study has recorded 4,855 active erosion gullies between Mungindi and Wilcannia. (Pearson et al, 2022*) This large scale degradation is occurring primarily in Management Zone A, dehydrating the wider floodplain. Despite this large scale degradation of ecological assets, the FMP is not addressing this degradation issue. As a result, the FMP is not meeting its vision.</p> <p>* Pearson, M.R., Reid, M.A. Ralph, T and Miller, C (2022). Floodplain gully erosion – an overlooked source of sediment and the implications for dryland river waterholes. In The drivers and consequences of change to the physical character of waterholes on an Australian dryland river [PHD Thesis Chapter, University of New England, unpublished]</p>

Review feedback questions	
<p><b>2. Are there issues with the plan that were identified since commencement and impact on effectiveness of implementation?</b></p>	<p>Western LLS regularly undertakes rehabilitation of eroded duplex soils (Zone C) using waterponding, which is considered exempted from needing a flood works approval. Since 2017, there has been an increase in landholders in the Western region who are wanting to actively restore the degraded floodplain in Zone A. This increase in awareness has come about through the WLLS Rangeland Rehabilitation Program. However, the onerous process for flood works approvals in Zone A has created a perverse outcome where no ecological enhancement works are being undertaken in this area. This is causing frustration for landholders who are ready and able to restore degraded floodplains. The WLLS also has the capacity to support these landholders but due to funding timeframes is unable to engage in the flood works approval process.</p>
<p><b>3. Are there potential amendments to the plan that should be considered?</b></p>	<p>It is desirable for ecological enhancement works to be encouraged and any amendments should reflect this. It is noted that Part 6 may be amended to do any of the following:</p> <p>(a) add, remove or modify the types of flood works in clause 24, etc.</p> <p>Western LLS recommends the following:</p> <ol style="list-style-type: none"> <li>1) Any ecological enhancement works that restore natural floodplain patterns and processes are removed from the definition of flood works.</li> <li>2) Principles and techniques for restoring natural patterns and processes are codified.</li> <li>3) An expert panel is convened to codify the principles and techniques to meet the definition of ecological enhancement works.</li> </ol>

Attach extra pages if required

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## Additional Information

If you would like to provide any additional information in the form of supporting documents or files to help us understand your view, email [floodplain.planning@dpie.nsw.gov.au](mailto:floodplain.planning@dpie.nsw.gov.au) from the same email you provided above.

All submissions with approval for publication will be posted on the department's website after the public exhibition period closes along with the final review reports.



I N L A N D  
R I V E R S  
N E T W O R K

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ph [REDACTED]  
email [REDACTED]  
web [REDACTED]  
ABN [REDACTED]

FMP Review Submissions  
Manager Water Deliverables  
Department of Planning and Environment  
Locked Bag 1002  
Dangar, NSW 2309

[floodplain.planning@dpie.nsw.gov.au](mailto:floodplain.planning@dpie.nsw.gov.au)

Friday 20 May 2022

## **Submission to review of Barwon-Darling Valley Floodplain Management Plan 2017**

### **Introduction**

The Inland Rivers Network (IRN) is a coalition of environment groups and individuals that has been advocating for healthy rivers, wetlands and groundwater in the Murray-Darling Basin since 1991.

IRN welcomes the opportunity to participate in the 5-year review of the Barwon-Darling Valley Floodplain Management Plan 2017 (FMP). We acknowledge the Traditional Owners and First Nations people connection to the river and landscape.

The Barwon-Darling/Baaka River has suffered significant degradation over the period of European settlement. The loss of regenerative flood flows through upstream development has caused severe ecological stress to the floodplain ecosystems and dependent flora and fauna.

IRN has identified the following key issues with the FMP:

- It is critical that the local impacts of floodplain infrastructure and flood water extraction on the diminished flood flows into the Barwon- Darling/Baaka are better managed. The current rules in the designated management zones do not achieve this outcome.

- The process to assess and regulate Floodplain Harvesting (FPH) on the BarwonDarling/Baaka floodplain fails to recognise any direct impact of flood water extraction on the health of ecological and cultural assets. This impact has not been considered in the either the FMP development or FPH regulation process.
- The lack of hydrological modelling for the Barwon-Darling/Baaka is a key issue that must be addressed with urgency. The models developed to assess FPH need to be applied to the FMP to improve the flood way network mapping.
- There appears to be no clear provision to identify and remove or modify existing infrastructure that is causing ecological or cultural harm.

The FMP needs improvement to fulfill its purpose. The provisions for floodplain management under the *Water Management Act 2000* (WMA) are very specific and have not been met in all instances.

## Response to Review Questions

### **1. Is the floodplain management plan adequate and appropriate for ensuring the effective implementation of the water management principles?**

The FMP does not meet the effective implementation of the water management principles in that it fails to adequately protect ecological and cultural assets on the Barwon-Darling/Baaka floodplain. The development of the FMP has significant problems as outlined in the following issues:

1a) Socio-economic considerations in all aspects of FMP design.

The development of the FMP prioritised socio-economic impacts above the requirement to protect ecological and cultural assets. For example, the hydraulic criteria for the floodway network balanced the greatest hydraulic flood connectivity with socio-economic considerations.<sup>1</sup>

This basic underlying aspect of the FMP development has been compromised.

1b) Design floods

The use of design floods to determine the floodway network has been compromised. This has influenced the hydraulic basis for determining the management zones, rules and assessment criteria for the FMP.

The inundation extent of the large design flood (1974) was eliminated from 21% or 45,900 ha of the floodplain because of existing flood works preventing that area from flooding. These works have not been assessed for impact on ecological or cultural assets.

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<sup>1</sup> DPI Water, November 2016. Background document p22

The use of the 2011 flood as the small design flood for determining the floodway network has automatically factored in the loss of floodwaters intercepted by FPH activities that are unassessed and unrecognised in the FMP development process. The finalisation of FPH regulation in the Barwon-Darling/Baaka requires reassessment of the floodway network.

The modelling developed to assess FPH volumes extracted from the Barwon-Darling/Baaka floodplain must be used to inform the FMP hydraulic modelling. There was an indication that flood flows on some properties commenced at lower levels than those used in the FMP hydraulic model. This has influenced the determination of FPH entitlements.

The lack of assessment of impacts of FPH works on ecological and cultural assets has not been conducted through the process of regulating FPH on the Barwon-Darling/Baaka floodplain.

#### 1c) Defining FMP boundary.

The process to define the FMP boundary was compromised in that it is not based on natural landscape or water-dependent vegetation extent. Landscape features were based on infrastructure such as weirs *to assist ease of administration and to provide clarity for water users.*<sup>2</sup>

The presence of FPH works was another key criterion used for setting the FMP boundary. This was to align with the assessment and regulation of FPH works that are required to be on properties wholly or partially within a designated floodplain.

*The floodplain boundary included areas identified through the Floodplain Harvesting Project's expression of interest process for floodplain harvesting licences and potential floodplain harvesting structures.*<sup>3</sup>

This decision is at odds with the assessment process to determine volumes of FPH take that found that rainfall runoff is a key source of FPH access in the Barwon-Darling/Baaka rather than overbank flood flows.

The process used for delineating the floodplain boundary and the assessment of FPH activities has significantly compromised the FMP.

#### 1d) The FMP has failed to meet a core provision under the WMA Cl 29 (c):

*The identification of existing flood works in the area and the way they are managed, their benefits in terms of the protection they give to life and property, and their ecological impacts, including cumulative impacts.*

The FMP only identifies the approved works and furthermore fails to identify the cumulative ecological impacts.

#### 1e) The FMP has failed to effectively implement many of the additional provisions under WMA Cl 30:

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<sup>2</sup> Ibid p 15

<sup>3</sup> Ibid

- (b) the modification or removal of existing flood works,
- (c) restoration or rehabilitation of land, water sources or their dependent ecosystems, in particular in relation to the following—
  - (i) the passage, flow and distribution of floodwater,
  - (ii) existing dominant floodways and exits from floodways,
  - (iii) rates of flow, floodwater levels and duration of inundation,
  - (iv) downstream water flows,
  - (v) natural flood regimes, including spatial and temporal variability,
  - (d) the control of activities that may affect or be affected by the frequency, duration, nature or extent of flooding within the water management area,
  - (e) the preservation and enhancement of the quality of water in the water sources in the area during and after flooding,

1f) The FMP fails to meet its own Vision statement:

*The vision of this Plan is to contribute to a sustainable, healthy and working floodplain by managing the development of new flood works and amendments to existing flood works to protect the passage of floodwater through the floodplain, whilst recognising the need to minimise the risk to life and property.*

There appears to be no provisions within the FMP for identifying flood works for decommissioning or modification due to their impact on ecological and cultural assets.

1g) Inadequate rules in the Floodplain Management Zones (MZ)

The rules in the MZ fail to protect ecological and cultural assets because of the failure to identify existing infrastructure that impedes important flood flows and to recommend its modification or decommissioning.

The FMP was developed to ensure the plan reflects existing floodplain management arrangements. This locks in existing impacts from flood works that have not been adequately assessed for ecological and cultural impacts. The rules allow for approval of works existing at the commencement of the FMP. This is highly compromising and allows for retrospective approval with no assessment.

Works that prevent 21% or 45,900 ha of the floodplain from flooding, thus influencing the extent of the large design flood, have not been assessed for their impact on ecological and cultural assets.

Rules in all MZ allow for new infrastructure development. This issue must be addressed.

1h) Approved works

At the commencement of the FMP 44 approved works were identified including above ground channels, levees and embankments and storages. There is no indication of the number of unapproved works.

The capacity for approved and unapproved works to extract flood flows through FPH activities has not been identified.

The automatic approval of flood works that existed at the time of the commencement of the FMP is a flawed process that does not account for the influence on natural flood flow patterns.

## **2. Are there issues with the plan that were identified since commencement and impact on effectiveness of implementation?**

### 2a) FPH activities

IRN strongly objects to the NSW Government policy that allows lagoons to be used as storages for FPH licencing approval. The impact of this activity on the environmental values of lagoons in the landscape as drought refuge and habitat for a range of native flora and fauna species, including threatened species has not been assessed in the FPH regulatory process.

Lagoons have very high cultural significance in the landscape. This value has also been ignored in the FPH regulatory process.

The identification of works associated with FPH extraction from lagoons and their ecological and cultural impacts, and their impedance of flood flows has not been assessed.

The link between FMP and FPH under the Healthy Floodplains Project has been severely compromised at the cost of protecting significant environmental, cultural and social values.

All lagoons should be protected under MZD.

### 2b) FPH modelling

The models developed to determine individual property access to FPH in the Barwon-Darling/Baaka have used different hydraulic information to that used to develop the FMP.

In many cases access to flood flows are lower than the FMP hydraulic model. This requires an update of the FMP models to include new information and to redetermine the floodway network, the influence of FPH on the small design flood and the likely impact on ecological and cultural assets.

### 2c) Clear delineation of MZ areas for implementing FMP rules.

The implementation of current rules in the five different MZs within properties that overlap different MZs is unclear and unreported. Mapping for the implementation of the FMP rules must be more readily defined and transparently available.

## **3. Are there potential amendments to the plan that should be considered?**

### 3a) Rescoping of the floodway network using new information.



3b) Specific identification of works to be decommissioned or modified to improve flood flow and inundation of key ecological and cultural assets.

3c) Stronger rules in MZA and MZD prohibiting new works. Rules in all MZ allow for the application for new works. It is also noted that all MZ contain ecological and cultural assets.

i) MZA rules do not protect important flows in the major discharge areas of the floodplain and must be strengthened. This includes the identification of existing works that impede flood flows to ecological and cultural assets.

FMP Cl 38 allows for the construction of:

- (a) an access road,
- (b) a supply channel,
- (c) a stock refuge,
- (d) an infrastructure protection work,
- (e) an ecological enhancement work,
- (f) an Aboriginal value enhancement work, (g) a heritage site enhancement work.

The rule includes various height restrictions, management of soil disturbance and area of property involved in the construction of flood works. The implementation and regulation of these rules over the 5-year application of the FMP have not been provided.

FMP Cl 39 allows for exemptions from rules under Cl 38 and automatic approval if the work was constructed at the commencement of the FMP. This is a significant problem with the FMP in that it does not identify or require decommissioning or modification of existing works that impede important flood connectivity flows.

FMP Cl 40 only protects 'adequate' flood connectivity to ecological and cultural assets. 'Adequate flood connectivity' is not defined in the FMP dictionary. The size of flood used to assess 'adequate' flood connectivity is at the Minister's discretion.

Cumulative impact assessment focusses mainly on landholdings.

The rules in MZA must be stronger to ensure better ecological and cultural asset protection.

ii) MZB rules – do not protect flood storage and secondary discharge areas

The rules do not define the type of flood works that can be constructed. They allow for higher maximum height above natural surface level and no requirement for advertising or assessment under certain conditions.

These rules allow for ongoing unassessed impacts on flood flow patterns through the landscape.

iii) MZC – flood fringe and flood protected developed areas.

These rules do not define the type of flood works that can be constructed and have no height restrictions. The key emphasis is on impacts on landholdings and existing infrastructure.

There is no provision for approval of existing works at the commencement of the FMP. All unapproved works must be identified, assessed for ecological and cultural impact and have a requirement for modification or decommissioning.

These rules allow for ongoing unassessed impacts on flood flows through the landscape.

iv) MZCU – urban areas managed by Local Government

Managed under the same rules as MZC.

v) MZD – Special protection areas – less than 1% of floodplain area.

The rules do not provide for the purpose of MZD which is to protect specific ecological and cultural assets that are subject to very frequent inundation and have high value.

The rules allow for approval of works existing at the commencement of the plan and for the following infrastructure to be approved with no height restrictions or management of soil disturbance:

- (i) an infrastructure protection work, or
- (ii) a stock refuge, or
- (iii) an access road, or (iv) a supply channel.

All new works should be prohibited in MZD and all unapproved works or works impeding flows to these assets to be decommissioned or modified.

The lagoons assessed for licencing as FPH storages should be protected as special areas within MZD.

For more information about this submission please contact:

