## **River Reflections Conference** 2024 – Early Insights Paper Workshop Report

Murray–Darling Basin Authority

3 July 2024





**Nous Group** acknowledges Aboriginal and Torres Strait Islander peoples as the First Australians and the Traditional Custodians of country throughout Australia. We pay our respect to Elders past, present and emerging, who maintain their culture, country and spiritual connection to the land, sea and community.

This artwork was developed by Marcus Lee Design to reflect Nous Group's Reconciliation Action Plan and our aspirations for respectful and productive engagement with Aboriginal and Torres Strait Islander peoples and communities.

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### **1** Introduction

On the 19<sup>th</sup> and 20<sup>th</sup> of June 2024, the Murray-Darling Basin Authority (MDBA) hosted its annual two-day River Reflections Conference in Albury. This was an opportunity for all partners – individuals, businesses, government agencies, peak bodies - to come together to explore key themes associated with the management of water resources in the Murray-Darling Basin.

The theme of this year's Conference was centered around looking at *the art of the possible* when tackling complex problems and using the *wisdom of the collective* to shape a way forward together.

The program featured a series of presentations, networking opportunities, an interactive workshop, a field trip, and an optional dinner. It was also an opportunity for the MDBA to launch their Basin Plan Review Early Insights Paper (EIP).

Nous Group (Nous) was engaged to facilitate the interactive workshop session, focused on the EIP, on the morning of Day 2 of the Conference. The objective of the workshop was to facilitate interactive discussions about the EIP and its role in the Basin Plan Review by:

- Distilling initial impressions and reflections on the EIP.
- Convening a panel discussion about how the EIP supports the review.
- Unpacking what is meant by a 'healthy Basin'.

This short report summarises the outputs of the key discussions of the EIP workshop and associated preworkshop activities.

### 2 Pre-workshop activities

During Day 1 of the Conference, Sir Angus Houston, Chair of the MDBA, launched the Basin Plan Review (BPR) Early Insights Paper. The purpose of the EIP is to share the MDBA's current thinking on some of the Basin's most complex challenges. In his address, Sir Angus noted how:

- The EIP is part of the MDBA's commitment to be open and transparent about the issues that they are grappling with.
- Thoughts and ideas from the Conference participants on these issues will help shape the 2026 BPR.
- The MDBA will continue to work to create constructive relationships, build trust, and elicit feedback as it listens and consults with the Basin community.

His closing remark was that, in short, the Basin Plan Review will be undertaken *with* Basin stakeholders, not *to* Basin stakeholders.

Sir Angus' launch of the EIP set the tone for the EIP workshop on Day 2.

In advance of that, Nous facilitated two short pre-workshop activities.

The first of these, at the end of the afternoon of Day 1, was a brief introduction to the workshop objectives for Day 2. This included an introduction to Slido, an online audience interaction platform, through which participants were asked:

"Tell us which objective you are most interested in tomorrow?"

There were 170 responses to this question from the online and in-person audiences, with the results reproduced in Figure 1 below. There was overwhelming interest in the third objective, *Unpacking what we really mean by a 'healthy Basin'*, with 75 per cent of the votes.

This pre-workshop activity concluded the conference for Day 1, leaving the audience a couple of hours to continue reflecting on the EIP Summary provide to participants, and perhaps walk along the Yindyamarra Sculpture Walk during sunset before returning for the Conference Dinner.

#### Figure 1 | Slido results from multiple choice quiz about workshop objectives



#### slido

Over the Conference Dinner, Nous facilitated the second pre-workshop activity – the development of an interactive historical timeline to celebrate the depth of Basin management experience in the room.

Participants were asked by a show of hands to identify how long they had been involved in the management and care of the Basin.

Nous then invited the participants with the longest and shortest involvement in the management and care of the Basin to stand together at one edge of the room, and then for the remaining participants to find their place in a circle around the edge of the room according to length of involvement, using the person with the longest involvement (more than 50 years) and shortest involvement (just a few days!) as their reference points.

At this point, we acknowledge that when talking about time involved in managing and caring for the Basin, it is important to recognise the more than 60,000 years on of continuous care and connection to Country by First Nations people.

Participants were then asked to discuss with their 'cohort' (the people next to them):

"What have been the most significant events and milestones during your involvement in managing and caring for the Basin?"

In plenary, a sample of participants from around the circle shared their perspectives, and these were recorded on a timeline, reproduced in **Figure 2** below.

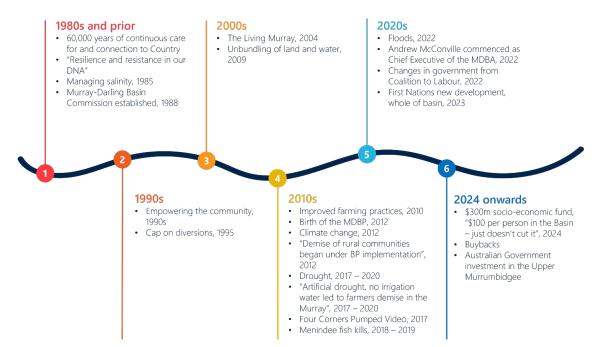
Some interesting observations:

- Time involved ranged from just six days to more than 55 years!
- The median number of years of involvement and care, i.e. at the halfway point around the circle, was 20 years.
- There was approximately 5000 years of experience in managing and caring for the Basin in the circle a lot of collective wisdom!

MDBA Chief Executive, Andrew McConville, observed, in his closing remarks how this underlines that:

"It is our collective responsibility to take our collective experience and use that power to drive the change that we need to see in the future, to deliver rivers for generations".





## 3 Distilling initial impressions and reflections on the EIP

Day 2 of the Conference began with the EIP workshop. As a brief warm-up activity, participants were invited to complete a Slido word cloud with the prompt:

Reflecting on yesterday, capture your impressions of Day 1 in a word or short phrase.

The results of the word cloud are captured in Figure 3 below. 184 participants across the online and inroom audiences responded, some providing multiple responses, with key themes from Day 1 presentations featuring prominently e.g. the importance of effective collaboration for getting traction on the complex problems of the Basin.

#### Figure 3 | Word cloud to capture initial impressions of Day 1

Reflecting on yesterday, capture your impressions of day 1 in a word or short phrase Wordcloud Poll 284 responses 8 184 participants



#### slido

The substantive part of the EIP workshop began distilling initial impressions and reflections on the EIP, and its summary of the five key issues the MDBA is currently grappling with, in this part of the BPR i.e.

- 1. Accessing environmental outcomes
- 2. Climate change and preparing for our future
- 3. Moving beyond 'just add water'
- 4. Managing the northern Basin
- 5. Building on, and simplifying the Basin Plan

In-room participants were asked to first introduce themselves to their table, and then to discuss:

"What are your initial impressions of the EIP?"

At the same time, online participants were asked to contribute their responses to the same discussion question on a Slido Ideas Board.

In the plenary discussion that followed, participants were given the opportunity to share their responses.

Key points from this discussion:

- For many, their early impressions of the EIP were positive people reported that it seems to highlight the important issues, and the broad direction of the BPR. In particular:
  - There was broad support for the idea of moving beyond 'just add water' e.g. native species losses caused by predators need action outside of water management.
  - People appreciated the recognition of differing complexities in the northern Basin and the highly regulated southern Basin, although increasing integration and connectivity remains important.
  - Some were pleased with the acknowledgement of First Nations but noted it doesn't go far enough - First Nations people will need to be 'front and centre' in decision-making to address imbalances.
- Some participants called out what seemed to be key gaps in the EIP on a first read:
  - A number expressed concern about native fish populations, and the fact there wasn't an obvious pathway for native fish recovery "water is life, fish kills mean the river can't support life."
  - Some pointed out that economic interests need to be considered more explicitly in conjunction with the environment enhancing regional economies is important (e.g. note food security risks).
  - Others pointed out that the EIP doesn't appreciate we have an incomplete system it seems to miss private storages, and the gaps in the system of weirs and locks.
- Others focussed on the challenges of engagement fatigue, and how MBDA can best collaborate effectively with communities on this aspirational but challenging list of issues. They suggested:
  - Provide clear guidance and timeframes for how community feedback can influence decisions (with examples), including how this feedback sits alongside scientific/political considerations.
  - Publish some form of 'collaboration map' that clarifies the respective roles and responsibilities of key parties in the BPR (e.g. MDBA and CEWH) to improve collaboration and engagement.
  - Design engagements to work with people's values and emotions e.g. one group noted the mental health impacts of *"watching a dying river system"*.

Online responses were largely aligned with the in-room audience reflections, with positive reflections including:

- Strong support for moving beyond 'just add water', and appreciation for the recognition of non-flow measures to ensure a healthy environment.
- Support for the proposition to employ an implementation method that uses the best information we have now and adapts as we move forward.
- Overall, an EIP that articulates a "good set of principles and provides a clear direction".

Online responses also identified areas for improvement and development, such as:

- Greater emphasis and attention on prioritising fish populations (aligned with in-room sentiments!).
- There was a question about whether we have sufficient data to meet the commitment to bring in more science.

• Concern that there was no commitment to deliver the Basin Plan in full, and whether that means we are accepting emerging short falls.

Nous recorded responses on a whiteboard during the session and then included participants' sticky note responses to the whiteboard after the session. The responses are captured in Figure 4 below. A closer look at the impressions, including the online responses in the Ideas Board are recorded in Appendix A.

| Structure from Sciences   | and the second   |  | LADIES O  |   |          |
|---|--|--|---|---|----------|
|   | Alexandra and a second and a se | And the second s | Rect and to the second | De advantadore<br>La contrational<br>La contrational | ad minds |
|   | · highlights important issues  | IAL IMPRESSIONS OF THE . more than just add water  |   | need to consider the economy in computation with the awironment   |          |
|   | <ul> <li>recognises northern Basin is<br/>different - how to integrate with<br/>southern Basin?</li> </ul>   | <ul> <li>First Nations perspective needs to<br/>be heard more</li> <li>addressing imbasances</li> </ul>  | <ul> <li>Moving beyond just add water is gazed</li> <li>No pathway for native fish recovery<br/>in this plan.</li> </ul>  | now do ne work with peoples emotions and<br>volues?<br>need to consider critical mass and<br>instrial (beyond just water) for fish speci-<br>instrial (beyond just water)   |          |
| The second se | gaps in storage and irrigates<br>pood what touches on climate<br>change<br>need to morease connectivity of<br>north and south Backs<br>incomplek system  | · community has engagement forgue<br>where does community feedback fit w<br>·harn to see demonstration of han<br>community feedback is included<br>· What is the plan to achieve all<br>esprations?  | <ul> <li>Nater policy</li> <li>mental localth impact of watching<br/>a failing river system.</li> <li>correcting wrong information and data<br/>oread to recognize food security risk</li> </ul>  | support an implementation, that gets or<br>with it with the information we have<br>now.   |          |
|   |  |  |   |   |          |

#### Figure 4 | Initial impressions of the EIP responses

# 4 Convening a panel discussion about how the EIP supports the Review

The second objective of the EIP workshop was to generate a panel discussion to enable stakeholders to ask questions about the EIP and how it supports the BPR.

The panel members were:

- Andrew McConville Chief Executive of the Murray-Darling Basin Authority
- Tim Goodes Executive Director, Basin Plan Division
- Grace Mang General Manager, Basin Plan Review Strategy & Integration Branch

Nous invited Grace, Tim and Andrew to make opening comments about the EIP and its role, and to discuss their reactions to anything raised in the previous session. Key points from their opening comments:

- Andrew addressed the questions about transparent and effective community engagement by:
  - Highlighting the MDBA's strong commitment to building collaboration and incorporating community feedback.
  - Demonstrating how previous feedback from the recent Basin Leaders Summit had informed the EIP, and confirming how feedback from this Conference will also be used to shape the BPR.
  - Noting the limitations of what the Basin Plan can and cannot do, and how members of the Basin need to manage expectations of what the MDBA can achieve.
- Tim responded to some of the key points from the previous session:
  - Reinforcing the importance of managing expectations around the MDBA's sphere of influence, and of being clear about where they are seeking to play.
  - Pointing out how the MDBA's new approach to sharing information creates more opportunities for keeping interested people informed along the way and incorporating their feedback.
  - Addressing the topic of sustainable diversion limits in the BPR, including confirming that while these decisions are made for the next ten years, the MDBA's perspective is much longer.
- Grace related the purpose of the EIP to the art of the possible and tackling complex problems:
  - Recalling how the Basin Plan originally had a narrower scope based on a response to the millennium drought, but the EIP is probing to see which issues are now a priority for community.
  - Highlighting that what may appear as 'aspirational', as per initial impressions of the EIP, is more about MDBA probing where the possibilities are for exploring complex problems.
  - Recognising, on the topic of 'just add water', there are spaces such as holistic land and water use that are firmly within the state wheelhouse yet are connected to the outcomes of the Basin Plan.

Meanwhile, all online and in-room participants were encouraged to type any questions into Slido's Q&A function and then vote up other questions that interested them.

Nous led the Q&A by asking the panel the most upvoted questions. There were 88 questions loaded into the Slido Q&A function, of which six were answered in plenary. A full list of the questions with their respective scores from upvoting is recorded in Appendix B.

The following are key takeaways from panellist responses to the questions answered:

## "How will equity be facilitated for facing that First Nation's never ceded water and need to be front and centre and not just one person on board and committees?"

- The MDBA appreciate the need more First Nations representation in governance generally, but also note the MDBA is adding another First Nations MDBA board member.
- Currently, First Nations' involvement is not threaded right through the Basin Plan the MDBA is seeking a more complete representation of First Nations throughout all steps of the Basin Plan.
- In the spirit of a more transparent approach, the MDBA appreciate they haven't arrived at where they need to be on this challenge but are taking new action such as the reset of First Nations engagement.

## "When will better fish management be included?" and "Under a Native Fish Recovery Strategy we desperately need funded fishways at Menindee. How do we make this happen?"

- Feedback on the EIP so far highlights that the approach to native fish populations is a gap, but there are a few actions being taken to address this e.g.:
  - A Sustainable Rivers Audit next year with a fish indicator component.
  - The BPR could address how effective fish strategies have been in the Basin Plan so far.
  - The Native Fish Recovery Strategy developed by the Australian Government in partnership with Basin state governments, is also under review.
- It may be that this approach is fractured, and the Conference feedback seems to be highlighting that fish recovery needs packaged strategies that work together to create positive outcomes at Basin scale.
- The federated system plays a role in the fractured approach to fish recovery strategies, with the MDBA sitting in between state departments that are responsible for different strategies.

#### "How can we keep the community productively engaged?"

- The MDBA outlined existing engagement mechanisms that the MDBA has introduced over the last couple of years, and will continue to utilise and lean on, such as:
  - The Basin Community Committee, who represent communities right across the Basin.
  - Regional Community Forums, which occur across the Basin half a dozen times a year.
  - Meetings with peak, industry and NGO bodies that occur a few times a year.
  - The First Nations Leadership Group, which feeds into the outlook for next year (as an example of a different approach to First Nations engagement).
- The MDBA reinforced their openness to engagement, highlighting entry points through the REO network, website links to express views and ask questions, as well as direct approaches!
- Andrew noted that he spends about 50 per cent of his time doing regional tours as part of the MDBA's commitment to community engagement.
- Re consultation fatigue, the MDBA is working to be more respectful of the contribution of communities e.g. beginning engagements by confirming what they have previously heard to demonstrate they are actively listening and to avoid going over the same ground.

## "Great to see we're moving beyond just add water – will Basin funds be made available to support other NRM activities such as fishways, riparian, pest plants and animal management, etc?"

- The MDBA doesn't have 'buckets of money' the MDBA role is to provide advice to Government about changes to the Basin Plan so that it can better reconcile with broader issues.
- In *moving beyond 'just add water*', the question the MDBA is asking is how they can better give weight to that aspiration through the Basin planning framework, rather than through funding.

• Recommendations to Government may suggest additional funding, as part of the MDBA's 's oft leadership' approach to influencing, but the regulatory framework is the primary focus of the BPR.

#### "Why was the EIP not released a week ago, so we could really review and give feedback in this session?"

- The MDBA committed to releasing the EIP at this Conference as an obvious place to have the first conversations, and to do the initial testing, with community, on the issues the MDBA is grappling with.
- The MDBA stressed how this is just the first opportunity to discuss the EIP, and how there will be many more opportunities for feedback to shape the BPR.
- For example, Andrew outlined the several regional tours planned over the next six months where the EIP will be discussed, as well as continuing conversations through other engagement channels.

### 5 Unpacking what we really mean by a 'healthy Basin'

The final session of the interactive workshop began by recapping some of relevant key take-aways of the recent Basin Leadership Summit, namely while there was broad agreement at the Summit that healthy communities and healthy rivers are a common aspiration, a healthy Basin looks different to different people – capturing some combination of economic, social and cultural ambitions.

Basin Leaders concluded that we need to reach a shared understanding of the meaning of these words and ensure the associated outcomes and indicators are crafted in ways that 'speak to community'.

Responding to the challenge, the final objective of the EIP workshop was to unpack what is meant by a 'healthy Basin' to better understand how the key elements of a healthy Basin are different for different people.

Nous first invited participants to consider:

"What does a healthy Basin mean to you?"

Individually, in-room participants wrote their responses on sticky notes, while online participants used a Slido Ideas Board to record their answers. Nous collected both the sticky note and online responses, which are included in Appendix C. Nous grouped the sticky note responses into 16 themes, noting there was a high degree of overlap between themes. Table 5, within Appendix C includes the number of responses per theme, with the most common themes noted as:

- Balance, 25 responses.
- Sustainable ecosystems, 25 responses.
- Thriving economies, 24 responses.

Participants were asked to share their responses with their table, or in the case of online participants, to read other people's responses, and then to discuss:

"What are the key takeaways from this review of the different descriptions of a 'healthy Basin?"

In plenary, participants were then asked to share their key take-aways. Key points from this discussion:

- For some participants a healthy Basin is defined in **environment/ecosystem** terms e.g. it's about allowing rivers to be rivers, lakes to be lakes and wetlands to be wetlands.
- For other participants, a healthy Basin is about economic and social outcomes e.g. supporting thriving, resilient, engaged communities, featuring strong regional growth and sustained employment.
- But for many at the Conference a health Basin connects these elements e.g.
  - A healthy Basin (or Healthy Country) involves combining all the elements of land, water, people and community, it is about *"thriving communities, both human and non-human"*.
  - It is about connectivity, across: rivers and flood plains; communities and decision makers; the environment and irrigators; north and south; water systems and the broader catchment.
  - It is all about working together to deliver a healthy environment, healthy river, strong regional communities, and productive regional economies.
- Others offered different angles on what a healthy Basin is:
  - *Fish:* Can we use a single indicator i.e. fish a great way to communicate the value, condition and health of the Basin (more fish means better water quality, less algal blooms).

- *More about the characteristics of decision-making* i.e. transparent monitoring and research; alert to the dangers of bias; learning from the from mistakes of the previous Basin Plan.
- *It's ultimately about resilience* e.g. a healthy Basin is capable of coping with extreme climates to provide services for the community.
- *Sustainability* e.g. it is about an efficiently supported working mechanism of natural capital that has the regenerative capacity to support people, place and purpose without compromising itself.
- *Everything in balance* e.g. resilient to threats, sustainable processes, longevity, healthy relationships, checks and balances, for the environment, community, industry and First Nations.

Nous recorded a high-level summary of the responses shared in plenary which are captured in Figure 5 below. Table 1 also contains a typed list of the responses captured in Figure 5. Online responses to key takeaways of a healthy Basin were captured in a Slido Ideas board, recorded in Appendix D.

Figure 5 | High-level summary of the key takeaways about a healthy Basin shared in plenary

| WHAT ARE THE   | KEY TAKEAWAYS ABOUT   | WHAT WE MEAN BY A HE  | ALTHY RASTN?   |
|--|---|---|--|
| team from lessons of hit basin plan<br>healthy environment                       | · wealthy and resilient " weather.  | healthy = longevity, resilience   | Connectivity diversity of ecosystems   |
| ·strong regional communities   | not poor maler quality or algae<br>blooms effective leadership                                    | A Constant of the Dat Malan   | . future minded sustained live had   |
| whole basin perspective thriving human and                                       |   | - communuties, thriving a engaged   | incremsed regional growth and<br>recreational use of Basin<br>limite drange<br>fishway needs funding adapted |
| productive communities non-human<br>communities<br>engagement at the local level | of healthy  | -long term sustainable environment<br>-purallel aspirations in basin plan   | fishway needs funding adapted  |
| · healthy country (land & community)   | · rivers and wetlands are distinct<br>collaborative model d'engagement<br>· consider change trust |   |  |
|  | alliciant respectful  | And the second se | objectives prosperous community a<br>attention to fish environment   |
| monitoring of feedback strong inicipaled Ag sector                               | ·political decision to scientific problem   | transparent decision making<br>sustained employment and growth  | alert to the danger of bias-need all views   |

## Table 1 | Typed responses of high-level summary of the key takeaways about a healthy Basin shared in plenary which are captured in Figure 5

| Key takeaways  |  |
|--|--|
| Learn from lessons of the 1 <sup>st</sup> Basin Plan | Respectful   |
| Healthy environment                                  | Political decision to scientific problem           |
| Strong regional communities                          | Healthy = longevity, resilience                    |
| Whole Basin perspective                              | Basin = environment, communities, First<br>Nations |
| Productive communities                               | Connectivity                                       |
| Thriving human and non-human communities             | Communities are thriving and engaged               |
| Engagement at the local level                        | Long-term sustainable development                  |
| Healthy Country (land & community)                   | Parallel aspirations in the Basin Plan             |
| Partnerships with local communities                  | Sustainable support for Basin communities          |

Key takeaways

| key lakeaways                                 |   |
|---|---|
| Monitoring of feedback                        | Transparent decision making                             |
| Strong irrigated Ag sector                    | Sustained employment and growth                         |
| Healthy and resilient                         | Diversity of ecosystems                                 |
| No dead fish                                  | Whole of Basin approach                                 |
| No poor water quality or algae blooms         | Future-minded   |
| Effective leadership                          | Sustained livelihood                                    |
| Noting people have different ideas of healthy | Increased regional growth and recreational use of Basin |
| Rivers and wetlands are distinct              | Climate change adapted                                  |
| Collaborative model of engagement             | Fishway needs funding                                   |
| Consider change                               | Relaxing flow constraints to achieve objectives         |
| Trust   | Prosperous community and environment                    |
| Efficient, regenerative                       | Attention to fish                                       |
| Alert to the danger of bias, need all views   |   |
|   |   |

This activity concluded the EIP workshop.

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# Appendix A Distilling initial impressions of the EIP responses

#### Figure 6 | Initial impressions of the EIP - sticky notes captured from white board Part 1

| Abarry articulate the<br>advancy articulate the<br>extent to which more<br>water will be required<br>and where. And<br>What barehts can be<br>dewind there on ground<br>works and changes to | define what x mennil G<br>by healthy working<br>viver - & set target to<br>to aim for Coulliple<br>trouliones (ie. Syr - 500) | ive clavity + certain ty<br>industry to allow<br>here to plan +<br>adapt.   | EIP<br>River health came<br>up as top priority<br>Flood plain harvesting<br>attects RH   |
|--|---|---|--|
| Baseline for accessing<br>outcomes.<br>Economic impacts are<br>mitigated through   | ey Snepparton Vs Cobram   | MDBA has not valued<br>genuine community fout<br>purtneships + Early<br>insights Poper subject<br>charges but Need the adder<br>mistoles in Bion Plan   | Greater Emphasis on Engagement<br>will First eatons and intention<br>to reflect (kin: interests & nghts i)<br>a positive first step<br>EIS<br>=> Raisee aspirational list of<br>issues, had bot but,   |
| transition support<br>Monoging beyond jud add wate (<br>Taking baby steps forward  |   | TABLE 12 ISSUES WITH EAD<br>Failure to address the issuest anatalas<br>contained = Bain Plan # 1.<br>"Climate change Discuss of Beaun   | ? MUBA cognity to call book<br>on successfully on all these<br>too complex of on observational   |
| Challenge<br>hav to keep people engaged<br>There offer seems to be a battle<br>between economy and the<br>environment, in which the<br>environment alloways lobes. It                        | Need local community<br>level engagement +<br>a facilitator/lead for  | Climate change Discuss in South<br>"Climate change does not keeping<br>a How to Re build Trust"<br>THOLE 12 ECP ISSUR<br>Dissaported<br>Frows on climate change<br>Frows on climate change                                | - There is a how in Asheds<br>of uselor took in Asheds<br>to supporting bosinesses<br>- The next toord of by backs<br>hold be not difficult<br>- Those to are the type of<br>by backs are the type of  |
| was branch without a great<br>economy. This identifies and<br>underlying and ongoing problem<br>that has resulted in the estrome<br>bie are now attempting to might                          | ruter operations.   | 970005 on Civille Resilience<br>- Risks - Reduces Resilience<br>- Preparent<br>- Preparent<br>- Jiepartuess - Reduces Resilien<br>- Jiepartuess - Reduces<br>- Ji decland adutte<br>- Jid reduction<br>- TVHELL ETP JSUES | <ul> <li>b) Can see some algorit</li> <li>b) top conversions to</li> <li>appendix (apply)</li> </ul>   |
| backwards and that a great<br>environment will support, fester<br>environment will support, fester   | -flooday elevated risks<br>-robord water availably upsited by<br>Climate change.  | -Fear in vegered comments.<br>- A let of unknowne<br>- which will committee look the<br>- strong consoled social feco<br>merced.  | - good bate averely<br>- good to see averely<br>- |
| ⇒ scale of previous focus (<br>on unler recovery )<br>⇒ Early insignts good to see shall   | - Improve the recognition of<br>social t economics issues fixed<br>by regrand communities                                     | - Speel out the few Colleborat<br>more of in factor the offer a very<br>Rist Nation - State<br>more for the factor - State<br>more for the factor of the factor   | had lighter is life and fish kills @   |
| - see aligned with words<br>but concented to a<br>- water quary, would of the<br>people to the toble<br>ELIP<br>Economics doern't  | - my local commonthes have  | - constraints<br>highly modifiable<br>environment   | EIP adknowledges<br>Challenges, including<br>perceptions of improfis   |
| feature, need mot<br>Basin communities   | Complexity.<br>Lots of Queerions Auto   | Insights  | a solution a trajection to kaneere<br>volumes and advised on the values<br>storages and delivery is important<br>The EP takes on integrated approach<br>that integration but commonly  |
| have active and iny of<br>the deliver and iny of<br>all water, not being<br>addressed.   | How to we get the Arswer<br>How to we Frenchme<br>Englishme   | finding a belance.<br>Mindustries moduly from   | D Social and Co  |

| Are we engaging the<br>"city" voters in the<br>Discussion?<br>- food security /cast.<br>- environmental tagets/values.<br>- First Nations equits.   | EIP<br>Less scientists more<br>neople working with<br>community  | Nice words<br>expect to<br>hear   | First Improsons<br>Table 21.   |
|---|--|---|--|
| Support<br>integrated<br>Management focus   |  | Joined up basin.<br>disconnect between<br>North + South.  | Fluffy,<br>flowery   |
| Generally positive<br>about EIP<br>'Just add water"   | - being very horest this time<br>- stor we don't have the<br>- wan people brare bits table<br>By Concern that is how<br>high charge is needed                              | R Southern highly<br>requilated as<br>opposed to northern.  | no acknowledgement<br>on what<br>ton be required.  |
| - still a norrow hows<br>and end of document<br>has a disclaimer only<br>helates to water. Weble<br>of environment sing land<br>people all need to included   | - The has been shortenings<br>- The about the<br>- we need to know by now<br>- There are any board shibent<br>- Poeple denunitiestshold he<br>- Poeple denunitiestshold he | Acknowledgement<br>"Stulled if up"  | Positive Northern Basin<br>is actionalledged as different<br>to southern Basin but<br>how clocs this Hanslate    |
| There is a distinct ommission<br>of the environmental opportunity<br>irrigation brings in this whole<br>discussion - via channel delivery<br>on farm apportunity-famers<br>grow staple foods you eat every<br>day and protect the environment<br>Thisle 12 EED ESSORS | Bosin Flan<br>- Javid be a good<br>balance between flexit  |   | to Next Boom Plan.<br>Need to consider the<br>Socio and economic<br>outcomes that haven't<br>been achieved along |
| World cement and build on<br>existing mistakes in the Basin Plan<br>Need MDBA to lead   | B ridd.<br>(Hore reablis)<br>in WRPs).<br>Smplify basin plan, cantsay.   | Are we open to charging<br>targets and vision of<br>Basin?  | More RI<br>Concern about<br>a tome of EIP  |
| a procent to Guild<br>Fishways @ Menindee<br>NO MORE FIFH KILLS!  | simplify basin plan cantony.<br>nove on from wher.<br>too many moving parts  | - Mary tours are aging<br>and tours are bong<br>there vibrance (Finky)<br>doe to previous program   | may need to give<br>and not water  |
| Important to recognise<br>physical form of<br>river system  | need to hear from youth   next gen.  | Con see alignment<br>with views<br>-roce oway for volones<br>good<br>- but also need to recorr<br>- but also need to recorr<br>-7 Need to create allege | USERS (1011gators)<br>We need an honest conversation<br>for all wens.  |

#### Figure 7 | Initial impressions of the EIP – sticky notes captured from white board Part 2

|   | 2020 fires always<br>ined.<br>What hyperged 1985.<br>I Southan technos.<br>Al ruser boatworters<br>affected.<br>Concromental courses<br>for the Back corress<br>and Back and and<br>Back and and and<br>Constants of the<br>Mark Concernent<br>Cours Same in theory<br>for Same in theory<br>for Same of the for got<br>the same of the for got | Need to<br>consider<br>the many<br>patheo invited<br>in the Pasin<br>with Masin<br>with manycount | What is the role of<br>MOBA is jurisdictions,<br>communities a industries to<br>implement the actions?<br>Thood signal that it takes | legis ation needs<br>to be<br>amended.<br>Gederal legislation<br>busin legislation |
|---|---|---|--|--|
| ore you talking<br>about.<br>Timing of this<br>review -   | Question.   | - Pocus a supply  | more than water - there is<br>Cwth \$ to support that<br>alongside state/territories.  | how to come together?.<br>take out politics.                                       |
| 2006 fell in the<br>middle of an extender<br>drought<br>2026 - followst 3+br<br>of wet weather. | What happens<br>to important<br>issues outside<br>these Skey  |   | Understandays of Dimectan  |  |
| of net weather.<br>Reple may be more<br>giving during good<br>times:                            | issues.<br>Such as<br>Such as<br>Such al  | - energy ??<br>- ulat ebe is<br>coming ??   | Nice EARLY START<br>to the<br>Review   |  |
| Liked Simplifying<br>a Complex<br>-plan - did   | for will some desired<br>environmental outerer<br>not be sustainable<br>under climate change  | the Basis Water   | hook brwant<br>to a generism review  |  |
| advicing good<br>outcomes   | x a process to<br>potentially change<br>environmental entenen<br>and lo-propose na<br>outcomes.<br>Need honest conversely   |   | A better "environment"<br>to rationally review and<br>develope pathways forward  |  |

#### Figure 8 | Initial impressions of the EIP – sticky notes captured from white board Part 3

#### Table 2 | Online responses to initial impressions of the EIP discussion question

| What are your initial impressions of the EIP?  | Upvotes |
|--|---------|
| Encouraging that it finally recognises the critical importance of non-flow measures to the health of the Basin environment   | 12      |
| It's good to see a key theme "moving beyond 'just add water'. For too long many have oversimplified what we are seeking to achieve with a healthy working River  | 7       |
| We need an implementation commitment that moves forward with the best<br>information we have now, and that adapts as we go along. Otherwise, we risk more<br>years of science and thinking without much learning by doing. Just send it. | 6       |
| No firm commitment to delivering Basin Plan in Full; moving beyond just add water might imply accepting the emerging shortfall   | 5       |
| Commitment to bring in science but has sufficient data been collected  | 5       |

| What are your initial impressions of the EIP?  | Upvotes |
|--|---------|
| Put the fish first- if we improve the system to allow fish to improve, wouldn't everything else also improve? A simple focal point for all- fish.  | 5       |
| Better management of flows.  | 4       |
| Commitment to open consultation in contrast to BP#1  | 4       |
| I don't believe the wider community or "customers" that benefit from our waterways<br>are at a point to accept that First Nations people and how we successfully managed<br>the water should be reintroduced. How can it be enforced without pressure? | 3       |
| Commitment to revised timelines  | 3       |
| keen to get on with it   | 3       |
| Early Insights is a good set of principles and provides clear directions - well done   | 3       |
| Bullet point two - "Identify" for First Nations - it's not "implement". That's not good<br>enough  | 3       |
| Nexus between hydrology and ecology should be better understood for more accurate assessment of environmental outcomes moving forward into the future  | 3       |
| Allows for greater management and understanding of the Northern Basin and encourages the CEWH to continue to trade water for environmental benefits apart from just adding more water.   | 2       |
| Focus should gradually shift from water recovery to water delivery considering operational aspects of the river system and pro-active management of recovered water from system perspectives needed.   | 2       |
| Simplifying the plan sounds good in theory but it is addressing a naturally complex problem - how can it be simplified meaningfully without being reductive of the problems we face?   | 2       |
| Integrated Land & Water approach is supported particularly for complementary<br>measures but addressing over-allocation requires a firm 'top down' commitment.<br>Complementary measures need to remain complementary similar to TLM not instead       | 1       |
| Will the locations from which existing water was sourced be acknowledged in<br>quantity and reliability? This is important to demonstrate transparency and fairness. I<br>haven't had opportunity to read the EIP                                      | 1       |
| Dealing with constraints seems too hard  | 1       |
| Simplifying the plan will be difficult without simplifying the governance.   | 1       |
| Why do so many people, especially northern and eastern region irrigators still not<br>understand why S.A. must have water flowing out the mouth of the River Murray to<br>keep the river alive? The water which reaches S.A. is much lower quality.    | 1       |

| What are your initial impressions of the EIP?  | Upvotes |
|--|---------|
| Great to see the northern Basin in EIP. We are seeing far too many cease-to-flow<br>events - water for the environment is not enough to address this. We need to see a<br>truly connected Basin.   | 1       |
| The EIP shows that there is a long way to go   | 1       |
| You haven't mentioned pandemic and the different impacts it had on Basin communities and its industries.   | 0       |
| We need to give equity - equal say - to ALL communities along rivers.  | 0       |
| When 70% of our food is exported, we aren't facing a food security issue - we are facing a food-profit issue. Fully agree that we cannot allow this to be a political football again   | 0       |
| Need for equity in facing First Nations never ceded water and need to be front and center and not just one person on board and committees.   | 0       |
| Taking an integrated approach to water management is essential as is the commitment to engage about decision making.   | 0       |
| Water is only one system that is transitioning, this will impact how, and when water is<br>used - this isn't really acknowledged. How do we keep emerging users like energy<br>(hydrogen, nuclear etc.) off the river, how thirsty will they be? | 0       |

## Appendix B Panel discussion questions

#### Table 3 - Answered panel discussion questions

| Question   | Upvotes |
|--|---------|
| Great to see we're moving beyond just add water - will Basin funds be made available to support other NRM activities such as fishways, riparian, pest plants and animal management etc.? | 33      |
| Why was this not released a week ago so we could really review and give feedback in this session?  | 28      |
| When will better fish management be included?  | 27      |
| How can we keep the community productively engaged?  | 26      |
| How will equity be facilitated for facing that First Nations never ceded water and need to be front and center and not just one person on board and committees.                          | 22      |
| Under a Native Fish Recovery Strategy, we desperately need funded fishways at Menindee. How do we make this happen?  | 22      |

#### Table 4 | Unanswered panel discussion questions

| Question   | Upvotes |
|--|---------|
| How will the voice of younger people be captured? How do they see their lives and futures in the Basin?  | 31      |
| Food security isn't addressed  | 28      |
| Remember that the water for the environment in the Basin Plan is the very bare minimum that is needed. The science said that much more is needed.  | 28      |
| Where are the economic studies on regional and national outcome, cost of living, food security and national security   | 23      |
| How are you going to synthesise opposing views to work out a way forward?  | 22      |
| With respect to moving beyond 'just add water', what is the strategy to effectively manage water quality and associated riparian management within the Basin? Is there an opportunity to collaborate with agencies outside of the Water Act? | 21      |
| How much ground truthing is done to confirm modelling?   | 19      |
| Why is there a distinct lack of the environmental opportunity irrigation brings through dual purpose water via delivery channels and on farm opportunity in this whole discussion?   | 18      |

| Question  | Upvotes |
|---|---------|
| How do you think the average age in the room affects the advance of these issues? How do you think we can bring more younger people to the table?   | 16      |
| The early insights paper seems to gloss over the significant risks to agriculture communities and the environment, why are you not being more courageous?   | 14      |
| Will the numerous constraints in the many rivers in the Basin be addressed to allow the CEWH to make full utility of the entitlement?   | 14      |
| Is the 450 GL still needed?   | 13      |
| How are we weighing up first nations and western science at equal weight at every stage of the review?  | 11      |
| What is the actual integration between the MDBA community, adaption, flexible etc and the actual delivery approach of the Department. Seems to be misaligned and therefore erodes trust and creates confusion? Who is in control really??       | 11      |
| If I wasn't a water person but was trying to understand the issues and opportunities would this document help me to understand the role of water, the challenges and opportunities.   | 10      |
| How do we go about showing Basin communities how little water is actually flowing through the Murray Mouth? Connectivity needs to increase rather than decrease to keep the system healthy for all users!                                       | 10      |
| We need to get rid of the carp. Not only do they undermine our rivers they undermine the outcomes you are getting.  | 10      |
| From Carol in S.A. Why do so many people still not understand why a highly contaminated and salt laden river needs to be flushed out of the mouth to ensure its survival. Why is not a differential rate charge for high Vs poor quality water? | 8       |
| How will the important issues outside of the 5 key challenges be addressed and dealt with?  | 8       |
| How do you envisage addressing complexity, by going beyond basic metrics (i.e. 'just add water'), while still 'simplifying the Basin plan'?   | 8       |
| The Southern Basin has done the heavy lifting to date. I'm concerned the Northern Basin has been treated differently for so long and as a result avoided returning water to the system.   | 8       |
| How can we improve water literacy; particularly the recognition of how rivers flow and connect from the upper rain-fed areas down to the arid lower reaches which totally depend on connectivity?   | 8       |
| The removal of the water rule from ACCUs and large scale reveg projects. What are the other opportunities e.g. Nature Repair Market and how this could help or hinder freshwater use and ecosystems.  | 7       |

| Question  | Upvotes |
|---|---------|
| We just heard that the current Basin Plan relies on "wrong" facts. What opportunities will<br>there be to test and build trust in the science underpinning the review? How do we<br>overcome the challenge that people aren't persuaded by facts? | 7       |
| What is a healthy river? How is this being measured? What is a resilient and thriving community? How is this being measured?  | 7       |
| There were some fantastic examples of the difference that the BP has made - how do you ensure the messaging speaks to the successes as well as the challenges so you bring people along - saying it is worth it.                                  | 7       |
| Where is energy in this? Many proposed technologies need lots of water (hydrogen, nuclear etc.) this could fundamentally shift demand and who can pay.  | 7       |
| Have you considered that - we may already know everything we need to do, and how to do it, but the barrier actually is - creating a sense of destination for everyone can comprehend and get behind? (Healthy Fish)                               | 6       |
| How does the plan maximise the opportunities of climate change eg. increased, less frequent high rainfall events.   | 6       |
| Removing the threat of water recovery from communities will set a much better scene for a collaborative framework focusing on significant environmental outcomes.   | 6       |
| Socio and economic is not mentioned as a measure with environmental outcomes. They are intrinsically linked. In the EIP summary "maintain healthy rivers that support resilient and thriving communities", how/where to measure in the review?    | 6       |
| The Basin Plan was drawn up during the millennium drought but since then we've had<br>three significant flow events; do communities still recognise the need to address historic<br>over-allocation?  | 6       |
| How are the multiple competing priorities- environment, cultural, agriculture, tourism, economic weighted in terms of decision making? And is this weighting process transparent?   | 6       |
| Communities are suffering - is this the Basin Plan, or is it more than that?  | 5       |
| To fix the Rhine River in Germany industry and towns were required to have their water<br>off takes downstream of their sewerage discharges. Would a similar approach focus<br>everyone on what the real issues are, especially Canberra?         | 5       |
| Yesterday Tim Jarvis raised the spectre of possible 3.9 C degrees average temp rise by<br>end of the century. This timeframe is within my kids' theoretical lifetimes. What does this<br>mean for the next Basin Plan?                            | 5       |
| Will there be any push to the states to ensure accurate metering on all our farms and environmental uses?   | 4       |
| Should the Plan better harmonise with the MDB Agreement   | 4       |

| Question  | Upvotes |
|---|---------|
| Bias and lack of political courage, the absence of representatives is obvious and a serious failing in regional and national democracy  | 4       |
| How can we address the drying of the floodplains without dealing with constraints? - small no regrets steps?  | 4       |
| The EIP does not recognise the Basin Plan target was a massive compromise for the environment. Industry now asking to reduce recovery further is frustrating.   | 4       |
| Why do we only focus on environment vs irrigation? No mention of dry land agriculture, tourism, employment in fishing etc. All of which rely on a healthy river system.   | 4       |
| Nuclear or renewables?  | 3       |
| Those in SA relate to "just add water" as it is NEVER acknowledged that the Lower<br>Murray is a virtual sewer drain compared to the system enjoyed in the Northern Basin.<br>Why is water quality not a focus?                         | 3       |
| Considering the negative environmental impact of monocultures, what role do you see agroforestry playing in the future of water efficiency management?  | 3       |
| A sustainable Basin needs integrated catchment management. What is possible within a water management tool to achieve this?   | 3       |
| Water equity is an issuecity folk take it for granted - is it time we tackled preparing them for drinking recycled water?   | 3       |
| How can landscape repair and rehydration be incorporated (e.g. Northern Basin) to contribute to habitat restoration (for fish and other native flora and fauna) and increase biomass production and deliver natural capital?            | 3       |
| What is done to ensure diverse and marginalised voices are represented in community engagement and what plans do you have to make this more equitable?  | 2       |
| Can the MDBA take a leadership/coordination role in implementing whole of catchment / integrated catchment management strategies? Even if responsibility for implementing some strategies lie with other agencies, e.g. managing pests. | 2       |
| Will the plan link to policy or plans that do cover what is not included?   | 2       |
| How do you think communities will respond to the review of the BP? Particularly those who feel they haven't been listened to or heard.  | 2       |
| Could you please expand on the commentary on page 21 regarding potentially changing environmental and/or proposing new outcomes.  | 2       |
| What does the process of reconciliation look like, when not if, certain SDLAM projects are not delivered by the deadline?   | 2       |
| Can anyone at some stage reflect that time for change needs to reflect the science that shows that transformation needs time.   | 2       |

| Question  | Upvotes |
|---|---------|
| How do we ensure efficient deliverability of water for all users right across the Basin? In particular solving the Barmah Reach challenges  | 2       |
| Is Slido just another form of failed consultation technology, giving us the illusion of being heard but actually distracting us from the task at hand and listening to each other?  | 2       |
| How come there is no mention of farmers the nation's food producers or water for critical human needs mentioned in the Early insights paper?  | 2       |
| Where are the farmers and irrigators in the plan? Water is going to come from them but that's not acknowledged, and neither is the environmental benefits they create on farm and through the system                                    | 2       |
| How will you engage with Governments through a likely review of the Snowy system to<br>ensure we can look for opportunities of a better joined up approach between BP and<br>Snowy?   | 2       |
| There is a point to update the word to modern day, not Basin (which has no life) and update to the word Biosphere.  | 2       |
| The Basin Plan from the very beginning considered communities, community impact and socio-economic impactshow do you see measurement and consideration of SE impacts within the review? Healthy Basin means environment and people.     | 2       |
| How do we connect urban Australia better with rural Australia and stop the disparity between the two?   | 2       |
| Were the 2012 SDLs wrong? Do we now know more?  | 1       |
| How does eco trend analysis accommodate the dynamics of recent multi-seasonal climate?  | 1       |
| Will changes to the IGA on water sharing be needed to assure connectivity?  | 1       |
| Climate change is a focus in the insights document, but does that align with what was heard at the leadership summit? If not, how will you address that?  | 1       |
| If water quality becomes a central focus, the issues of native fish and environmental flows will in part solve themselves. Some managed "environmental flows" do not mimic what happened historically 50 years ago - why?               | 1       |
| Why is there no mention of property rights?   | 1       |
| How will the MDBA develop and implement a relationship of reciprocity between the<br>environment and economy, between industry and community and between local,<br>regional, state and federal governments, departments and legislation | 1       |
| Can better protection of held environmental water be better assured; particularly in the water sharing plans?   | 1       |

| Question  | Upvotes |
|---|---------|
| Flow constraints are an essential part of the Basin Plan. What is the engagement process for the development of the flow constraints road map to ensure this road map identifies practical solutions that can be successfully implemented?      | 1       |
| When will you address the deliverability/sharing issues that face the Murray especially with increased newly developed permanent plantings outside existing irrigation areas that are competing with delivering e water and existing irrigators | 1       |
| Basin plan 1, it is not a whole of Basin approach, & focused on Murray River to increase flows to south Australia. Basin plan 2 builds on multiple mistakes, reduces social, economic and environmental resilience in Murray Valley             | 1       |
| Why isn't the on-farm environment considered when 93 % of the Basin's Wetlands found on privately owned farmland?   | 1       |
| What is the MDBA 's role, activities and engagement in headwater catchments? Healthy headwaters are important, but rarely acknowledged in BP conversations.   | 1       |
| Why aren't the asked questions being shown on the overhead screen?  | 1       |
| Economy or environment - which one is more important to the other?  | 0       |
| The process listed in the EIP is fine. Get on with the job.   | 0       |
| Will the assessment of the effectiveness of SDLs consider the appropriateness of how they were originally calculated?   | 0       |
| My understanding is that the NFRS has not been funded by the Commonwealth for 2024-2025. Is this correct? If so, why has the Commonwealth taken that approach?  | 0       |
| What do you think a "healthy working Basin" look like under an "extreme dry" climate future?  | 0       |

## Appendix C Responses to what do we mean by a 'healthy Basin'?

#### Table 5 | Number of responses per theme from 'what does a healthy Basin mean to you?'

| Themes                 | Number of responses |
|------------------------|---------------------|
| Balance                | 25                  |
| Sustainable ecosystems | 25                  |
| Thriving communities   | 24                  |
| Waterways              | 17                  |
| Resilience             | 16                  |
| Connectivity           | 16                  |
| Leadership             | 15                  |
| Future-focused         | 11                  |
| Water is life          | 11                  |
| Economy                | 11                  |
| Equity                 | 10                  |
| Fish                   | 9                   |
| Working together       | 9                   |
| Agriculture            | 5                   |
| Adaption               | 5                   |
| Miscellaneous          | 6                   |
|                        |                     |

| WATERWAYS   |  |  |   |
|---|--|--|---|
| Healthy Basin.<br>- Naturel water flows<br>- lower imparts con around<br>lower and rising water flows.<br>- more wethand flowing that.<br>- carp free. for fish to<br>marine an easi a control bard.<br>stog-liftices a provision forced. | viers that flow<br>banks that are stable<br>flora and fauna<br>connected<br>communities supported<br>by  | RIVERS THAT ARE ALLOWED<br>TO BE RIVERS.<br>LAKES MO WETLANDS.<br>LAKES AND WETLANDS.                  | Rivers sustain healthy<br>Populations of aquatic<br>spears, flood, move and<br>are not threathed by<br>People.  |
| Flow constraints<br>in the Murray,<br>Goulburn + M'biolgee<br>resloved  | Connormer Query FLOD WITH MARKE<br>RESORDES TO LIGET THE REPUTE<br>MENTS OF ALL STRUCTURES.<br>(LANNE, COMMUNITY, FRUTHOUSHIND, INDUSTR<br>CTO)  | - writer appliet.  | extensive mark repairing your<br>where the riser is face to mo<br>across the flood plain, that so<br>the full suite of biolant of fly<br>repairing a comblance of the<br>non-twent by director in regime,<br>to subamably support basis rooms |
| End of system<br>flow targets for<br>each niver system<br>Integrated water<br>sharms plans.   | Equitable staring to promote<br>licatily writer with permeate<br>health throughout the Barinderston<br>and leyal<br>- Social - neoting places which<br>promote health well have<br>- trigging - Health well have | Healthy Laborarys<br>and Communitings<br>with Jubs, Eduction<br>intope + Foud+Rec<br>Hope nul Dispoir. | A River that<br>flows top to<br>bottom flowing<br>out the 'bodiness'<br>out the mouth.  |
| All rivers with minimum base<br>flows plus, mail to medium<br>overbank flows to flood-<br>plain and wethards<br>to support river communities  | Implementation of<br>large-scale river<br>works (riverbank<br>remediation) that<br>enhance habitat &<br>cultural values  | -slow water flow rate -<br>down.<br>-alower flow rate.<br>-alowe synties to healthy<br>basen.          | Wetlands that are healthy.<br>No fish kills .<br>Food security  |
|   |  |  | Bari Pla flus TABLE 12<br>Danney the PM<br>- bank exosion<br>- sand slong<br>One rives to use flower to delived<br>flass to she around encode damag   |

#### Figure 9 | Healthy Basin definitions grouped by 'Waterways'

Figure 10 | Healthy Basin definitions grouped by 'Balance'

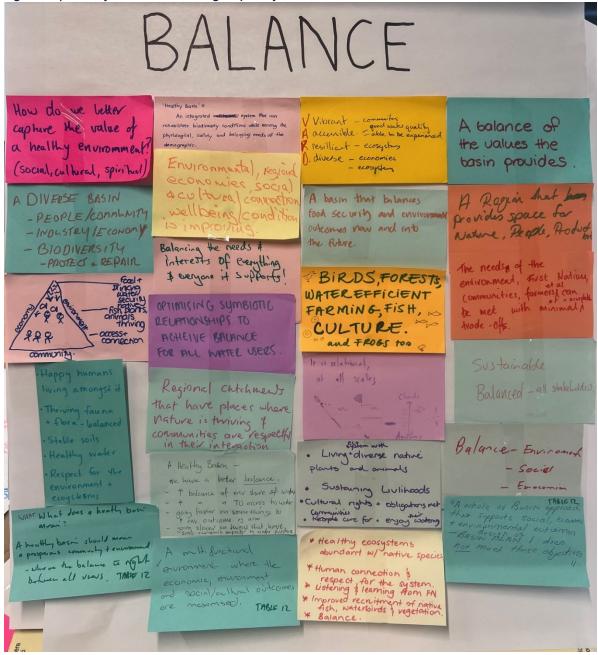


Figure 11 | Healthy Basin definitions grouped by 'Resilience'

| RESILIENCE   |  |  |   |
|--|--|--|---|
| A basil that there is good durk<br>tures, and is resoluted in difficult<br>traces (brought, flood)<br>Resilient Ecosystems<br>A hear your/Storen/<br>Since/Storen/<br>Resilient functioning<br>value dependent<br>ecosystems<br>Reconstructional<br>Need to endertail<br>wate Rules<br>Alexander Changes<br>Need to endertail<br>wate Rules<br>alexander Changes<br>Need to endertail<br>wate Rules<br>projects already<br>morry<br>Changes the dogs<br>Mistale are<br>nucle | Define:<br>- everything in belance<br>- resilient to threats<br>- sustainable processes.<br>What is <u>Haalthy</u> ?<br>XE way thing in balance<br>x Resilient to threats<br>x Sustainable processes/<br>x heatthy to balances.<br>A heatthy basin supports<br>come and waterways<br>people 3 ecology.<br>Inning folying & birds<br>esslient & connected community<br>trosperity & tope for the future | Diverse + restiont<br>agtent + communities.<br>Resilient bain having<br>captulity of coping with<br>extreme climate to continue<br>provide services for the<br>content of community<br>- A diverse, functioning river<br>system capable of separing<br>a range of native species<br>- A system that is resilient to<br>change (people, environment)<br>- A train of repedfil, connected<br>a train of repedfil, connected<br>communities of<br>the action ecosystems that<br>supports people, industry<br>a culture. | A basin that is<br>able to bounce back<br>from floods, droughts<br>and extreme events etc<br>(i.e. a resilient basin)<br>Anitoric to changing<br>Climate: |

Figure 12 | Healthy Basin definitions grouped by 'Thriving Communities'

## THRIVING COMMUNITIES

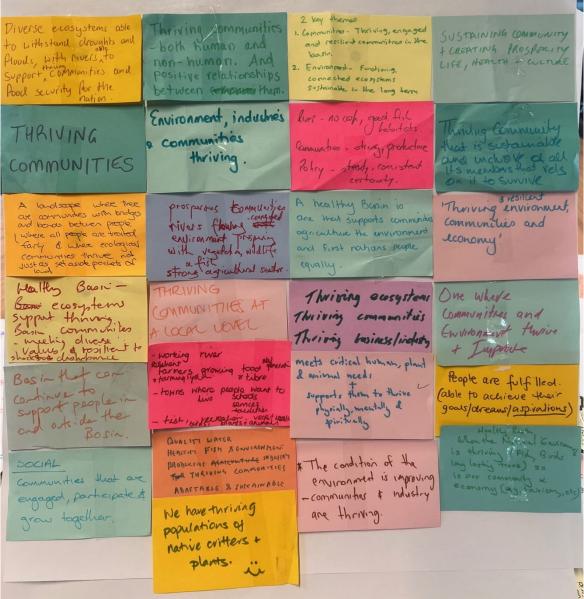


Figure 13 | Healthy Basin definitions grouped by 'Sustainable Ecosystems'

| SUSTAINABLE ECOSYSTEMS  |   |   |  |
|---|---|---|--|
| A hulthy Losin" is one<br>that keeps on giving<br>sustainably !   | ENVIRONMENT<br>self sustaining populations<br>of water dependent<br>native species.   | + Susteinethe<br>+ log-term<br>+ Good nate small 3, suitable<br>for bints to live<br>A Respect  | DIVERSIFIED<br>ECOSYSTEM<br>(SELF-SUSTAINED)   |
| healthy fish, widlig, trees<br>flava & faum.<br>A place weat the and<br>choose to live cause it<br>sustains life, includighteres  | We can feel good<br>about the state of<br>the system<br>("the vibe")  | Economically 8.<br>Environmentally<br>Sustaindale<br>Communities  | Functioning<br>ecosystems in<br>all Basin niches.  |
| A subtainable government<br>A healthy basin provides<br>what I believe to be<br>a subtainable tog crosylten<br>that supports multiple competing<br>uses while maniferthing a<br>high diwish and binness of metrics.<br>A subtainable government<br>and diwish and binness of metrics<br>and diwish and binness of metrics.<br>A subtainable government<br>and diwish and binness of metrics.<br>A subtainable government<br>and diwish and binness of metrics<br>and diwish and binness of metrics<br>and diwish and binness of metrics<br>and anoreal government<br>and anoral government<br>officiently designed working<br>mechanism of natural<br>capital that has the regen-<br>grative capacity to support<br>people, place and purpose<br>without compromise of Hself. | HB<br>Secure Food<br>sources<br>Productive niver<br>systems that<br>sustain life - both<br>humans + other organism<br>HERLAY RIVERS + BASIN<br>MERRYS SUSTAINABLE<br>FOOD + BILL PODULATIONS<br>ALLS AND COMMENTING<br>ALLS AND COMMENTING<br>CB. | A FULLY SELF-SUSTAINING<br>SYSTEM.<br>A HEALTHY BADIN CAN<br>SUSTAIN THE ECOSYSTEM<br>AND THE LIFE WITHIN<br>IT. HAVE A PELATIONSHIP. | Ahealthy busin means a basin<br>that supports a functioning o<br>resilient environment, with<br>communities & reclustry that<br>are sustainable.<br>healthy soils plants, directe<br>animal enmannibes (incl.<br>humans)<br>A sustainable river<br>system which will<br>support a enable<br>sustainable ammunities<br>Surlainable ammunities<br>Surlainable ammunities |

Figure 14 | Healthy Basin definitions grouped by 'Water is Life'

| WA-   | TER IS  | LIFE   |  |
|---|---|--|--|
| Water is a critical<br>human need for<br>Survival.<br>Driving water<br>Food production<br>Food production<br>Community Well being<br>Heilthy Heilther Environment<br>all need consideration | Sufficient quantity<br>à quality of water across<br>the Basin to provide for<br>e-mounities, agric à industry<br>à environment. | in preste happy  | Healthy communities<br>Need healthy<br>Worter<br>No matter where in the basin you<br>live topor Bottom |
| good quality water<br>available to all.<br>"Good Weber guelthy<br>Well prescaled orphics zon<br>with tring and under story<br>and estached with looke<br>arith her lith Light population    | supports " Lower anouts of life<br>it is no longer healthy  | Drinking-life<br>Forming-life<br>Fish & an other onimols<br>Recreation<br>Culture<br>Hearth environment<br>Theorem Staceson Recovery |  |

#### Figure 15 | Healthy Basin definitions grouped by 'Fish'

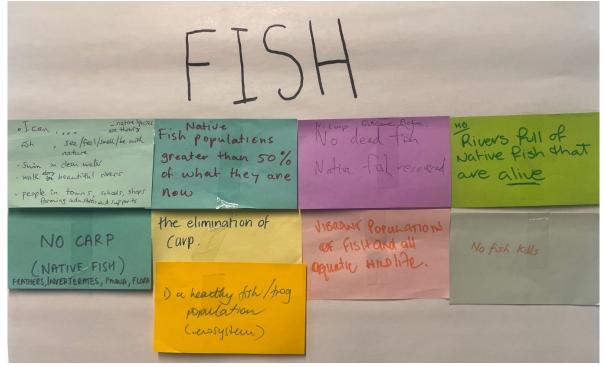


Figure 16 | Healthy Basin definitions grouped by 'Leadership'

| LEADERSHIP  |  |   |   |  |
|---|--|---|---|--|
| <u>Attentiveness</u><br>Tech (worker guality, biodiversity)<br>Saft (communy, first Nations)<br>Regular monitoring, adapting, value<br>appreciating | Are we arling too much of<br>MOBA to "solve" a wicked<br>democratic problem<br>10 Avoid THE HUNDER CAMES<br>CARITOL & DISTRICT 13<br>SOLAR BARAKDOWN   | MDBA Londership<br>to phase out<br>high water users a<br>create new economies                               | Why can't MOBA have<br>fuding & influence<br>non-flow NRM in the Basin<br>- the model may need<br>to change.                    |  |
| Less merendron<br>Need one body running all<br>water in hushatia.<br>Not what & federal.  | porrallel as prational<br>Basin Plan thats sati<br>-faith vision for fleatthy<br>Basin will NRM focus<br>with concret targets &<br>necessary funding long term   | addressing the myriad of<br>issues so that the basin<br>Sustains as all. Drinkable<br>water etc everywhere. | COMMUNITIES BEING<br>ENPOWERED TO<br>MENAGE WATER + PROJECT<br>- CHAMPEONS LEADER TO<br>LECACY OUTCOMES<br>- ABOTTON VE APROACH |  |
| Bonderberg planing<br>management of<br>de Bonaris Water<br>Resources  | Honest connection between<br>Research, MONITOLING<br>AND DECISION MAKING<br>Need a target to<br>Clarify where we are<br>going. Using words<br>like "maintain, improve<br>protect, restore" leave<br>uncertainty. | state - national.   | EFFECTIVE<br>LEADER SHIP<br>HEALTHY BASINS<br>At all levels<br>All things in Balance.)  |  |

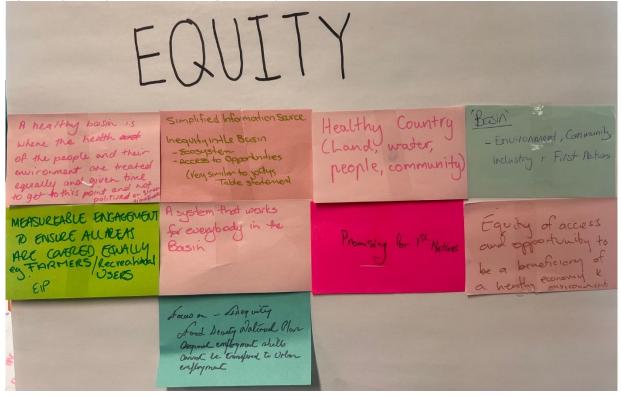
Figure 17 | Healthy Basin definitions grouped by 'Agriculture'

AGRICULTURE Phase out crops that are not suited to our low water county (Not cotton, rice, say) Atmands. A system of Bolonced # Noted A Barra Hat is healthy Water is fit for not aly colonimity, but also productive agriculture and communities. purpose. This will allow agriculture and torreco-torrism to floorish good for neutral H Resarce the ming. Strong regional communities up under pinned by a strong peroting in a healthy lands landsage operating i.

Figure 18 | Healthy Basin definitions grouped by 'Working Together'

WORKING TOGETHER A healthy basin is one WATER Stakeholders working together Collaboration that actively and purposef. LIVERS ENNIRON MELT W a single uision - listing PEOPLE between competing prossures + requirements and relationshups that are dependent upon it d hearing & undestanding FOOD + FIBRE collective atome PRODUCTIVE + ADAPTIVE MONSTELES TURSLE 12 we need to respectfully -Haolthy environment, healthy communities, healthy industry healthy fict Nations. Mr All working together to collectively deliver the above. Need a collaboration foster an efficiently engagement under + approch Sally approx has been all min. MREA approx has been all min. The allowate proble ( This) reciproral velationship essential place of ecosyst between Environment and Economy. talked about "whole parties to but tees to correct to but he to made Industry and Community

Figure 19 | Healthy Basin definitions grouped by 'Equity'



#### Figure 20 | Healthy Basin definitions grouped by 'Economy'

| ECONOMY   |   |   |   |
|---|---|---|---|
| An indicator of a<br>"healthy basin" would<br>most likely be increased<br>regional growth-reduced<br>rural depopulation | Phase out of high water<br>crops to<br>NEW Reavontes<br>(Like Coal phased).   | A thriving natural<br>environment that<br>supports a poductive and<br>diverse economy   | sustainable irrigated<br>Sector and a thriving<br>Oh farm environment<br>supporting bio-diversity<br>It can be done !!!                                       |
| Lust wetlands,<br>strong rive laws,<br>Itiong economic outcomes<br>Healty ecology.                                      | ECONOMIC<br>Sustainable economie<br>growth for a diversity<br>of enterprises. | A heatthy basin is<br>one that supports<br>local economies and<br>provides minimal<br>environmental needs.  | How can any of this<br>happen when the<br>most important pillar<br>to the HOGA / Water owners<br>is the almighty Dollar.                                      |
| 0. 14   | A healthy environment<br>that underpins health<br>people & economies          | Heathy, Growing, Areving<br>Bearing rature and Searty<br>Dearing rature and Sydney, Mall<br>& mylogenet Sydney, Mall<br>Alfonte driversonal mail 12 | After A3 Billion being<br>spend it would seem<br>the view of a health of<br>passin is a wirnig margin<br>in Sa hold seats alvid<br>has european style rivers. |

Figure 21 | Healthy Basin definitions grouped by 'Connectivity'

| CONNECTIVITY  |  |   |   |
|---|--|---|---|
| a connected river system<br>that supparts the<br>communities (both natural<br>and human) that rely<br>on it                                 | Move beyond the singular<br>focus on water recovery that<br>huts communities, and<br>refocus on integrated<br>land and water pranagement<br>to get enduring environment<br>improvement.  | * Connected Floodplain<br>* Fish populations<br>* Heally vegetation.  | Connected, flowing rivers<br>that support wildlife,<br>cultural needs and healthy<br>productive communities |
|   | Providence of the stand of the second of the | Connectively at +4<br>Culturel Loudscoper.  | What the water is<br>flowing & system connects<br>to the sea, we have<br>a living system.                   |
| A healthy bastn is<br>one with connectivity,<br>and healthy native<br>wildlife.   | CONNECTIVITY - between<br>flocolplains + rivers<br>between communities + river han HA<br>between irrighters + onliver mant   | waterways and environment   | - longevily<br>-food security<br>- Relationships<br>- Connected<br>- Ongoing monitor<br>- avdit + Review.   |
| Healthy Basin?<br>: Drought secure.<br>: Graceded Ploodplains<br>: Varnäble Plood frequency<br>: pest Pree.<br>: clean water- (no publicid. | Gractivity = Working<br>+ contains<br>+ Between rivers + freeplains,<br>+ Between communities +<br>decasion makers<br>+ Between Enviro + Inflators<br>+ Between Enviro + Inflators<br>+ Between Works Misteries<br>+ Between Works Misteries<br>+ Between Works Misteries  | Connected rivers and wetland<br>Connected people and<br>communities<br>Re-Connected First Nations into<br>Management of land gwater |   |

#### Figure 22 | Healthy Basin definitions grouped by 'Adaption'



Figure 23 | Healthy Basin definitions related to 'Future focused' theme

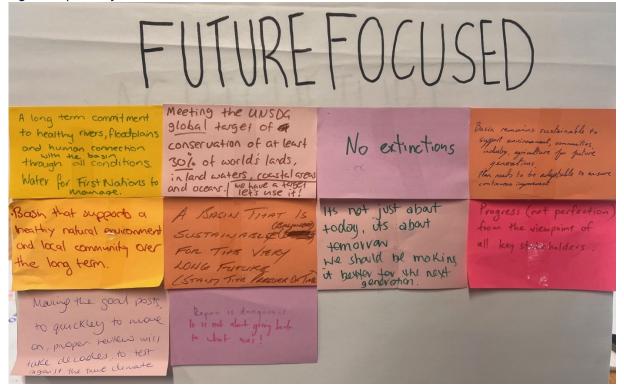


Figure 24 | Healthy Basin definitions grouped by 'Miscellaneous'

MISCELLANEOUS One where water Restore the IT'DEPENDS issues are not degradation in the media Health Compared to what ... Change now His hard for Nater from a dead "Basin in the wisc words of Proft Brian Thompson. for the Environment to a living "Bios to be the answer to all problems like Nator quality.

#### Table 6 | Online responses to what is meant by a 'healthy Basin'

| What does a healthy Basin mean to you?  | Upvotes |
|---|---------|
| Sustainable balance between water use for economic, environmental, and cultural purposes  | 8       |
| CRCFWE 2002 healthy working river n a managed river in which there is a sustainable compromise, agreed to by the community, between the condition of the natural ecosystem and the level of human use.                    | 5       |
| Connected, flowing rivers that support wildlife, cultural needs and healthy productive communities.   | 4       |
| Plants, animals and humans can coexist with the existing water supply without destroying<br>each other.   | 3       |
| Maintains as close to natural flows as possible, supports diversity, provides clean water and resources for humans, flora and fauna.  | 3       |
| Fish passage through the whole system, with no carp/redfin/gambusia etc.  | 3       |
| Meaningful at the whole-of-river scale. These properties can be synthesised in five system-<br>level categories: flow volume, flow distribution or pattern, flow variability, connectivity<br>flow-related water quality. | 3       |
| FISH doing what fish do, optimising of conditions that exist now, so we can make gains without huge investment in infrastructure.   | 3       |
| Ensure sufficient water for environment by effectively implementing water sharing plan  | 2       |
| One that sustains aquatic life successfully and naturally across the Basin  | 2       |
| Means the sustained recovery of our fish and birds species and other aquatic ecosystems that rely on the river system. When the river system is healthy - everyone else benefits.   | 2       |
| A healthy Basin is where communities, culture, environment and production are sustainable, valued and supported.  | 2       |
| Healthy waterways and communities with jobs education food and recreation. Hope not despair   | 2       |
| A thriving biosphere, where all native plants and animals, for the planet and people to survive and thrive.   | 2       |
| Healthy Basin means productive, resilient & prosperous environment, communities & industries.   | 2       |
| From top to bottom rivers and waterways all healthy quality and resilient and can recover quicker after dry times.  | 2       |
| More water for the environment but enough left for farmers, community and culture   | 1       |

| What does a healthy Basin mean to you?   | Upvotes |
|--|---------|
| "DEFINITION OF A HEALTHY WORKING RIVER Watershed February 2002 (newsletter of<br>Murray-Darling Freshwater Research Centre)<br>https://ewater.org.au/archive/crcfe/freshwater/publications.nsf | 1       |
| All rivers healthy enough to be able to swim in and drink from.  | 1       |
| No more flood plain harvesting   | 0       |

# Appendix D Key take-aways of the 'healthy Basin' discussions

#### Figure 25 | High-level summary of key takeaways of a 'healthy Basin' captured in plenary

| WHAT ARE THE<br>learn from lessons of 11 bain plan<br>healthy environment<br>strong regional communities<br>whole basin perspective thrining<br>productive communities non-human<br>engagement at the local level<br>healthy country (land & community<br>partnerships with local community<br>monitoring of feedback and with | <ul> <li>Wealthy and resilient to usualish.</li> <li>not poor water quality or alpae<br/>blooms effective leadership</li> <li>noting people have different ideas<br/>of healthy</li> <li>vivers and wetlands are distinct<br/>collaborative model of engagement</li> <li>consider change trust</li> <li>ellipent connective repetiful</li> </ul> | - sustainable support for busin communities<br>transparent decision making | connectivity diversity of ecosystems while of Basin appreciate |
|--|--|--|--|
|--|--|--|--|

#### Table 7 | Online responses to key takeaways about a healthy Basin

| What are your key takeaways about a healthy Basin?   | Upvotes |
|--|---------|
| We need to be brave. The ongoing fish kills are a result of poor water management. Let's either fund an adequate fishway at Menindee, or remove the whole structure! We can't continue with inaction.  | 15      |
| Relax flow constraints in the Murray, Murrumbidgee and Goulburn rivers so environmental water can be used more effectively and BP objectives can be fully achieved.  | 12      |
| Fish are a great vehicle to communicate the value, condition and health of the Basin system.   | 11      |
| Fish deaths don't create the action they should. If there were large areas with dead<br>livestock land that can't sustain life as it once did, everything would change. Its concerning<br>water that can't sustain life isn't causing more reaction. | 9       |
| A danger of bias due to the perspectives of those who could turn up at such an event. The<br>environment is not strongly represented, noting it was at the priority in the 2007 Water<br>Act.  | 5       |
| There must be monitoring with feedback loops and not set and forget management of waterways and more diverse range of concerns including environment not just turnover of local economy.   | 4       |
| Healthy living rivers with seasonal flows as once happened half a century ago!   | 3       |
| We all share unique views on what a 'healthy', Basin is, perhaps it's more important to focus on what our common ground is.  | 3       |
| Bank damaging activities such as wake boarding and water skiing should be restricted to areas where banks are stabilised and managed yet why is this not happening?  | 2       |

| What are your key takeaways about a healthy Basin?   | Upvotes |
|--|---------|
| Different perspectives, most are wholistic, but a range of different social and individual values on what a healthy Basin means.   | 1       |
| Only people over 70yrs can remember how many of the rivers once looked when native fish were abundant as well as yabbies and tortoises (now "turtles") - while States act in their own best interests how can the whole Basin be a priority? | 1       |
| Everything   | 0       |
| Can someone please direct me to the list he was referring to with regard to the Healthy Basin?   | 0       |
| The question is an admission that the system is sick   | 0       |
| There seems to be a growing consensus but perhaps some subtle different interpretations.<br>Is there agreement on giving up any rights?  | 0       |
| Relax flow limits = people's property floods   | 0       |
| Focus on word 'healthy': everything in balance; resilient to threats; sustainable processes.   | 0       |
| Society and the economy both depend on a healthy environment and living rivers so why does government try to give them equal weight?   | 0       |
| Some fish kills (small) and algal blooms (again small) are part of the natural system - but<br>it's the size and frequency of these events that indicates if its natural or driven by an<br>unhealthy ecosystem.                             | 0       |
| I am greatly concerned that issues raised at the Narrabri 'Reflections' conference have still not been addressed. Too much talka talka and not enough action.  | 0       |
| Need more integrated planning and policies nationwide. Why spend a fortune on platypus research in Vic or NSW while in Qld a monster dam is planned on the upper reaches of the Pioneer River that will impact platypus on Eungella Plateau? | 0       |