

# Macquarie River Re-Regulating Storage Project



## Summary of discussion and Actions taken from Stakeholder Forums 4-6

WaterNSW with delivery partner GHD, conducted three digital stakeholder forums in April – May 2020 to provide an update on the Macquarie River Re-regulating Storage project.

In summary,

The Stakeholder forums were held via Microsoft Teams on:

- 27 April 2020 from 2-3.30pm
- 7 May 2020 from 8-9.30am
- 11 May 2020 from 4-5.30pm

The forums were attended by:

Representatives of state agencies

- Department Planning, Industry and Environment - Biodiversity and Conservation Division,
- Department Planning, Industry and Environment – Water,
- NSW State Emergency Services (Moree),
- Department of Primary Industry - Trangie Agricultural Research Centre.

Representatives of industry associations and businesses

- NSW Farmers Association,
- Buddah Lake Irrigators Association,
- Macquarie Effluent Creeks Association,
- Trangie Nevertire Irrigation Scheme (TNIS),
- Macquarie River Food and Fibre (MRFF).

Representatives of recreational and environmental groups and services

- Macquarie River Paddle Club - WomDomNom Organising Committee,
- OzFish Unlimited,
- Healthy Rivers Dubbo,
- Mudgee District Environment Group,
- Dubbo Canoe Club,
- PaddleWild Adventures,
- Trangie Action Group,
- Cenwest Environmental Services,
- Nature Conservation Council.

Landowners and individual community members - 9

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The forums were presented by:

From WaterNSW: Andrew Lavelle – Project Manager; Alicia Hatton – Stakeholder Engagement Specialist; Mina Suh – Environmental Lead; Alan Law – Project Engineer

From GHD: John Wall – Project Director; Nicola Bailey – Project Manager; Tony Paull – Environmental Lead; Mel Dunn – Stakeholder Engagement Specialist; Barbara Company – Engagement Specialist; Liberty Nicholls – Stakeholder Engagement Consultant

## Key points from the presentation:

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### 1. Introductions

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- Set the scene of the online forum and gave the acknowledgement of country. An overview of how the session would be conducted was given, the agenda for the session was outlined, introductions made, and stakeholders thanked for their time. The meeting notes from the session would be circulated to participants and key actions from the session made publicly available on the MRRRS webpage.
- Impact of COVID-19 restrictions and the face-to-face consultation activities originally intended to take place in March/April 2020 were postponed. The group was thanked for their patience and participation in the online forum.

### 2. Context, background and project update –

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- WaterNSW has been engaged by the NSW Department of Planning Industry and Environment (DPIE) to prepare a Final Business Case (FBC) to explore the option of constructing a new re-regulating gated weir and fishway structure on the Macquarie River.
- This structure will contribute towards improving water access reliability for the region and industries.
- This follows recommendations by Infrastructure NSW in the 2014 State Infrastructure Strategy and WaterNSW's 20 Year Infrastructure Options Study. The project had now moved from the preliminary investigation stage to the detailed planning stage.
- Design of the proposed structure had evolved from the Strategic Business Case (SBC) and been optimised based on feedback from stakeholders including DPIE Fisheries and DPIE EES. Analysis of hydrological modelling has allowed the design team to reduce the size of the proposed storage significantly, reducing the height of the proposed infrastructure by 3 metres and the storage capacity from an initial 9 gigalitres (GL) to 6GL.
- The future of the existing Gin Gin weir will be under investigation with a full or partial decommissioning based on the outcomes of further heritage and structural assessments to be undertaken as part of the environmental assessment.
- The Final Business Case (FBC) is expected to be submitted in late 2020.
- Investigations to inform the EIS are underway and are expected to progress through to late 2020. The Environmental Impact Statement (EIS) will continue into early-mid 2021, following approval at the FBC stage.

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- The DPIE have issued the Secretary's Environmental Assessment Requirements (SEARs) for the project. The Environmental Impact Statement (EIS) process is to ensure that assessments are undertaken in line with the requirements set out in the SEARs. The EIS is a critical path for construction projects of state significance.
  - The project has received referral under the *Environment Protection and Biodiversity Conservation Act* (EPBC referral). EPBC referral is a formal assessment and approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). It facilitates environment, heritage protection and biodiversity conservation. A referral has been made for this project, due to the potential impacts on the RAMSAR wetlands and threatened species, as well as other environmental values. WaterNSW is working closely with the Commonwealth to look at potential impacts and identify mitigation strategies and potential offsets.
  - Additional supplementary SEARs are expected to be issued.
  - The Regional Water Strategy (RWS) is currently being prepared by the Department. The MRRRS project aligns with the strategic objectives set out in the RWS and has been developed following recommendations made in the RWS. It is seen as a key project for DPIE – Water. The project seeks to provide long term water security across the Macquarie Valley, building a minimum level into storage which in the future could aid in reducing transmission losses and enable towns to access water through pipelines and other projects as part of the RWS.
  - During the early phases of this project, several options for the new structure location between Narromine and Warren were considered, downstream of the existing Gin Gin Weir (preferred option), and at a new location called Rocky Point approximately 15 kilometres upstream of Gin Gin. A Multi-Criteria Assessment (MCA) process determined the preferred location at the Gin Gin site. Further details regarding the MCA process are in the December 2019 project newsletter.
  - Further consultation will be undertaken to inform the FBC as well as throughout the Environmental Impact Statement (EIS) process.

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### 3. Project overview

Viewing of the animation - <https://youtu.be/LbJTXb9gIVI>

- Discussion on 3D model of the concept design including:
  - Diversion channel would be utilised during construction, approximately 10 metres deep, with a base width of 20 metres and a top width of 50 metres.
  - construct temporary cofferdams up and down stream of construction site, with the expected spoil excavated from the channel (which will be used to then used to back fill the diversion channel upon completion).
  - The proposed structure will be comprised of 3 main components involving a fishway, Regulator A (overshot flat gate arrangement) and Regulator B (undershot radial gate arrangement to allows river to behave as un-regulated storage during winter months / non-irrigation period)
  - The design of the proposed fishway is currently under development in conjunction with DPIE Fisheries and other government agencies
- Discussion on modelling undertaken to date.

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- An overview of the size and draft operating behaviour of the storage was provided. The current design had been through a number of iterations based on feedback from stakeholders and outcomes of modelling undertaken to date.
  - The modelling so far has used SOURCE model, the IQQM model from DPIE – Water and actual historical data to understand how the structure will be operated in real time events.
  - Recently developed climate change guidelines would be adopted for modelling by DPIE – Water to further inform the FBC and EIS process.
  - Data provided during the session showed typical rainfall and rejection events over the last decade.
  - Additional modelling and survey works will be undertaken as part of both the EIS and to further optimise the design.
  - Modelling so far had been within the sustainable diversion limits set out in the Murray Darling Basin Plan.
  - The river model shows broad changes and that percentages shown are to be used and referred to with caution until further modelling. The main changes would happen during the growing season as this is when the water would be captured. These figures along with tributary flows are being put into a hydrological model.
  - Inundation assessments have identified:
    - At maximum level (216.5 mAHD) – flood modelling shows that the inundation zone will be approx.. 32km of river (only operated at this level every 3-4 years)
    - A mid level (213 mAHD) – normal level operating during winter months – will have an inundation zone approx. 18km of river
    - Minimum level (210.7 mAHD) – approx. 12km of river from weir location
  - Aim of the re-regulating structure is to capture operational surpluses.
  - EIS will look not just at the construction impacts of the proposed structure, but its operation and any mitigation measures to be adopted. Continuing to engage with stakeholders in order to understand how the storage can be best managed to be more in line with the natural river system. The Operational Requirements Working Group (ORWG) would be established with key government stakeholders to collate feedback and refine how the proposed storage will be managed.

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#### 4. Environmental Impact Statement (EIS) process.

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- Requirements set out by the Department have been received (SEARs), and the team was awaiting any additional requirements from the Commonwealth.
- A number of key issues had been highlighted in the SEARs (including impacts to hydraulic regime and to fish species), and that the EIS would need to address these issues as well as a number of broader concerns raised by both government agencies and the wider community.
- Issues of both indigenous heritage and non-indigenous heritage would be considered as part of the EIS.
- The EIS document will be displayed for public comments and submitted to the Department of Planning. Determination will sit with the Planning Minister following public exhibition and submissions.

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- WaterNSW will be given the opportunity to respond to community submission received during this period and amend the EIS if required.
  - DPIE would be the determining authority on whether the team have managed, mitigated or avoided impacts and whether it was an appropriate project to proceed. In their planning determination, the Department will need to assure all issues set out in the SEARs have been addressed appropriately.
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#### 5. Stakeholder engagement .

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- An overview of the feedback obtained at previous consultation sessions was presented. It was highlighted that a number of common issues were raised across the forums, and these are summarised in the Scoping Report submitted to DPIE (<https://www.planningportal.nsw.gov.au/major-projects/project/27276>)
  - Stakeholders were encouraged to complete the recreational user survey available on the project webpage to provide feedback on how the community and other recreational users use the river and its surroundings
  - Discussion was held regarding future engagement opportunities, with upcoming online and in person opportunities to engage with the project, as well as project newsletters, collaborative mapping, surveys and updates to the webpage.
  - An overview of the different pathways for future project engagement was provided, and stakeholders were asked to self-nominate for a set of deep dive knowledge Workshop Series. Those who elected to be part of the Workshop Series would be issued further details, including protocol documents, in the coming weeks.
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**For more information on the Macquarie River Re-regulating Storage project visit:**

See our YouTube clip at: <https://youtu.be/LbJTXb9glVI>

Project webpage: [waternsw.com.au/mrrrs](http://waternsw.com.au/mrrrs)

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## Summary of key Actions

Theme	Discussion	Required action	Status
Fish passage	<p><i>Given the new structure is expected to provide better passage (assuming that Gin Gin is decommissioned) than the existing structure, how many kilometres would be gained both up and downstream?</i></p> <p>The exact number of kilometres to be gained was unknown at this stage. The next fish barrier upstream of the site is located at Narromine, and the next downstream barrier was at Marebone (near Warren).</p> <p>It was requested that reasonable measurement be provided in the future to give comfort to those interested in fish passage.</p>	<p>WaterNSW to consult internal teams regarding number of kilometres of fish passage to be gained in total.</p> <p>Information to be presented at future engagement sessions</p>	Ongoing
	<p><i>The inclusion of a fishway in the current design and WaterNSW's mandated obligation from 2011 to build 3 new fishways on the Macquarie River system at Marebone, Gunningbah, and Gin Gin. Will the other mandated fishways be looked at and started before this project is planned to commence?</i></p> <p>The other proposed fishways were put on hold for a number of technical reasons, as were many others across NSW. There is a Strategic Fishway Implementation Program (SFIP) currently under development by WaterNSW in conjunction with DPIE Fisheries. This program is currently in the initiation phase of identifying appropriate designs for optimised fish migration and will look to construct approx. 130 fish passages throughout NSW over the next decade.</p> <p>Marebone, Gunningbah, and Gin Gin are included in this program. Unlike the SFIP, the detailed concept design for the MRRRS project has been progressed and the project has moved into the planning phase. The MRRRS project concept design will align with key technical requirements developed under the fishway program.</p> <p><i>Has funding been granted for those announced in 2011?</i></p> <p>The SFIP development will identify cost estimations and seek funding to deliver the priority fish passages.</p>	Note	

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Theme	Discussion	Required action	Status
Tributary flows	<p><i>Is there potential to capture tributary flows by the proposed structure?</i></p> <p>It is not an objective of the structure to capture tributary flows and appropriate operational rules would be developed to manage these flows.</p>	Note	
	<p><i>Treatment of tributary flows. The Scoping Report submitted to Planning (<a href="https://www.planningportal.nsw.gov.au/major-projects/project/27276">https://www.planningportal.nsw.gov.au/major-projects/project/27276</a>) states that tributary flows will be captured by the proposed structure, and that some of these flows would be considered as 'dam releases'. Clarification was sought regarding how many tributary flows have been viewed in this way in the past?</i></p> <p>The detail in the Scoping report is stating what is currently in place within the Water Sharing Plan and WaterNSW operations, and there is no intention for the proposed structure to capture tributary flows. The way the Water Sharing Plans are currently set out, the management of tributary flows would not change, however this project provides an opportunity for stakeholders to identify possible changes to the Water Sharing Plans that they would like to see. Recommendations for any changes can then be referred on by the project team to DPIE – Water for their consideration and discussion. A discussion was held around what water is classed as operational surplus and the current system under the Water Sharing Plans.</p>	Note	
	<p><i>How are tributary flows currently measured, and how these flows will be calculated to be released from the proposed structure? It was expressed that transparency is desired around these figures in order to help build trust in the wider community.</i></p> <p>These flows are currently measured by gauges across the system. It is proposed that as part of the MRRRS project changes are made to the hydrometric network to enable more accurate measurement and tracking of flows by placing a gauge upstream and downstream of the proposed storage.</p>	WaterNSW to review the hydrometric system to improve measuring and tracking of flows with gauges	Ongoing
	<p><i>What will be the impacts to the effluent creeks? Traditionally the effluent creeks have benefited from both tributary flows and operational surpluses. It was asked whether the effluent creeks would be able to lay claim to unutilised surplus flows and if a breakdown of potential changes could be provided.</i></p>	WaterNSW to set up meeting with Effluent Creeks Assoc (MECA).	Completed – met with MECA to discuss project and their concerns.

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Theme	Discussion	Required action	Status
	Investigations into potential impacts downstream as a result of the capture of surplus flows are ongoing. It was also noted that once data sets are obtained, these may be shared at future engagement sessions.	WaterNSW / GHD to undertake downstream impact modelling	Feedback will be included FBC – 2/7/20 Ongoing
Tributary flows cont.	<p><i>The proposed operating heights and the potential capture of tributary flows by the proposed structure, especially when flows from the dam are low.</i></p> <p>Tributary flows would be passed through the structure and with the current design; the minimum level of the structure is lower than the existing Gin Gin weir. In those events where there are low flows from the dam and no rainfall rejection events, the proposed structure would operate as a fixed crest structure, subject to water operations requirements, with gates out of the water, allowing flows to pass through at a lower level than the current weir.</p>	Note	
	<p><i>If tributary flows are not to be captured by the re-regulating structure would this mean that the SDLs would remain the same as they currently are?</i></p> <p>The way the Water Sharing Plans are currently set out, the management of tributary flows would not change. However, this project provides an opportunity for stakeholders to identify possible changes to the plans (like a 100% transluency rule) that they would like to see which can then be referred on by the project team to the Department for their consideration and discussion.</p>	WaterNSW to pass stakeholder feedback regarding Water Sharing Plans to DPIE – Water for further consideration	Completed
	<p><i>A recommendation for clarity regarding tributary flows in future collateral was made. Further clarity in public communications may help to make it clearer to the wider community that it is not intended for tributary flows to be captured.</i></p> <p>All collateral published for the project has to be aligned with the key messaging of the Regional Water Strategy (RWS). However, the project team will provide this feedback to DPIE – Water to aid in shaping future communications.</p>	<p>To be included in future engagement activities</p> <p>WaterNSW to pass stakeholder feedback DPIE – Water for further consideration</p>	<p>Ongoing</p> <p>Completed</p>

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Theme	Discussion	Required action	Status
Recreational use	<p>Are there any plans in the design of the structure to allow for easy kayak access for portage around the structure, as recreational users will not be able to pass through the gates (e.g. paths)?</p> <p>Access to the proposed structure, would an upgraded road be included as part of the project?</p> <p>Stakeholders were encouraged to visit the project website to complete the recreational user survey.</p> <p>There is an existing public road to the current Gin Gin weir, which is on Crown land and can be used to access the new site if needed.</p>	<p>Note</p> <p>Stakeholders to provide feedback via the online recreational user survey</p>	Ongoing
	<p>Would there be any changes in the recreational use of the river upstream of the proposed structure? A ski hole is used by the local community (Trangie Water Ski Club)</p> <p>Upstream changes are not expected. It was encouraged stakeholders complete the recreational user survey available on the project webpage (<a href="http://waternsw.com.au/MRRRS">waternsw.com.au/MRRRS</a>) to provide feedback on how the community and other recreational users use the river and its surroundings. The Trangie Water Ski Club were encouraged to complete the survey and the members of the forum were asked to spread the word.</p>	<p>Note</p> <p>Stakeholders to provide feedback via the online recreational user survey</p>	Ongoing
	<p>Could the recreational user survey be extended to include questions regarding cultural impacts and other stakeholder concerns?</p> <p>Also to allow interested parties across Australia who have an environmental interest, but may not know or use the area regularly, could be provided with an opportunity to give feedback on the project?</p> <p>The purpose of the recreational user survey is to capture feedback from the local community regarding how they use and value the existing recreational space at Gin Gin weir, and to highlight any key considerations should the project be approved. Conversations have taken place with a number of community members, and whilst it is clear that the existing space holds value for the community, it is still unclear how the space is currently utilised.</p> <p>A Social Impact Assessment (SIA) as well as heritage assessments would be undertaken as part of the approvals process.</p>	<p>Further online engagement, such as interactive collaborative mapping to be planned which would provide further opportunity for input.</p> <p>All interested stakeholders are encouraged to visit the project website and to email their feedback to the project team (<a href="mailto:mrrrs@waternsw.com.au">mrrrs@waternsw.com.au</a>)</p>	To be planned

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Theme	Discussion	Required action	Status
Inundation concerns	<p><i>The current and future water levels of the storage, are the inundation figures presented at the session final?</i></p> <p>These figures are not fixed and are based on current modelling. Further optimisation of the design will be conducted, which could result in changes to the figures shown at the session.</p> <p>This is an 'active storage zone' that would fluctuate and further modelling may see it inundate at short intervals closer to Buddah, however, detailed survey work is needed to determine the figures. These figures will then be shared in future engagement.</p>	Further detail on potential inundation required (GHD/ WaterNSW)	Ongoing
	<p><i>Will the storage be retained within the existing banks of the river, or if the water would spill into riverside properties?</i></p> <p>Modelling undertaken showed that the inundation extent would remain within the riverbanks.</p>	Note	
	<p><i>Potential issues of flooding and whether these impacts would be investigated and taken into consideration. A major problem upstream of the existing Gin Gin weir is that of river capacity and potential flooding. Concerns were raised around Chinamans Cutting and through Edithville (eastern side of the weir).</i></p> <p>Consultation has been undertaken with landowners immediately upstream of the proposed site to identify concerns regarding flooding. Preliminary studies have identified a natural river breakout at Bugaboo Point which would provide a flood path to the south of the proposed storage. GHD would run analysis of previous flood assessments required for the proposed site at Gin Gin to inform the EIS. The EIS will report findings of these assessments and identify potential mitigation measures.</p>	GHD to run analysis of previous flood assessments (Chinamans cutting and Edithville impacts).	Ongoing
	<p><i>Based on the figures presented, the river height at Edithville would be expected to be 3 metres higher than it currently is under normal operation?</i></p> <p>The normal operating level of the river would be approx. 2.3 metres higher than the crest of the current Gin Gin weir. It was emphasised that this level would vary and that for a handful of events may be higher than this.</p>	<p>GHD to run modelling assessments</p> <p>WaterNSW to arrange meeting with Edithville landowner to discuss outcomes</p>	Ongoing

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Theme	Discussion	Required action	Status
Environmental concerns	<p><i>It was expressed that some stakeholders felt the project would provide no environmental benefit and that the benefit would only be to the irrigation sector upstream of the project site.</i></p> <p>The project is part of the DPIE Water RWS which includes strategic objectives to improve environmental outcomes for the wider Macquarie River system. For the MRRRS project, environmental assessments are being undertaken to determine the impacts and WaterNSW would continue to work with DPIE Water to develop the project to meet environmental outcomes of the RWS. As previously noted, the project will also recommend amendments to Water Sharing Plans which can offset any impacts.</p>	Note	
	<p><i>A query was raised regarding the terminology of 'to the Macquarie Marshes', and whether this meant the studies would stop at the beginning of the marshes, or if the marshes (RAMSAR listed wetlands) would be included to their full extent. It was expressed that to not include the full extent of the marshes in studies undertaken would be detrimental, especially as the marshes have international importance?</i></p> <p>The requirements from the Department state that the full hydrological impacts of the project need to be assessed. It is also expected that this terminology will be further clarified in any additional requirements issued by the Commonwealth.</p>	<p>GHD to investigate full extent of the marshes</p> <p>WaterNSW to seek clarification from DPIE</p> <p>Planning to assess full extent of potential impacts to the Macquarie Marshes</p>	<p>Ongoing</p> <p>Referred to the Commonwealth</p>
	<p><i>Will a new EIS need to be undertaken if changes are made to the operating rules post-completion?</i></p> <p>The operating rules are regulated by NRAR and that ultimately, inclusion of the operating rules to the Water Sharing Plan would sit with the Department. If it was a major change then the EP&amp;A and EPBC Acts will determine what may be required (if the determination is tied to the operating rules in the EIS) or if it's a small change then a modification may only need to be issued.</p>	Note	
	<p><i>Will the EIS include geomorphic studies and the effects that the proposed structure may have on sedimentation within the system and additional 'wetted' area (leading to potential nutrient losses)?</i></p> <p>The studies for the EIS would cover the change in current river channel, inundation of banks, and drainage of banks. The studies would determine the level of sediment built up behind the existing Gin Gin weir (potential sludge) and consideration given to its likely removal and management downstream.</p>	WaterNSW/GHD to conduct further investigations on impacts	Ongoing

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Theme	Discussion	Required action	Status
Cultural heritage	<p>Who will conduct the cultural heritage assessment and the specialists engaged?</p> <p>WaterNSW have engaged OzArk Environment &amp; Heritage, a professional environmental, ecological and heritage services consultancy, to undertake a heritage assessment.</p>	Noted	
Modelling	<p>Sustainable Diversion Limit (SDL) and planning provisions, the figure presented of 8% was incorrect as there was a large gap in the SDL take and the project did not want to be in breach.</p> <p>Further modelling was being undertaken and there were still reviews to be made by DPIE Water on the data. It was suggested that amendments to the Water Sharing Plans may be recommended as part of the ORWG findings.</p>	<p>WaterNSW / GHD to review basis for 8% figure presented</p> <p>ORWG to discuss findings</p>	Ongoing – to be discussed at the next ORWG, date TBC
	<p>It was noted that DPIE – Water requires that climate change guidelines are adopted for the modelling. These guidelines are defined by the Department and have not yet been applied to the modelling outputs. Information will be available at future sessions once the data set had been completed. It was noted that the slides presented also do not currently show directional change, however once this data is available it can be shared.</p>	DPIE Water to run climate change modelling data for WaterNSW	Ongoing
	<p>Scenario modelling is to be undertaken with real life examples using live data and examples from historic flows. This modelling would be able to demonstrate the impact of the storage and structure on events currently known to occur in the Macquarie River system.</p>	Noted	
Costing and funding	<p>What are the costs and who's funding the project?</p> <p>There has been no announcement by the Government on the cost of the project and the decision to make those figures public sit with DPIE – Water. Discussion was also held around IPART and the question was raised as to who would be funding the project. The project team referenced, as noted in the project newsletter released in April 2020 (available on the project website), both the MRRRS project and RWS are to be funded from the Snowy Hydro Legacy Fund.</p> <p><i>Will ongoing maintenance costs form part of the IPART process? Some stakeholders have voiced their concern regarding maintenance costs.</i></p> <p>The operation and maintenance costs would form part of future IPART submissions and determination processes. Whether the FBC became publicly available was up to the Department (DPIE – Water).</p>	Note	

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Theme	Discussion	Required action	Status
Operation of the new structure	<p>Would there be a commitment from WaterNSW within the operating rules as to who would be responsible for the ongoing management of flows?</p> <p>The objective of the ORWG is to determine the operational requirements for the proposed infrastructure which would monitor and govern the management of flows and operation of the storage.</p>	Note	In progress
	<p>Regarding agreements that are understood to be in place with irrigation schemes to ensure that the present weir pool is maintained at its current height. If the storage is not operated at this level, this would cause problems for extraction?</p> <p>Further consultation would be conducted with relevant stakeholder groups in order to maintain existing requirements into the future. Consultation and further studies will look at the existing use of the weir pool by irrigators, stock and domestic, as well as other license holders. The ORWG would need to consider the requirements of the existing weir pool when developing the operational requirements.</p> <p>Discussion was then held on the existing Gin Gin weir and its purpose. The purpose of the existing structure was to maintain a weir pool at Gin Gin. There is currently 1-1.2 GL in channel storage at Gin Gin (210.7 AHD). The future of the existing weir will also need to be considered in the assessment. The current design for the new weir, the active storage volume was only 3-4 GL.</p>	<p>WaterNSW / GHD to consult further with relevant groups to maintain existing services.</p> <p>Studies to be undertaken into existing requirements.</p>	Ongoing
	<p>The operating levels of the new structure and whether it would be below that of the middle section of the existing Gin Gin weir?</p> <p>The existing weir crest is 210.7 metres. The new structure would have a variable height with an operating range of up to 216.5 metres. However, these figures are not fixed and are based on current designs and modelling. Further optimisation of the design is being investigated, which could result in changes to the figures presented at the session. The new structure would need to meet the requirements of the existing structure as well as providing potential benefits.</p>	Further modelling into hydrological impacts to be undertaken by WaterNSW / GHD	Ongoing
	<p>Regarding capacity of the new storage when compared to that of the existing. The question was raised as to whether it was a net increase of 4.3GL as the existing weir pool holds around 2 GL?</p> <p>With the current height of Gin Gin weir, there is currently 1 - 1.2GL in channel storage at Gin Gin (210.7 AHD). The capacity of the new storage is currently proposed to be 6GL however working on the design in consultation with stakeholders is continuing to further optimise the design and reduce the size of the storage where possible.</p>		

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Theme	Discussion	Required action	Status
Operation of the new structure cont.	<p>Some of the current pumps set up, some pipes are slightly lower than the existing bank (4.5 metres lower than existing bank). This would mean that any significant rise in water level in the river would result in water flowing down these existing channels. There would be concerns with sending water down the channels due to the way the pumping wells are constructed.</p> <p>Survey works would need to be undertaken to identify and address any potential issues resulting from a raise in the river levels. An enquiry was made by WaterNSW regarding best point of contact at TNIS for further discussion regarding these issues.</p>	Further consultation to be undertaken with TNIS to ensure the structure meets the pumping requirements of the existing Gin Gin weir (WaterNSW)	Ongoing - emails and site visit completed 2/7/20
	<p>Importance of access to the storage for irrigation as well as stock and domestic purposes. The design and operation needs to consider which pumping requirements can be met and which cannot, as there would be issues for stock and domestic use. Currently when the river level drops below the existing crest, the pumps pick up sand.</p> <p>The pumping requirements would be taken into account during the next round of design and would be discussed with the ORWG to help establish the operational requirements of the structure. The potential offset solutions, such as submersible pumps, would be investigated as part of project to help deliver best possible outcome for all stakeholders. All identified impacts will be documented in the EIS.</p>	Consideration to be given to stock and domestic needs. Further consultation and investigation required.	Ongoing
	<p>Trangie Nevertire Irrigation Scheme (TNIS) often run high security water to an agricultural research farm in the winter months. As such, it would be essential to maintain a pumping pool of minimum 210.7 metres in order to ensure water supply.</p> <p>A number of options are being considered to ensure access for high security customers in the long-term. As part of the RWS, the proposed storage is designed to be fit for future use in line with the objectives of the RWS and its suite of potential future projects to provide greater water security in the Macquarie Valley.</p>	Consideration to be given to agricultural research needs. Further consultation and investigation required.	Ongoing

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Theme	Discussion	Required action	Status
Rainfall rejections	<p><i>Rainfall rejections and how the proposed structure would capture and distribute these flows.</i></p> <p>Rejection events would be stored in the storage short term only. This stored water would then be able to be utilised to meet demand downstream of the structure in shorter lead timeframes, with orders released from the re-regulating structure rather than the dam. This in turn would increase the general security allocations (of which environmental water is a component).</p> <p><i>Would a cancelled order be held for a specific customer after cancellation and what would happen to this water if the original customer did not then use it?</i></p> <p>If any customer downstream of the proposed structure made subsequent orders, the water held temporarily in the storage would be used to fulfil the order.</p> <p><i>Will cancelled orders be resold?</i></p> <p>Additional water does not get resold, and that any license holder in the system who has not exceeded their allocation can place and receive an order.</p>	Note	
	<p><i>Where do current rejection flows go and how they are used?</i></p> <p>This is dependent on the year and conditions at the time of rejection. Sometimes orders are made and rejected where farmers can phone others to see if someone else can use the order within the system. Current events being monitored would see impacts of flow into the marshes, and there are some questions being raised as to whether these contribute to environmental water allocations. WaterNSW is currently working with DPIE and EES to gain an understanding of what happens and how the modelling can feed into changes to policy and planning. Investigations will continue into current vs future hydrological behaviours as part of the EIS. Stakeholders would be keen to get a clear and concise answer of the hydrological changes that will occur.</p>	<p>WaterNSW/GHD to continue liaison with Government agencies.</p> <p>Further modelling to be undertaken on impacts to the marshes</p>	Ongoing
	<p><i>Where does the stored water from rainfall rejection events go if not used in the 2 weeks following order cancellation, and whether it would be used to supplement environmental allocation? Can water be redirected specifically in the lower reaches of the system, this could be of some benefit.</i></p> <p>No determination has been made at this stage, and that WaterNSW does not get to decide how these flows are re-allocated. Feedback received from the ORWG and stakeholder Workshop Series will help to identify what currently happens to these flows, and to develop/refine operational guidelines that are in tune with all requirements of the system and help shape the outcome of the MRRRS project.</p>	Note	

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Theme	Discussion	Required action	Status
Water Sharing Plans and reporting	<p><i>Is it legally compulsory to report against the Water Sharing Plans? Some of the community already feel as if the new structure will result in a decrease to environmental water and the project needs to put the modelling and outputs in context of how it impacts planned environmental water.</i></p> <p>It is legally required. The project would be undertaking significant modelling that looks at the base case as it stands and what the hydrological impacts are on the system with the new structure in place.</p>	Further modelling into hydrological impacts to be undertaken by WaterNSW / GHD	Ongoing
	<p><i>There is a lack of trust that WaterNSW will honour commitments relating to the MDBP and associated reporting. How will the community have faith that WaterNSW would comply with reporting requirements as set out by the Commonwealth?</i></p> <p>The reporting requirements were at a government level, ie DPIE Water, and these reports are not prepared by WaterNSW. WaterNSW will comply with all requirements set out in the SEARs and supplementary SEARs issued as part of the EPBC referral.</p>	Note	
	<p>A question was asked regarding water allocations (AWD) and whether they would be increased?</p> <p>Allocations are based on how much water is available in the system and that this project would not generate any new licences and as such there would not be an increase in works approvals. In the long term there would be more water in Burrendong Dam which would increase general security.</p>	Note	
Existing Gin Gin Weir	<p><i>With the current weir height, will the proposed structure be higher than the existing?</i></p> <p>The current design is a gated structure, not a fixed crest. The design has a bottom sill level lower than Gin Gin weir, and the maximum operating height would be approximately 6 metres higher than the existing weir. This information will be finalised through detailed survey work.</p>	Note	Ongoing
Construction	<p><i>When will construction begin, and how long it would take?</i></p> <p>Subject to the EIS determination, the earliest construction start date would be mid-late 2021. Build time would be dependent on the environment in which the system is at the time of construction. If water levels are low, construction is estimated to take 12-15 months. If water levels are high or the valley sees flood conditions, construction timelines would be pushed out to approximately 18 months. The project finalisation could take 18-24 months.</p>		

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Theme	Discussion	Required action	Status
Groundwater	<p><i>Potential impacts to groundwater?</i></p> <p><i>Considerations given for seepage and groundwater loss and whether these issues would be addressed through investigations as part of the EIS?</i></p> <p>The groundwater around Narromine (approx. 50km upstream of proposed site) is recharged by water in the river. The original location and size may have impacted surcharges to the area and by reducing the storage size and refining the location this is now unlikely to occur. Work would continue on the design in consultation with stakeholders to further optimise the design and reduce the size of the storage where possible. Further investigations into groundwater will be undertaken as part of the environmental assessment. It was noted that by preventing the storage from extending into areas of the river where seepage is known to occur, issues such as groundwater impacts would likely be mitigated.</p>	WaterNSW/ GHD to further investigate	Ongoing
	<p><i>A section of the Scoping Report relates to issues of groundwater and seepage?</i></p> <p>The Scoping Report identifies all possible issues, and the extract being referred to was specific to the construction site itself. The control measures will need to be put in place to mitigate these issues, and that further studies would be undertaken to look at the interaction between the storage and groundwater in the area.</p> <p><i>Is recharging groundwater negative?</i></p> <p>It is dependent on the area in which this occurs, and the main issue lies in impacts to water quality. Depending on the surrounding environment, recharge can result in saline water rising to the surface. It can also lead to potential waterlogging which can have impacts on bank vegetation.</p>	WaterNSW/ GHD to further investigate	Ongoing
Project delivery	<p><i>What is GHD's involvement and role in the project?</i></p> <p>WaterNSW has engaged GHD, an environmental and engineering consultancy, as a delivery partner for the project. GHD are currently undertaking a number of studies and assessments for input to the Final Business Case (FBC). These investigations include design, environmental, heritage, hydrology, geophysical/geotechnical, detailed land and river surveying.</p>	Note	

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Theme	Discussion	Required action	Status
Information	<p><i>Will the notes from this forum as well as others be shared with all participants?</i></p> <p>The notes for this forum would be distributed to all participants. With regards to notes from other sessions, it was noted that a summary of discussion and actions raised would be drafted and once finalised would be shared to the project webpage.</p>	Note	
	<p><i>Can the animation presented at the session be available for groups to share via their own social media accounts?</i></p> <p>The video link would be sent to all interested parties once approved, and a link would also be made publicly available on the project webpage.</p>	GHD/WaterNSW to issue link to animation to Trangie Action Group as soon as made available	Completed
	<p><i>What is WaterNSW's response to negative commentary about the project and the spread of misinformation via social media channels? Suggested that the narrative needs to be around not capturing tributary flows and the water efficiency issues as there is some negative feedback in the community and misinformation being presented. It was also noted that some of the narrative in the public space has been based on excerpts from the Scoping Report.</i></p> <p>The Scoping Report identifies all possible issues, and that it presents a worst case scenario in order to trigger EPBC referral and environmental assessment requirements. Stakeholders and the wider community are encouraged to visit the project webpage for the latest project information. This webpage is regularly updated with the latest project developments, newsletter, consultation activities and FAQs. A Facebook page was underdevelopment to provide more of a digital presence going forward.</p>	<p>Noted. WaterNSW to provide ongoing information on the project, finalise Facebook page and plan digital platforms.</p> <p>WaterNSW to complete animation and upload to webpage and Facebook</p>	<p>Completed – Facebook page</p> <p>Ongoing – webpage updates and planning of digital platforms</p> <p>Completed</p>
DPIE Water specific matters	<p><i>When there are rainfall events on a farmer's plot of land they are not required to return excess allocation to the environmental water holder (that the government assess how much water was received on the landowners property and take that into account). There is currently an imbalance where the environment is short-changed. The group would like to see further transparency around rainfall and water allocation data?</i></p> <p>Water allocations relating to rainfall events needed to be looked at in all the river systems; that this was not a question that could be answered by the project team as it fell outside the remit of the MRRRS project and the concept outlined by the Dubbo Environmental Group referred to the Water Sharing Plan. However, the team noted that they would look to refer the question to the Department for clarification. It was also noted that data from rainfall runoff models may be available for public viewing, however, this would need to be confirmed with the Department.</p>	WaterNSW to refer enquiry to DPIE - Water for clarification and check availability of run-off data.	Referred to DPIE
	<p><i>What are the impacts of mining in the Upper Cudgegong on the depletion of water across the system? The impacts due to mining were outside the remit of the project. However, elements of DPIE – Water's RWS may address these concerns.</i></p>	Question to be referred to DPIE – Water	Completed

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