

# MEETING MINUTES

## Narromine to Narrabri Inland Rail Community Consultative Committee

### NARROMINE SUB-COMMITTEE

#### DATE / TIME

28 March 2022  
11.05 am

#### LOCATION

Narromine United Services Memorial Club, Narromine

#### FACILITATOR

Michael Silver OAM

#### MINUTE TAKER

Michael Silver OAM

#### DISTRIBUTION

Narromine Sub-committee

#### ATTENDEES

- ▶ Michael Silver (Independent Chair)
- ▶ Andrew Knop (Community Member)
- ▶ Shelly Bayliss (Community Member)
- ▶ Murray Feddersen (Community Member)
- ▶ Emma Yule (Narromine Shire Council)
- ▶ Erica Tudor
- ▶ Duncan Mitchell
- ▶ Louise Johnson
- ▶ Dr Mark Jempson (Venant Solutions)
- ▶ David Garrod
- ▶ Richard Hamilton
- ▶ Akhter Hossain (Jacobs/GHD)
- ▶ Matt Errington

#### APOLOGIES

- ▶ Lewis Lydon (Community Member)
- ▶ Paul Brydon (Community Member)
- ▶ Taje Fowler (Community Member)
- ▶ Andre Pretorius (Narromine Shire Council)

#### GUESTS

- ▶ John Zannes (Transport for NSW)
- ▶ Elisha Bailey (Department of Infrastructure Transport, Regional Development and Communications)
- ▶ George Clarke (Narromine Local Aboriginal Land Council)
- ▶ Michael Young (Department of Planning and Environment) [via video link]
- ▶ Anna Howard
- ▶ Paul Giess
- ▶ Susan Kay
- ▶ Ben Madgwick

## Discussions

NO.	DISCUSSIONS
1. <b>Welcome</b>	The Chair welcomed all to the meeting. Mr Silver also acknowledged the community observers in attendance and the representatives of Commonwealth and State Government agencies.
2. <b>Acknowledgement of Country</b>	The Chair acknowledged the Traditional Owners of the land on which the meeting is held and recognised their continuing connection to land, waters, and culture, paying respects to their Elders past, present and emerging.
3. <b>Declarations of Interest</b>	<ul style="list-style-type: none"> <li>• Michael Silver – Pecuniary interest – expenses of Independent Chair borne by ARTC.</li> <li>• Andrew Knop – non-pecuniary interest. Property located within Study Area.</li> <li>• Murray Feddersen – non-pecuniary interest. Property located within Study Area and the Focus Area of Investigation</li> </ul>
4. <b>Chair's Minute</b>	<ul style="list-style-type: none"> <li>• <b>Annual Reports</b> The Chair advised that the Annual Reports of the CCC for 2019 and 2020 had not been submitted to the Department of Planning or to the Proponent.</li> </ul>

NO.	DISCUSSIONS
	<p>Mr Silver acknowledged that this was an oversight of his and took full responsibility for the error. He apologised for this error and indicated that the matter would be addressed in the coming week.</p> <p>Mr Knop commented that this was most disappointing, being inconsistent with the Community Consultative Committee Guidelines and effectively prevented the CCC from reviewing the status of the project annually. Mr Knop also noted that the Proponent engaged the Chair, and it should have ensured the Annual Reports were lodged.</p> <p>The Chair indicated he would be addressing the matter with the Department in the coming week.</p>
<p><b>5. NSW Department of Planning and Environment Presentation</b></p>	<p><i>Michael Young, Principal Planner, Transport Assessments, NSW Department of Planning and Environment (DPE) provided a Process Update Presentation on the Narromine to Narrabri Inland Rail Proposal by video link. (Copy of the presentation attached to the minutes).</i></p> <p>Mr Young provided an overview of the State Significant Infrastructure process noting the current status of the proposal.</p> <p>He noted the Proponent is required to submit a Response to Submissions report and responses to additional information requested by the Department (Preferred Infrastructure Report) as well as advise any amendments (Amendment Report) it wishes to make to the proposal.</p> <p>Mr Young indicated these reports will be reviewed by the Department and it will then decide whether to publish the documents on the Major Projects website or whether to seek further information. The Department may also decide to exhibit and seek public submissions on the Amendment Report and Preferred Infrastructure Report.</p> <p>Once these reports are accepted by the DPE, the Department will undertake the assessment. The assessment includes:</p> <ul style="list-style-type: none"> <li>○ reviewing the design of the project</li> <li>○ further community engagement</li> <li>○ seeking advice from government agencies and independent experts</li> <li>○ requesting additional information from the proponent</li> <li>○ assessing the economic, environmental, and social impacts of the project against relevant standards and criteria</li> <li>○ evaluating the merits of the project as a whole</li> <li>○ preparing recommended conditions of approval</li> </ul> <p>The Minister for Planning is the determining authority.</p> <ul style="list-style-type: none"> <li>• Andrew Knop asked where the community has an opportunity to make comment on the Preferred Infrastructure Report and the Amendment Report. Mr Young advised that the process is between the Proponent and the DPE. The DPE will decide if the documents are to be exhibited, and submissions invited – otherwise documents will be placed on the DPE website. Community members may still submit comments for DPE’s consideration.</li> <li>• Murray Feddersen sought information on the expected timeline for a determination. Mr Young indicated that this would depend on whether further information is required and whether the documents are exhibited.</li> <li>• Mr Knop asked whether the Amendment Report makes changes to the project footprint. Mr Young advised that it does – crossing loops, road closures and alterations to the road network as well as in addressing drainage issues.</li> </ul>

NO.	DISCUSSIONS
	<ul style="list-style-type: none"> <li>Mr Knop enquired when the independent hydrologist had been engaged by the DPE. Mr Young advised that the independent hydrologist has been engaged by the DPE since the commencement of the exhibition process in December 2020.</li> </ul> <p>The Chair thanked Mr Young for his presentation.</p>
<p><b>6. Minutes of Previous Meeting</b></p>	<p>It was noted that the minutes of the meeting of the Sub-committee held on 21 February 2022 had been approved on 21 March 2022 and placed on the proponent's website.</p>
<p><b>7. Correspondence</b></p>	<ul style="list-style-type: none"> <li>Nil</li> </ul>
<p><b>8. Previous Actions</b></p>	<p>8.1 That the JacobsGHD Hydrologist meet with Mr Knop to further discuss the latest flood modelling results (in particular, the estimated flood levels), and Mr Knop be provided with details of the area of the catchment, permeability considerations, rainfall intensity calculations and how a 23% increase in impact, as a projection for climate change, has been incorporated into the latest flood modelling.</p> <ul style="list-style-type: none"> <li>The Chair noted that the Proponent had provided Mr Knop with the following documentation: <ul style="list-style-type: none"> <li>3 sets of transects, pre- and post-development (1%, 5% and 20% AEP events)</li> <li>2 simulations of the South-East Narromine area (1% AEP event, pre- and post-development)</li> </ul> <p>Further, an online meeting was undertaken with the Proponent's hydrologists on Tuesday 22 March 2022.</p> <p><b>Chair's note:</b> <i>For context, email commentary from Mr Knop both before and post the online meeting is contained in Appendix 1 to the minutes.</i></p> </li> <li>Mr Knop noted that the Action relates back to issues raised in February 2020. He indicated the community is concerned that the flood modelling does not replicate real world events. He indicated he would like to see the 1%AEP Flood Model. Mr Mitchell indicated he would provide further information to Mr Knop.</li> <li>Akhter Hossain advised that the flooding assessment has been conducted in accordance with the guidelines presented in the Australian Rainfall and Runoff 2019 (ARR 2019) . ARR 2019 recommends using 22.8% increase in rainfall for the catchment area of Backwater Cowal to estimate projected rainfall with climate change for the year 2090 with Representative Concentration Pathway (RCP) 8.5. He advised that LiDAR has been used to establish the topography of the catchments.</li> <li>Mr Mitchell advised that the work done to date has permitted development of the Reference Design. There will be further refinement and more accuracy in the design as the project moves to Preliminary Design and then to Detail Design.</li> <li>The Chair question what DPE's expectations are in respect of the flood modelling. Mr Mitchell that ARTC is working with DPE on the flooding issues, and he felt comfortable with the level of information available.</li> <li>Mr Knop questioned what the implications of a 1% AEP plus climate change will be.</li> <li>Dr Mark Jempson indicated the potential impact to other people needs to be reported under a climate change scenario. The other consideration is that ARTC needs to understand the impact of climate change on its infrastructure.</li> <li>Mr Knop asked what is ARTC's interest in the impact on infrastructure when climate change impact is greater than the 1955 flood level. He said community members know what the impact of the 1955 flood was – they experienced it. "You should talk to these people".</li> </ul>

NO.	DISCUSSIONS
	<ul style="list-style-type: none"> <li>• Dr Jempson highlighted that the SEARs required the Probable Maximum Flood (PMF) to be assessed that considers flood risk to people and property resulting from failure of the rail formation. The assessment must satisfy the quantitative design criteria and demonstrate that there will not be an adverse impact from the development.</li> <li>• Mr Knop asked where climate change sits in the assessment of impact. He said landholders know what happens in a major flood, they are interested in the cumulative impact of climate change. He reiterated that the Webb Siding outflow is a critical mitigation point whilst the Narromine Levee is potentially in danger of overtopping.</li> <li>• Dr Jempson indicated that the matters raised by Mr Knop are covered in the additional reporting.</li> </ul>
<p><b>9. Proponent's Presentation</b></p>	<p><i>Duncan Mitchell, Akhter Hossain, Louise Johnson, and Matthew Errington presented the proponent's report.</i></p> <p><b>9.1 N2N Project Update</b></p> <ul style="list-style-type: none"> <li>• Mr Mitchell stepped the Sub-committee through the Project Update highlighting the that the project has reached the 'approvals stage.</li> <li>• He noted that the Australian Government has committed \$44 million to an Inland Rail Interface Improvement Program to assist in the development of local complementary infrastructure. He cited the Parkes Special Activation Precinct (SAP), the Moree SAP and the Narrabri 'Port' as local regional examples.</li> <li>• Mr Knop questioned whether the 487 employees noted for the Narrabri to North Star project were full time equivalent (EFT) positions. Mr Mitchell confirm they were EFT positions.</li> <li>• Mr Knop asked, in terms of the Narrabri to North Star project, when will the EIS in respect of the Mehi-Gwydir floodplain crossing at Camurra, north of Moree be finalised. Mr Mitchell indicated when planning and environmental assessments are finalised – looking to get the project up and going. He did not expect the delay to impact the overall Inland Rail schedule.</li> </ul> <p><b>9.2 Engagement Update</b></p> <ul style="list-style-type: none"> <li>• Louise Johnson provided an update on engagement and consultation.</li> <li>• Ms Johnson advised that Patricio Munoz had left Inland Rail in September 2021. Ms Erica Tudor had recently been appointed as his replacement. She also detailed the Engagement Team responsible for communication and engagement along the corridor.</li> <li>• Ms Johnson outlined the various consultation and engagement processes over the past 12 months. In particular the work associated with exhibition of the EIS and ensuring landowners had access to the document by mailing USBs to landowners.</li> <li>• Ms Johnson advised that property acquisition was currently a primary action. A voluntary acquisition process was initiated by ARTC in April 2021 for landowners interested in discussing property acquisition. In December 2021, the process under the <i>Land Acquisition (Just Terms Compensation) Act 1990</i> was initiated with correspondence from Transport for NSW distributed by ARTC.</li> <li>• Mr Knop enquired how many landowners accepted the voluntary acquisition under the initial approach. Ms Johnson indicated some have taken up the option whilst others have decided to wait for the formal process to be enacted. Mr Mitchell indicated it was difficult to release this information as it is a balance between transparency and the privacy of individuals. Ms Johnson advised that most formal letters were issued: Narrabri area in December 2021; Narromine area in January 2022; Gilgandra in February 2022.</li> <li>• Ms Johnson provided an overview of the property acquisition process noting that the six-month negotiation period is a minimum and where negotiations are</li> </ul>

NO.	DISCUSSIONS
	<p>progressing satisfactorily some additional time will be considered to reach an agreement. She indicated that where ever possible landholders are being matched with Stakeholder Engagement Team members they know.</p> <ul style="list-style-type: none"> <li>• The Chair requested clarification on the source of the formal letters – Ms Johnson advised they were from Transport for NSW under the <i>Land Acquisition (Just Terms Compensation) Act 1990</i> but was issued by ARTC.</li> <li>• Ms Johnson outlined the consultation undertaken with various government agencies and Aboriginal Land Councils. Mr Knop requested confirmation that an area near Webb Siding had come under the control of Local Land Services as a conservation area. Ms Johnson indicated she would follow up on the enquiry. <b>ACTION</b></li> <li>• Ms Johnson noted that considerable consultation had occurred with local government, community groups and business organisations to ensure they are aware with a view to making them Inland Rail ready.</li> <li>• Ms Johnson noted that offices in Narromine and Narrabri were now operational.</li> <li>• Ms Johnson advised that the focus over the coming months will be progressing the property acquisition process with land owners.</li> </ul> <p>The meeting was adjourned at 1.05 pm for lunch.</p> <p>The meeting reconvened at 1.50 pm.</p> <p><b>9.3 Environment Impact Statement (EIS) Update</b></p> <ul style="list-style-type: none"> <li>• Matt Errington provided an overview of the EIS document, exhibition process and the request by DPE for additional information.</li> <li>• Mr Errington advised that 116 submissions had been made during the exhibition of the EIS. Of these 86 were community submissions with 10 of these coming from the Narromine district, 15 submissions were from government agencies and 15 from other entities.</li> <li>• Mr Errington stated that subsequently, the DPE directed ARTC to provide a Preferred Infrastructure Report (PIR) which: <ul style="list-style-type: none"> <li>○ Addresses the hydrology and flooding impacts of the Project</li> <li>○ Provides appropriate justification and information on the design of the Project and alternative rail alignments considered</li> <li>○ Provides design alternatives to demonstrate how residual flooding impacts can be reduced</li> </ul> </li> <li>• In response a Route Selection Summary Report has been prepared which distils the information on route selection and pulls the information that was used in the process together. The Report also incorporates the considerations associated with flood impacts and other environmental matters.</li> <li>• Mr Errington advised that an Amendment Report has been prepared outlining the following amendments: <ul style="list-style-type: none"> <li>○ Crossing Loops</li> <li>○ Public Level Crossings</li> <li>○ Public Road Closures</li> <li>○ Public Road Realignment</li> <li>○ Temporary Workforce Accommodation</li> <li>○ Construction and Operation Footprints</li> </ul> </li> </ul> <p>Mr Errington advised the number of level crossings had been reduced from 51 to 49. Further there will only be the need for two road closures. The Baradine accommodation camp is to be located at the old racecourse rather than the Baradine Showground. He also advised that mobile accommodation facilities will be established in some remote compounds servicing up to 30 people.</p> <p>Mr Errington added that there will be some alterations to the construction and operational footprint, with the mapping updated. Also, some culverts have been</p>

NO.	DISCUSSIONS
	<p>updated and provision made for drainage control areas – this will require some additional land, but the extent of these areas will be refined in the final design.</p> <ul style="list-style-type: none"> <li>• Mr Errington advised that additional environmental assessments had been undertaken to address issues raised in the submissions. He advised that a hydrology Working Group had been established to examine issues raised by the independent hydrologist. The group meets monthly, and the information reviewed should be made publicly available.</li> <li>• In terms of timelines for the assessment process, Mr Errington indicated there is no statutory timeframe for the DPE to finalise an assessment. He indicated that it has been an iterative process in respect of the provision of additional information – he hoped the formal assessment process would commence in the next couple of months.</li> <li>• Mr Errington provided an update on biodiversity assessments with a focus on firming up assumptions on threatened species and improving certainty on biodiversity impacts. He highlighted recent surveys undertaken in the Pilliga Forest. He also noted the work done by independent certified experts on targeted fauna.</li> <li>• Mr Errington then outlined the next steps in the process and consultation and information processes to be made available to the community.</li> <li>• Mr Knop requested confirmation on a matter raised by him in his submission to the EIS, as to whether Eucalyptus microcarpa, commonly known as grey box, occurs in community form. Mr Errington confirmed that the consultant ecologists have undertaken a detailed review of the data. Mr Errington took the matter on notice. <b>ACTION</b></li> <li>• Mr Knop noted the proposal to extend areas of the footprint to make provision for scour relief at culverts. He enquired how this will be identified in the Amendment Report. Mr Errington indicated that the Map Book identifies where the location of the drainage areas.</li> </ul> <p>9.4 Hydrology Update</p> <ul style="list-style-type: none"> <li>• Akhter Hossain provided an update on the flooding and hydrology assessment, noting that an updated report has been prepared to support the Preferred Infrastructure Report and the Amendment Report. He advised that with the Quantitative Design Limits (QDL) established in consultation with the DPE, flooding impacts on the amended design has been considered. Adjustments to the flood modelling have taken account of community concerns, submissions to the EIS, the DPE and independent reviewer's comments.</li> <li>• Mr Hossain noted the establishment of the Hydrology Working Group advising that it has been meeting monthly over the last 12 months. The Group involves the DPE Independent Flood Reviewer, DPE technical officers, ARTC representatives and its consultant hydrologist.</li> <li>• Mr Hossain outlined the assessment changes addressing culvert blockages, additional flood relief structures and drainage control areas. He advised the drainage control areas will extend 15 metres upstream of the rail corridor and 50 metres downstream of the rail corridor potentially requiring some additional land, although the areas required and scouring mitigation treatments will be refined in the detailed design.</li> <li>• The Sub-committee was provided with an animated Narromine Flood simulation. Mr Hossain provided an explanation of the major flood impact features such as the Backwater Cowl, Webb Siding, and the Macquarie River and the impacts of inundations.</li> <li>• Mr Hossain noted that the QDLs are for events up to and including 1% AEP requiring the assessment of:             <ul style="list-style-type: none"> <li>○ Flood level (afflux)</li> <li>○ Velocity</li> <li>○ Hazard</li> <li>○ Duration</li> </ul> </li> </ul>

NO.	DISCUSSIONS
	<ul style="list-style-type: none"> <li>• Mr Hossain advised that the impact assessment for Narromine for the 1% AEP event had been updated along with the other larger flood assessment. The increased impacts are mostly minimal. He then explained the areas that will see reductions and those that will see increases in afflux. Mr Mitchell commented that the modelling demonstrates that most increases will be less than 10 millimetres.</li> <li>• Emma Yule sought clarification on whether the proposed Materials Distribution Centre has been considered in the flood modelling. She noted the existing rail line, downstream would hold up flood waters potentially at a higher level. Mr Knop added that with first, second and third order streams feeding this area this is of significant concern. Mr Hossain responded that provision has been made for additional culverts in this area to mitigate the problem. Mr Knop suggested that water would push along the embankment rather than through the culverts. Mr Hossain disagreed, indicating that this will not be an issue given the many culverts to be installed which will address the concerns. Mr Knop responded that it was originally suggested that this area would require a viaduct to allow flood flow, now it is proposed that banks of culverts will be sufficient to address the issue.</li> <li>• Mr Knop expressed his continuing concern with the basis of the 1% AEP flood modelling. He suggested that it was based on a 'dry feed' from the Backwater Cowl whereas the Cowl has been permanently flooded for the last two years thus diminishing its permeability. Dr Jempson explained the various scenarios as to how the Backwater Cowl may influence flooding – where Backwater Cowl influencing flooding the velocity will be lower, however with a higher velocity the afflux will be higher. Consequently, there will be greater flooding where the Backwater Cowl is not influencing flooding. He advised that ARTC in consultation with the DPE has agreed the velocity limits to reduce scouring – this will also reduce afflux. Meeting the velocity limits will influence the design of structures rather than the afflux.</li> <li>• Mr Knop questioned who fixes scour problems on private land. Dr Jempson advised that there are a range of mitigation options to prevent scour, one of which is the introduction of the drainage control areas. Should these areas be required, which will be determined during detailed design, they will be designed to manage the scour, so it does not extend onto private land.</li> <li>• Mr Knop noted that several 20% AEP flood events have occurred over the last two years. Dr Jempson indicated this more recent flood information is being analysed. Mr Knop reiterated the need to factor in community input, advising that flood depths had been provided to the Proponent's hydrologist. He questioned if this information had been used. He suggested the community wants to know the impacts in a real-world situation, suggesting that whilst hypothetical modelling is interesting, the community is only interested in the actual impacts. He added that there appeared to be no clarity on the 1% AEP flood or what additional impact climate change will have on the flooding.</li> <li>• Mr Hossain advised that the design intent is to meet a 1% AEP design and consider climate change. Mr Knop responded, does this mean a 1% AEP plus 23% additional for climate change. Dr Jempson noted that the SEARs require a 1% AEP analysis and the assessment of a 1% AEP plus climate change.</li> <li>• Mr Knop requested clarity on the implications of any escalation of afflux above the 1% AEP – this is what landholders are worried about. There are serious concerns over failure of mitigating infrastructure and the implications for Narromine. Mr Mitchell advised that community observations and information has been taken into considered and are now demonstrated in the modelling. Mr Knop responded that with more flood events beyond the 5% AEP occurring regularly there is concern at what occurs if the input data is incorrect. He cited a rain event in April that resulted in 55 centimetres of water over Wallaby Road. Mr Mitchell responded that additional culverts have been incorporated into the design and are shown in the Map Book.</li> </ul>

NO.	DISCUSSIONS
	<ul style="list-style-type: none"> <li>• The Sub-committee examined the 0.2% AEP Impact Assessment for Narromine and noted that most of the increase is upstream of the new rail line, depicted in orange shading on the map.</li> <li>• Mr Hossain advised that the design is compliant with the QDL as most isolated buildings are already flooded above floor with the afflux limit of 10 mm exceeded in 1% AEP at 3 habitable and 11 non-habitable buildings.</li> <li>• Mr Hossain stepped the Sub-committee through the analysis of potential breach locations on the existing Narromine to Dubbo rail embankment at Webb Siding noting that various flooding options and flood behaviour patterns had been analysed. Mr Knop highlighted the proposed Narromine Levee and the implications for flood flows from the Macquarie River. Mr Hossain advised a similar assessment of the Narromine Town Levee had been undertaken. He concluded that overall, the level of flooding is like existing flooding.</li> <li>• Mr Hossain advised that ARTC had provided the flood model for Narromine representing the post-implementation of N2N conditions to Narromine Shire Council. Narromine Shire Council's consultant, Lyall &amp; Associates, assessed impacts of the post-implementation of N2N conditions and the preferred flood mitigation scheme for Narromine. Key findings from Lyall's flooding impact assessment are included in the report entitled "<i>Narromine Town Floodplain Risk Management Study and Plan Update, July 2021</i>". The July 2021 report identifies that the preferred flood mitigation scheme for Narromine would result in increased peak flows in Backwater Cowal in both the 1% and 0.5% AEP flood events and the increased peak flows would consequently increase water levels and velocities in Backwater Cowal and its associated floodplains downstream of the proposed 125 cells culvert under the existing Narromine to Dubbo railway at Webb Siding. The July 2021 report also identifies that implementation of the preferred flood mitigation scheme for Narromine would result in an increase in peak flows and peak flow velocities that would be experienced through the openings in the post-implementation of N2N conditions both in the 1% and 0.5% AEP flood events. Mr Hossain noted that ARTC had handed over the flood modelling data to Narromine Shire Council before additional flood relief culverts were included in the flood model representing post-implementation of N2N conditions to support the Preferred Infrastructure Report and the Amendment Report.</li> <li>• In summary, Mr Hossain advised that:             <ul style="list-style-type: none"> <li>○ Assessment has been updated to address regulator and stakeholder feedback.</li> <li>○ Overall, no widespread flooding impacts.</li> <li>○ The proposal has no adverse impacts on flood behaviour due to potential failure of the existing Narromine to Dubbo rail embankment at Webb Siding in a 1% AEP and a 0.5% AEP flood event. No impacts to the preferred flood mitigation measures for Narromine, with further consultation to occur during detailed design.</li> <li>○ Management of QDL departures will occur in accordance with conditions of approval.</li> </ul> </li> <li>• Mr Knop questioned the flood level of the Baroona stream gauge relative to the Town gauge in the 1955 flood event. He questioned what the volume of flood water was at the Baroona gauge in 1955 as at least 20% of the Macquarie River flood water flows through the Backwater Cowl. Mr Knop referred to the Macquarie River (Narromine to Oxley Station) Floodplain Risk Management Study and Plan 2008 regarding data on the 1955 flood from the Baroona stream gauge and the Town gauge.</li> <li>• Mr Hossain advised there were no stream gauges standing at Narromine in the 1955 flood event. He also advised that the Baroona stream gauge was installed several years after occurrence of the 1955 flood event. Mr Knop disagreed – he said the 2008 Study provides outflows with specific volumetric figures mentioned. In response, Dr Jempson advised that the flow rates detailed in the</li> </ul>



NO.	DISCUSSIONS
	<p>2008 Study are based on modelling, not on gauge readings from 1955 – most probably using the MIKE 11 model which provided a best estimate at that time. The flood model for Inland Rail is the same as that used for the Council’s flood modelling with the flow splits and the modelled flood outcomes being similar.</p> <p><b>9.5 Route Selection</b></p> <ul style="list-style-type: none"> <li>• Duncan Mitchell provided an overview of the route selection process, noting that the project has been in the planning stage for 16 years.</li> <li>• Mr Mitchell noted the historical timeline to the current status of the project.</li> <li>• Mr Mitchell provided an insight into the multi criteria analysis involving a broad range of quantitative and qualitative criteria applied to refine route and ensure its viability.</li> <li>• In conclusion Mr Mitchell stated that land owners deserve certainty and compensation. He looked forward to the DEP considering the PIR and progressing the proposal to assessment and determination in order that the construction phase can commence.</li> <li>• Mr Knop questioned the veracity of some documents referenced in the Inland Rail Route History 2006-2021, suggesting that some documents do not correlate with the timeline when initially published and appear to have been subsequently amended. Mr Mitchell requested specific examples. Mr Knop responded that he did not have that detail available, but it is about the community having confidence in the accountability of ARTC.</li> </ul>
<p><b>10 Other Agenda Items</b></p>	<p><b>Andrew Knop (Narromine)</b></p> <p><b>1. Access across the alignment</b> For private crossings, ARTC Inland Rail will consult with landowners to consider specific requirements such as farm operations and the movement of farm machinery or livestock. All crossings will be designed to comply with the relevant standards. In addition, ARTC Inland Rail will allow the use of drainage culverts and bridges as a stock underpass, where the dimensions of such structures are adequate. A “call train control process” will allow landowners to call ARTC’s train control in advance and book a time window to cross the track with stock or oversized machinery. Trains will have priority, and a signed agreement will be required between the parties. More information on level crossings can be found on ARTC Inland Rail’s website at: <a href="https://inlandrail.artc.com.au/level-crossings-fact-sheet/">https://inlandrail.artc.com.au/level-crossings-fact-sheet/</a>.</p> <p><b>2. Management of the alignment</b> ARTC will be responsible for rail corridor maintenance activities once Inland Rail is operational.</p> <p><b>3. Consistent application of noise/vibration mitigation eligibility</b> The Environmental Impact Statement (EIS) assesses operational noise and vibration impacts in accordance with NSW Environment Protection Authority (EPA) guidelines:</p> <ul style="list-style-type: none"> <li>o Rail Infrastructure Noise Guideline (RING)</li> <li>o Assessing Vibration: A Technical Guideline</li> </ul> <p>The EIS identifies sensitive receivers that trigger consideration of reasonable and feasible noise mitigation. A range of mitigation measures that can reduce the noise and vibration levels to the relevant triggers are included in the EIS to demonstrate that the impact can be mitigated; however, mitigation measures are not assigned to specific receivers.</p> <p>Post-approval, an Operational Noise and Vibration Review (ONVR) is prepared. This is a detailed operational noise and vibration assessment based on the final project design. Receivers identified as exceeding the relevant trigger levels are assigned reasonable</p>

NO.	DISCUSSIONS
	<p>and feasible mitigation measures to reduce noise/vibration to below the trigger levels in consultation with the applicable property owner. These are the mitigation measures that ARTC Inland Rail commits to implementing prior to operations commence.</p> <p>This is the standard process for the application of noise mitigation for rail projects, and it is not unique to Inland Rail.</p> <p><b>4. Public and farm liability risk exposure</b> During the term of any occupation, ARTC will keep current a public risk insurance policy, and this will be documented in any license or lease agreements for transparency.</p> <p><b>5. ARTC’s management of the compulsory acquisition process, with ARTC frequently providing landholders significantly out of date notification of the commencement of their acquisition process.</b> ARTC Inland Rail is acting as a representative of Transport for NSW (TfNSW) for the formal acquisition process in accordance with the Land Acquisition [Just Terms Compensation] Act 1991 (Just Terms Act). The commencement of the formal acquisition process is subject to approval of the NSW Minister for Regional Transport and Roads. Once Ministerial approval is received, the formal acquisition process and the required minimum 6-month negotiation period do not commence until an Opening Letter has been issued to the landowner.</p> <p>Acknowledging that the formal acquisition process commencement did not align with earlier forecasts, ARTC Inland Rail commenced a voluntary acquisition process for those owners willing to begin discussions. The voluntary process was undertaken in accordance with the principles of the Just Terms Act, ensuring owners would not be disadvantaged through entering these early voluntary acquisition discussions. Voluntary owner negotiations commenced by ARTC Inland Rail will convert to the formal acquisition process upon issuing an Opening Letter. The time spent in voluntary negotiations is not counted as part of the minimum 6-month negotiation period as defined in the Just Terms Act.</p> <p><b>6. Consistent application of whole of property purchase criteria</b> The acquisition of properties is undertaken in line with the principles of the Just Terms Act, regardless of whether the acquisition involves a partial or whole property. This process ensures consistency in the treatment of all owners, along with the ability for an owner to obtain independent professional advice.</p> <p><b>Jane Judd (Narrabri)</b></p> <p><b>1. Did recent surveys detect any more Koalas on the proposed route of the Inland Rail?</b> The Biodiversity Development Assessment Report (BDAR), which formed Technical Report 1 for the Environmental Impact Statement (EIS), has been updated in consultation with the Department of Planning and Environment (DPE) Biodiversity, Conservation and Science Directorate (BCS). It addresses comments provided in BCS’s submission during EIS public exhibition as well as ongoing discussions with BCS regarding the agreed approach to various matters raised.</p> <p>In August 2021, thermal drone surveys were flown at night over the Pilliga forests to search for the presence of Koalas. Follow up day-time surveys were conducted to confirm initial findings from the drone surveys for Koalas. An independent certified expert, Dr Steve Phillips, was engaged to provide advice on the presence/ absence of Koalas.</p> <p>Koalas were recorded at one new location via old scats (west of Gilgandra) and one new location via thermal drone imagery in the Pilliga forests (Baradine Creek). Areas of</p>

NO.	DISCUSSIONS
	<p>generational persistence were mapped in the Pilliga Forest and Bohena Creek area. For the remainder of the proposal site, there is a lack of generational persistence within areas of potential habitat. An expert report has been prepared to map areas of important habitat for the Koala and is included in the updated BDAR.</p> <p><b>2. Is ARTC aware that two creek crossings within the Pilliga are at locations of historic importance to the Koala?</b></p> <p>The biodiversity assessment has considered all existing known records, as detailed in the BDAR. The BDAR included details of the targeted surveys conducted throughout the Pilliga forests, including locations of historical importance to the Koala, such as Etoo Creek near the Aloes picnic area, Baradine Creek, Rocky Creek, Bohena Creek and various other creeks in the area (see page 50 of Technical Report 1 of the EIS). The expert report has also considered historical records and more recent survey findings.</p> <p><b>3. What population trend for the local Koala population is ARTC aware of?</b></p> <p>The findings of the independent certified expert, Dr Steve Phillips, confirmed that recent decades have seen a significant decline in Koala occupancy rates across the Pilliga region, citing field survey results from independent researchers from a variety of sources. He concludes that over the preceding three Koala generations (i.e., 18-20 years), there has been a reduction of as much as 79% in habitat use by Koalas. In 2019, survey results from 104 sites distributed across the southern half of the Pilliga and into the northern portions of the Gilgandra Shire failed to find any substantive evidence of recent habitat use by Koalas.</p> <p>While the reasons for these declines remain to be determined beyond speculation, they collectively include the effects of a prolonged period of drought and high summer temperatures, compounded by the cumulative impacts of high frequency and severe wildfire events.</p> <p><b>4. Is there going to be any fencing along the side of the track. If so, what provisions will be made for wildlife?</b></p> <p>Stock fencing would be provided in agricultural areas to prevent stock from accessing the rail line. More information on fencing can be found on ARTC Inland Rail's website at: <a href="https://inlandrail.artc.com.au/managing-fencing/">https://inlandrail.artc.com.au/managing-fencing/</a>. Targeted fauna fencing would be provided in the Pilliga forests and elsewhere to direct fauna to crossing structures.</p> <p>A Preliminary Fauna Connectivity Strategy has been prepared in consultation with BCS and is included in the updated BDAR. The Strategy identifies fauna connectivity structures and measures to improve connectivity for fauna species following construction. Key features of the proposed design with relevance to fauna connectivity are:</p> <ul style="list-style-type: none"> <li>○ Inclusion of dedicated culverts to encourage the movement of terrestrial (and some arboreal) fauna species and reinstate connectivity. Culverts would include a variety of fauna furniture targeted to key species, and dry passage would be provided all the time. Indicative culvert locations have been identified in the Pilliga forests and Bohena Creek area. The size, number and locations would be confirmed during detailed design and documented in the Final Fauna Connectivity Strategy.</li> <li>○ Inclusion of canopy bridges, predominantly located in the Pilliga forests, and other riparian and woodland corridors intersected by the proposal. These are rope bridges strung between poles and tied into nearby trees to allow arboreal animals to cross above the rail corridor.</li> <li>○ Installation of barrier poles at selected bridges in the Pilliga forests to prevent aerial species flying along creek corridors from flying into the side of trains.</li> </ul>

NO.	DISCUSSIONS
	<ul style="list-style-type: none"> <li>o Fencing specifically constructed to funnel fauna towards crossing structures but prevent access to the rail line. Lengths of fencing would be further investigated in the Final Fauna Connectivity Strategy to allow a balance between fenced and unfenced sections and the associated barrier effect of fencing and consider the risk of flooding and damage.</li> </ul> <p>In closing, a Final Fauna Connectivity Strategy will be prepared post-approval during the detailed design phase.</p> <p><b>5. If not, what provisions will be made to prevent wildlife collisions?</b> Please refer to the above response.</p> <p><b>6. Has the flooding modelling been revised to the satisfaction of DPE?</b> The updated Flooding and Hydrology Assessment Report (FHAR), which formed Technical Report 3 for the EIS, has been updated in consultation with DPE, considering comments provided in submissions and the independent review undertaken on behalf of DPE.</p> <p>To ensure we meet guidelines, criteria, and community expectations, ARTC Inland Rail undertakes a four-tiered peer review process of the flood modelling and assessment. The model and associated assessment report is prepared by JacobsGHD, an ISO9001-certified global engineering consultancy, and is reviewed by a range of industry professionals (from within and external to ARTC Inland Rail). It is then provided to the DPE for review by their independent flood expert.</p> <p>In addition to these formal reviews, ARTC Inland Rail meets monthly with DPE as part of the N2N Hydrology Working Group to address community and regulator concerns and update our flood modelling and assessment work, where required. The updated FHAR addresses the Working Group outputs where key topics have been raised, discussed, and documented with the DPE. DPE is currently reviewing the updated FHAR to confirm it meets their expectations.</p> <p><b>7. How will ARTC prevent major disruption to local flood patterns and water dependent ecosystems?</b> The updated FHAR provides detailed assessment and mapping of flooding conditions, both existing and with the proposal. Flood events modelled range from the 20% annual exceedance probability (AEP) up to the Probable Maximum Flood. The design of the proposal includes about 75 new bridges and about 630 banks of culverts to provide for the management of flows within watercourses and within floodplains during flooding events. Overall, the key findings of the updated FHAR are that there are no broadscale changes to flood regimes within the study area. As such, flood flows to water-dependent ecosystems would be maintained, and no significant impacts are predicted.</p> <p><b>8. Have there been any actual changes to the route given the concern expressed within the Narrabri community?</b> ARTC Inland Rail is confident with the final route alignment between Narromine and Narrabri, and we are not considering an alternative route in Narrabri. The alignment has been refined over many years using an iterative, transparent multi-criteria analysis process to achieve the Inland Rail Service Offering with consideration of environmental and social impacts. Landholders, community, and stakeholders have been informed and engaged since 2015. The Preferred Infrastructure Report (PIR) and supporting Route Selection Summary Report respond to DPE's PIR request on route selection, which confirms there are no significant residual flooding impacts associated with the N2N proposal.</p>

NO.	DISCUSSIONS
	<p><b>9. What will be the relationship just south of Narrabri between the Newell Highway upgrade works and the embankments required to raise the height of the rail line over the existing roads and floodplains? Will there be any conflict, and will it create more flood problems?</b></p> <p>The updated FHAR has been prepared in accordance with the requirements of DPE and relevant guidelines. The modelling has considered the presence of existing infrastructure such as the Newell Highway. Proposed upgrade works to the Newell Highway are still in the preliminary stages of planning; therefore, there is insufficient information available to include these works in any flood modelling for the proposal. ARTC Inland Rail will continue to consult with Transport for NSW during detailed design to minimise potential impacts.</p>
<p><b>11 General Business</b></p>	<ul style="list-style-type: none"> <li> <p><b>Access Across Alignment:</b> Mr Knop sought clarification on how negotiations regarding access across the alignment is negotiated with landholders. Mr Mitchell responded that ARTC has followed TfNSW guidelines on access requirements, however it is a negotiated process with landholders and there is no 'one size fits all' approached. Mr Knop questioned whether there is a standard operating procedure. Ms Johnson responded that there was no standard procedure, and it was important that the landholder's individual circumstances are considered in the negotiation of access requirements.</p> <p>John Zannes said there were numerous considerations in the creation of access crossings. Further, the matters of access, as part of the operation of a property, will be an important consideration under the land acquisition process.</p> </li> <li> <p><b>Public Risk Exposure:</b> Mr Knop enquired as to what the potential risk exposure is to landholders should an event occur, that is associated with their property or its operation, that results in an incident within the Inland Rail alignment. He gave an example of stock on the alignment and requested advice as to what is the liability of landholders. Mr Mitchell took the question on notice.</p> <p><b>ACTION</b></p> </li> </ul> <p>Meeting Closed at 3.45 pm. The Chair thanked all for their attendance.</p>

## Actions

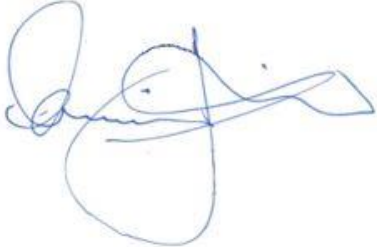
NO.	ACTIONS	ACTION BY	DUE DATE
1.	That ARTC clarify the status/response to the request by the NSW Farmers Association for an independent review of the Multi Criteria Analysis process used to make a recommendation to the Minister for Infrastructure and Transport on the preferred study area for the Narromine to Narrabri section of the Inland Rail project.	PM <b>COMPLETED</b>	<b>Senate Enquiry</b>
2.	That ARTC provide a report on relevant road maintenance guidelines and standards to be implemented on local roads to be used for haulage during the project to the next meeting of the CCC.	KJG <b>COMPLETED</b>	<b>24/09/2019</b>
3.	That the ARTC Inland Rail Social Performance team provide a presentation to the next meeting of the CCC.	JM <b>COMPLETED</b>	<b>24/09/2019</b>
4.	That ARTC provide an updated noise logger location map at the next meeting of the CCC.	KJG <b>COMPLETED</b>	<b>13/03/2020</b>
5.	That ARTC provide advice on future project timelines to the Chair when they are determined.	PM <b>COMPLETED</b>	<b>24/02/2020</b>

NO.	ACTIONS	ACTION BY	DUE DATE
6.	That ARTC provide a response to the Chair regarding the number of landholdings in the Narromine-Burroway component of the study area. <i>Chair's note: There are 23 directly impacted landholders in Focussed Area of Investigation from Narromine to Burroway. There are approximately 120-130 landowners within the Narromine to Burroway N2N Study Area footprint.</i>	KJG <b>COMPLETED</b>	16/03/2020
7.	That ARTC provide a response to how much water and what source will be used by ARTC for construction work? <i>A: Currently the project is assessing the potential of the following water sources: 1. Any available water access licences identified near Narrabri and Narromine; 2. Treated water supply options; 3. Deep aquifer bores. A maximum travel distance of 25 kilometres from a water source to the construction site is desirable.</i>	TR <b>COMPLETED</b>	03/08/2020
8.	That ARTC advise what requirements it will have for dust suppression on its new quarry contractors?	KJG <b>COMPLETED</b>	24/02/2020
9.	That ARTC, subject to tender protocols, provide noise mitigation budget costings.	DM <b>COMPLETED</b>	07/12/2020
10.	That ARTC provide details of the property acquisition budget for the N2N project.	DM <b>COMPLETED</b>	07/12/2020
11.	That ARTC advise how climate change has been factored into the N2N flood modelling?	RH <b>COMPLETED</b>	07/12/2020
12.	That the JacobsGHD Hydrologist meet with Mr Knop to further discuss the latest flood modelling results (in particular, the estimated flood levels), and Mr Knop be provided with details of the area of the catchment, permeability considerations, rainfall intensity calculations and how the incorporation of a 23% increase in impact, as a projection for climate change, has been incorporated into the latest flood modelling.	DM <b>COMPLETED</b>	22/03/2022
13.	That the Chair write to the Department of Infrastructure, Transport, Regional Development and Communications regarding the probable increases in costs for the Inland Rail project.	MJS <b>COMPLETED</b>	18 /12/2020
14.	That ARTC provide confirmation that an area near Webb Siding had come under the control of Local Land Services as a conservation area.	LJ	03/05/2022
15.	That ARTC confirm whether Eucalyptus microcarpa, commonly known as grey box, occurs in community form.	ME	03/05/2022
16.	That ARTC advise what the potential risk exposure is to landholders should an event occur, that is associated with their property or its operation, that results in an incident within the Inland Rail alignment.	DM	31/05/2020

## Next Meeting

The Chair advised that the next meeting would be dependent on whether the DPE decided to exhibit the additional information provided by the Proponent. Mr Silver advised he would keep the Sub-committee informed of any developments.

Meeting minutes approved.



Michael J. Silver OAM  
Independent Chair  
30 April 2022

## Appendix 1

### Outstanding Previous Action 8.1

That the JacobsGHD Hydrologist meet with Mr Knop to further discuss the latest flood modelling results (in particular, the estimated flood levels), and Mr Knop be provided with details of the area of the catchment, permeability considerations, rainfall intensity calculations and how a 23% increase in impact, as a projection for climate change, has been incorporated into the latest flood modelling.

The Proponent forwarded Mr Andrew Knop access to the following files on 18 March 2022 in response to the outstanding Action:

- o 3 sets of transects, pre- and post-development (1%, 5% and 20% AEP events)
- o 2 simulations of the South-East Narromine area (1% AEP event, pre- and post-development)

Further, an online meeting was scheduled with the Proponent's hydrologists on Tuesday 22 March 2022.

Prior to the online meeting, Mr Knop responded to the Proponent with the following comments:

1. *The transect I sent referenced flood depth on the Y axis rather than elevation. Due to the coarse graduations of the depth bands it very difficult to accurately evaluate flood depth on these transects. Flood depth (as per the screen shot provided by the previous hydrologists) allowed the community to relate the model to recent flood experiences, so it would be helpful to have these please.*

2. *I have noticed the northern most Backwater Cowal stream is routed into the Macquarie billabong near the Tantiitha / Mitchell cross roads rather than the Backwater Cowal. Is the flow routing, model rainfall intensity and catchment area maps and figures available please? As mentioned at the last CCC meeting this information is extremely important for trouble shooting any issues with a flood model.*

3. *The 1% AEP flood animation scenario I received is concerning. The event starts with a low to moderate Macquarie flow level, in 50hrs the model has is peaking to a > 20m flood rise in a single inundation event. The BWC starts the event with a nil water level.*

*This scenario does not reflect real world infrequent AEP flooding events in these or any other N2N catchment. Typically, infrequent flood events are characterised by a protracted wet period which saturates the landscape and elevates stream flows followed by one or more rainfall inundation event which results in the peak event. Several minor events often feature either side of the peak event. This characteristic is shared by all the recent Narromine flood events - 1990, 1992, 1996, 1998, 2000, 2010, 2012, 2016. The BWC would not start a 1% AEP event dry. It would likely be backed up east of Wallaby Rd with all tributaries contributing inflow. When the 1% inundation event arrives you then get your flood peak which will be considerably deeper than the model predicts.*

*This is how moderate to major floods arise in the projects area, the model does not represent real world conditions and as such it is fundamentally flawed. If you are running similar scenarios in other catchment areas all will need to be comprehensively reviewed. Design works based on this scenario will endanger communities, farm land and infrastructure.*

4. *The model does not factor in the planned Narromine levee upgrade. The levee lift and extension will result in afflux into the Webb Siding outflow area.*

Post the online meeting on 22 March 2020, Mr Knop forwarded the following report of the discussions for the information of CCC members.

*This week I spoke to ARTC N2N staff regarding flood issues around Narromine as part of a subcommittee action dating back to the Dec 2020 CCC meeting at Narromine. Below is my summary report on the meeting which I send to all members FYI as the model used at Narromine has been replicated on all catchments along the alignment.*

*ARTC flood scenario models flood waters entering a dry Backwater Cowal and a low stream level for the Macquarie River. These waters peak to a 1 in 100 years flood in less than 50 hours and then quickly drain away (documents available at <https://share.artc.com.au/link/jGErcHsFDbkPyBkVuHt76I>.)*

*After reviewing rainfall records relating to floods occurring since Burrendong Dam was built I found the modelled scenario does not represent the actual stream and landscape conditions during any of the significant flood events experienced at Narromine. I submit a major flaw with the model relates to its failure to account for the elevated stream flows and saturated landscapes which set the scene for the significant flood events as actually experienced. Events which have recently been*



*seen throughout Australia with devastating results for local communities. The models also appear to be underestimating the size of many catchment areas along the alignment.*

*Summary discussion points:*

*o ARTC confirmed the flood model used for Narromine has been replicated in every catchment along the alignment with minor variations (i.e., a fast flood scenario delivered into a dry to low stream level).*

*o When ask why they are modelling a scenario that has not occurred naturally in any moderate to high flood since Burrendong Dam was built they replied that their model meets all the recommended guidelines. I asked if they had modelled any other scenarios. ARTC could not recall any.*

*I expressed concern that the Macquarie / Backwater Cowal model has less flood water than previous models and does not represent local experience.*

*Backwater Cowal model depth for medium flood events appears to be less than recent minor floods. I cited a recent local flood events in 2020, ARTC challenged my capacity to do this. I asked them then to evaluate the event themselves using local rainfall data: 55cm flood depth at intersection of Dappo / Wallaby Rd 4th April 2020. Duncan mentioned they are reticent to use local weather and flood depth observation citing them as un-scientific and obstructive. I pointed out that Australian Rainfall and Runoff guidelines requires projects to use local observations particularly when formal monitoring stations are sparse to absent. They then agreed that local knowledge and data is important but provided no clarity around how they would collect or use it.*

*o The Macquarie flood model has flood water accumulating North of the existing Main Western Rail line despite previous models indicating a widespread 100mm overtopping by a 1% event. ARTC stated the new model does overtop the existing rail at two points but had not included an embankment failure. They also acknowledged they had not included the Narromine levee upgrades and any resulting afflux to Webb Siding outflow.*

*o I clarified the significance of the 'climate change escalation' scenario. The N2N green field project must be climate ready and as such is required to be flood immune to a 1% + climate change event. This translates to a 22.8% increase to rainfall inundation intensity. I put to them that this would make a climate ready 1% AEP close to a current 0.5% (1 in 200 yrs.) or larger event. The hydrologist agreed. This means the design works on every catchment that intersects the alignment must be proofed to a flood larger than 1955. I am concerned ARTC have not been disclosing this at alignment flood meetings, the 1% climate event model has never been demonstrated or discussed at our CCC.*

*Summary: I raise concern that ARTCs understated flood impacts, combined with the escalating Inland Rail construction cost, places N2N impacted communities at extreme risk to life, property, and landscape with ARTC unwilling to transparently disclose, evaluate and mitigate these risks. It is very concerning that a Federal Government project continues to fail in providing the community commensurate duty of care and due diligence. ARTC inscribe their documents with "ARTC makes no representation or warranty and assumes no duty of care or other responsibility to any party" in small print indemnity. This certainly fails their documented corporate requirement of transparency, integrity, honesty and probity in community and Ministerial dealings and as such warrant's investigation.*

Andrew Knop