# INLAND ARTC

Meeting title	North Star to Queensland Border (NS2B) Community Consultative Committee meeting 3	
Attendees		
Michael Silver OAM (Independent Chair)		Richard Jane (Gwydir Shire Council)
Geoff Cruickshank (Community Member)		Cr Sue Price OAM (Moree Plains Shire Council)
Robert Mackay (Community Member)		John Carleton (Moree Plains Shire Council)
Andrew Mackay (Community Member)		Cr Rick Kearney
Richard Doyle (Community Member)		Dion Jones
Ian Uebergang (Community Member)		John Carr (ARTC)
Richard Sudholz (Community Member)		Ben Lippett (ARTC)
Alan Pearlman (Community Member)		Mercedes Staff (ARTC)
Observers		
Carl McGrady		Naomi Tonscheck (ARTC)
Glenn Halahan (Aurecon Advisory Board)		Trinity Graham, Hydrologist for Future Freight Joint Venture (FFJV)
Apologies		
Dotov Cov		

Patsy Cox			
Location	TAFE, Boggabilla	Date & start time	3 April 2019, 1.10 pm ADST

То	pic	Discussion
1.	Welcome	• The Chair welcomed all to the meeting, noting that Mercedes Staff, ARTC Manager Stakeholder Engagement (North) had joined the Community Consultative Committee replacing Helena Orel. Mr Silver also welcomed Carl McGrady on behalf of the Toomelah Aboriginal Lands Council as an observer.
2.	Declarations of interest	<ul> <li>Michael Silver – expenses of Independent Chair/ Meeting Chair borne by ARTC.</li> <li>Geoff Cruickshank - declaring a non-pecuniary interest as a Director of North West Land Services.</li> <li>Alan Pearlman – declaring a non-pecuniary interest as the study area passes through his property and he has registered an interest in supplying construction material.</li> </ul>
3.	Minutes of Previous Meeting	It was noted that the minutes of the previous meeting held on 20 February 2019 were approved on 11 March 2019.
4.	Business Arising	<ul> <li>Amendment to Previous Minutes</li> <li>Ian Uebergang highlighted that the deferral of MCA process review and revised engineering and costings is not adequately represented in the final minutes of the meeting of 20 February 2019.</li> <li>Mr Uebergang noted that he made the point at the previous meeting that the MCA report was originally to be delivered in third week of November 2018, then to coincide with a meeting with CEO Inland Rail on 10th December in Millmerran before that meeting was cancelled and deferred to 21 December 2018. The presentation of the information was then further deferred to late February 2019, then early March 2019, and now early April 2019. The engineering update and costing comparison for Option A and Option D1 was promised at the same time. Mr Uebergang confirmed that he</li> </ul>



	<ul> <li>made this point, in this manner, to highlight the continual deferral of the promise by ARTC to provide this information to the community.</li> <li>It was resolved that the minute be amended to read: lan Uebergang took exception to the ongoing delay in the provision of the MCA Independent Review Report and the detailed comparative costing information, noting that ARTC had advised it would be provided in the third week of November 2018, then by 10 December 2018 for discussion at the meeting with Inland Rail CEO on that day, then late February 2019 and now delivery of the report has been extended further. He expressed disappointment that the detailed report appears to have stalled, with no confirmation as to when the information will be provided.</li> </ul>
5. Response to Actions	<ul> <li>Actions from previous meeting.</li> <li>It was noted that the following actions would be addressed as part of the proponent's presentation.</li> <li>5.1.1 That ARTC advise a when a joint workshop of the hydrologist, structure and drainage technicians along with the key stakeholders can be held. ONGOING</li> <li>5.1.2 That ARTC provide a presentation by the hydrologist on the flood modelling for the project at the next CCC meeting. COMPLETED</li> <li>5.1.3 That ARTC provide adrification on the '6 kilometres of bridges' matter at the next CCC meeting. COMPLETED</li> <li>5.1.4 That ARTC provide advice at the next CCC meeting as to whether data from ecological surveys could be made available to individual landholders on a property-by-property basis. COMPLETED</li> <li>5.1.5 That ARTC provide advice at the next CCC meeting on entry protocols to be implemented to mitigate potential conflict with crop spraying operations on properties. ONGOING</li> <li>5.1.6 That ARTC advise the Independent Chair when the independent review of the Multi Criteria Assessment (MCA) has been presented to the CEO of Inland Rail. COMPLETED</li> <li>5.1.8 That the questions under 'Other Agenda Items' be considered at the next CCC meeting as follows:</li> <li>Isn't the MCA process flawed due to:         <ul> <li>A lack of effective engagement with all effected and potentially effected landholders, community groups and Regional Councils prior to selection of preferred Option D1? COMPLETED – RESPONSE PROVIDED</li> <li>Inadequate consideration of environmental risks? COMPLETED – RESPONSE PROVIDED</li> <li>Engineering design assumptions and cost comparisons between Option D1 and Option A that were wildly inaccurate? COMPLETED – RESPONSE PROVIDED</li> <li>Condeute provision for access to Inland Rail for Goondiwindi and South West Queensland? COMPLETED – RESPONSE PROVIDED</li> <li>Engineering design assumptions and cost comparisons between O</li></ul></li></ul>



	for NS2B? COMPLETED - RESPONSE PROVIDED
	<ul> <li>Can Inland provide a detailed plan as to where the bridging is to be</li> </ul>
	located? DEFERRED - PENDING REVIEW OF FLOOD MODELING
	• How can a review of the costings of Option A relative to Option D1,
	with the benefit of updated hydrology, be done without detailed
	engineering designs for Option A? DEFERRED - DATE TO BE
	ADVISED
	<ul> <li>Will the MCA review and the review of costings for Option A vs Option</li> <li>D1 be periously considered and could it shapes the determination of</li> </ul>
	DT be seriously considered and could it change the determination of
	ADVIGED
	• Consideration of the outstanding actions was deferred at this point in the meeting.
	Subsequently, after the presentation of the Proponent's Report, notations as to the
	status or completion of each action was noted as detailed in bold capitals.
6. Correspondence	• The following correspondence was noted with a copy previously forwarded to
•	members:
	1 John Corr. (Draiget Manager NS2D, ADTC), Despending to action 5.1.2 and
	requesting amondmont to the minute in the meeting of 5 December 2018 that
	stated that Option D provided for 6 kilometros of bridge structures. Mr Carr
	requested that the minute be amended to read - "that if you were to add up all
	the bridges and structures along the full alignment you could potentially be
	close 6km worth of structure, however the design is still in development "
	• Dion Jones indicated that it had been previously advised to Goondiwindi Regional
	Council by ARTC that there would be up to 6 kilometres of bridges on the preferred
	option route. Cr Sue Price indicated that she understood from the December meeting
	that there would be 6 kilometres of bridges but was unsure of the context of the
	statement and as to whether that related to a preliminary consideration or a final
	design.
	• Mr Carr apologised for any confusion. He advised that the proposed Condamine
	floodplain crossing includes 6 kilometres of bridges whilst on the North Star to
	Queensland Rail alignment there is 3.8 kilometres of bridges. He advised there are a
	number of other structures involved with the total length of bridges and other structures
	at this point being approximately 5 kilometres.
	Mr Uebergang indicated that it had been previously raised on several occasions with
	senior ARTC engineers that 6 kilometres would be installed and this had not been
	defined of questioned.
	• Will Calleton holed the processes followed in developing major projects and highlighted the various levels of refinement that occur in the development of the finalized project
	He suggested that there is a need for greater clarity and simplification in the
	dissemination of technical information to the community
	Mr Carr acknowledged Mr Carleton's comments and advised that a localised approach
	had been recently taken to the flood impact issue with local technical working group
	reviewing its flood plain modelling.

- Mr Carr sought feedback and involvement on project issues and particularly on flood impact matters.
- Cr Price supported Mr Carr's initiative to implement methods to assist the community

	ARTC
	<ul> <li>in better understanding the project and particularly specific issues that will impact the community.</li> <li>Richard Doyle highlighted the context in which questions of flooding have been raised. Mr Doyle noted that flooding issues have been of concern since the preferred alignment was announced, particularly in relation to increased impacts and flood diversion issues for business and the community in the valley. Mr Doyle noted that ARTC had meet with landholders regarding flooding early in the process but suggested it was extremely difficult for these landholders to review hydrology and make comment without any real knowledge of what was being constructed. He indicated that specific detailed information on flooding impacts, at a property by property level, was necessary before comment could be provided by landholders. Mr Doyle conceded that this level of hydrology information may not have been previously available, however in the context of landholders being able to comment on the impacts of flooding it does not necessarily relate to understanding the technicalities of the information provided but rather the quality and level of detail that is provided. Mr Doyle noted that information on velocity, flood heights and timing had been provided but there was no context to this information unless there is knowledge as to what the design will be.</li> <li>Mr Lippett advised that all design, including structures and flood impact detail would be contained in the Environmental Impact Statement (EIS) for public review and comment during the exhibition period. He indicated that the EIS is expected to be submitted to the NSW Department of Planning and Environment (DPE) for review in August 2019 with public exhibition anticipated following completion of this review.</li> <li>Mr Carr confirmed that the detail of the feasibility engineering design, which is almost completed, will be shared with landholders in advance of the EIS being finalised. He advised that completion of the engineering design and commentary on i</li></ul>
7. Proponent's Presentation	John Carr, Ben Lippett, Mercedes Staff from ARTC presented the Proponent's Presentation whilst Trinity Graham, Hydrologist for Future Freight Joint Venture (FFJV) and Glenn Halahan (Aurecon Advisory Board) provided specialist presentations.
	Hydraulic and Hydrology Design
	<ul> <li>A presentation on the flood modelling was provided by Trinity Graham.</li> <li>Ms Graham provided an overview of the process noting that modelling has been based on the Office of Environment and Heritage (OEH) hydrologic and hydraulic models with the models calibrated against historical data and community input.</li> <li>Ms Graham advised that based on the calibrated hydraulic model the design has been mitigated to limit the change in flood level to 10mm at sensitive receptors. Further, there will be minimal impact on flood flow across the floodplain and to the trafficability of roads.</li> </ul>



• Ms Graham noted that four catchments are subject of analysis:

- Macintyre Brook
- Macintyre River
- Dumaresq River
- o Ottleys Creek
- Ms Graham advised that there had been a strong focus on the Boggabilla stream gauge in the calibration of the model as it has a high level of reliability and is very close to the probable alignment.
- Mr Doyle asked, with reference to Ottleys Creek, how flooding is measured out of the sub-catchment when the calibration of the model is based on the Boggabilla stream gauge? Ms Graham explained the calibration process advising it has two stages; the first based on the whole catchment utilising a stream gauge on Ottleys Creek and then matched against other gauges in the catchment such as the Coolatai gauge. Mr Doyle noted that Coolatai was high in the sub-catchment and that Ottleys Creek water won't reach Boggabilla it will flow down the Whalan Creek system. Ms Graham responded that calibration of the model does not just rely on stream gauges with flood levels, aerial photography, community feedback and local data also considered.
- Alan Pearlman noted that the last big flood through Coolatai was in 1976 and that since that time considerable changes in land use has occurred resulting in changes in topography. Ms Graham confirmed that the model picks up changes in topography at different years. She highlighted that in 1976 water extended across the whole floodplain, whilst in the 1996 and 2011 events flood water moves around the various level systems. Ms Graham advised that the model mimics the typographical conditions that existed at the specific time.
- In terms of consideration of historical events, these are related to how the floodplain topography is now and the implication of levees on flood flows to establish a base case. Then the roughness of the land (vegetation type) is factored in.
- Mr Pearlman clarified that he was referring in his earlier question to upstream structures that have changed flood patterns. Mr Jones highlighting that constructed waterways have concentrated flood flows. Ms Graham noted the comments and indicated these matters can be tested. This may change the flow and velocity of the water, but the model allows for the worst-case event where the whole catchment is flooded.
- Mr Pearlman then questioned whether intensity and concentration, particularly of local events has been tested in the modelling. Ms Graham advised that the design event model takes account of the worst-case event. Various scenarios can be tested – testing has been undertaken on blockage and climate change.
- Ms Graham explained the hydrological model calibration and presented hydrographs from the river systems within the sub-catchment.
- Ms Graham then moved to the hydraulic model and advised that a sub-model created from the upstream extent of OEH model to downstream of Boggabilla with a 30 metres grid adopted for the calibration phase to incorporate topography and roughness to represent different terrains. Key to the calibration of the hydraulic model is the levels and flows comparison at Boggabilla stream gauge and the evaluation of recorded flood heights, aerial photography and community information.
- Mr Uebergang noted that the Boggabilla stream gauge did not take account of all water that flowed down the Whalan Valley. Ms Graham advised that Boggabilla was only one gauge and other gauges are considered in the calibration process.
- Ms Graham presented graphs detailing the hydraulic model results for 1996 and 2011



flood events together with inundation maps and recorded flood levels for the 1976, 1996 and 2011 flood events with comparatives to the flood level modelling.

- A number of photographs of specific locations were shown with associated predictive inundation based on the hydraulic model.
- Ms Graham then presented animations showing the inundation of the 1976, 1996 and 2011 events. The changes in flow paths and areas of inundation were noted, particularly the implications of levees in 1996 and the differences in inundation and the flow of water from different locations in 2011.
- Alan Pearlman questioned the coverage area of the model noting that the farming country near Yetman extending towards Inverell was not covered in the model. Ms Graham advised that the area is considered in the hydrologic model which covers the whole catchment. The in-flows and other data from hydrological model are considered in the hydraulic model.
- Mr Pearlman reiterated his concerns regarding the changes in landform over the last ten years and sought reassurance that these changes were considered in the modelling. He advised that there had been considerable contouring undertaken in the area back towards Inverell which has significantly changed flow paths. Ms Graham indicated that changes could be tested but that there was a focus area for the modelling with external inflows considered but this is limited to historical data.
- Mr Pearlman questioned how the impact of intensity he had highlighted would be factored into the development of the model. Ms Graham provided consideration of climate change as an example, where by rainfall intensity is increased by 23%. She also advised that the modelling took account of the worst-case scenario, that is the whole catchment has increased rainfall.
- Mr Pearlman expressed serious concern at the area subject to consideration for the hydrological modelling. He strongly suggested that this should be extended by some 60 to 100 kilometres. He advised that there had been a major flood in Ottleys Creek since 1976. During the 1996 and 2011 events there had been no major flooding in this area. He questioned the OEH data in respect of banks on the floodplain.
- Mr Carr acknowledged the issue regarding unrecorded structures that have changed the landform. Ms Graham made the point that with these structures there may be higher peak flows.
- General discussion proceeded on the availability of mapping and flood data in the Ottleys Creek area, Mr Carr agreed that methods to capture this information for input into the modelling were required. He indicated he would discuss options with interest parties.
- Mr Sudholz explained the impacts of major events, such as dam failure, noting it had a catastrophic local impact but little effect further downstream.
- Ms Graham noted that the 1996 and 2011 hydraulic models compare well with the available data.
- Ms Graham advised that design flows for the Design Event Modelling were calculated in accordance with the requirements of Australian Rainfall and Runoff 2016 (ARR 2016). Design rainfall for each hydrologic model was derived from intensity-frequencyduration (IFD) curves extracted from the Bureau of Meteorology 2016 Rainfall IFD Data System.
- Ms Graham explained the Annual Exceedance Probability (AEP) method. A flood with a 1% AEP has a one in a hundred chance of being exceeded in any year.
- The modelling will involve 20%, 10%, 5%, 2%, 1%, 1 in 2000 yrs AEP, 1 in 10,000 yrs AEP and the Probable Maximum Flood (PMF) [Noah Flood].



- Ms Graham explained the developed case modelling. This involves using the existing base hydraulic model, (that is the current state of development and the calibrated hydraulic sub-model adopting the 2011 topography) and including the proposed rail alignment, local road changes with all bridge and drainage structures added.
- Ms Graham advised that design flows are based on the Flood Frequency Analysis. She advised that preliminary results from the design event analysis predicted flows significantly higher than what was expected for the 1% AEP flood event (3,834m3/s) based on the FFA assessment (3,053m3/s) at the Boggabilla gauge. This is due to the inherent assumption in design event analysis that the entire catchment will experience rainfall of the same magnitude. In an actual rainfall event, it is highly unlikely that all catchments will experience the same AEP flood event.
- In response to a question from Andrew MacKay, Ms Graham advised that the flow will be factored back to represent a more real situation. She also indicated that despite the predicted higher flows the change at the gauge may not be much in terms of level. Consequently, a factor has been applied to the four major inflows (Macintyre River, Dumaresq River, Macintyre Brook and Ottleys Creek). This factor was selected through iterations to achieve reasonable agreement with the 1% AEP flows in accordance with the FFA. A uniform factor of 0.7 was selected for all inflows, but it is acknowledged that the application of a uniform factor is arbitrary. This will ensure the design event, being one of the factors upon which the engineering design is based, has a degree of reality. This ensures that the engineering design (such as bridge design) addresses the real impact with consequential cost benefits
- Cr Price sought clarification on the reason for lower model flows in the 10% and 20% AEP events. Ms Graham advised it was the result of the uniform factor endeavouring to provide a balance across all probabilities.
- Ms Graham presented a map and associated data of the 1% AEP existing case peak water levels and associated data from across the whole catchment.
- Mr Pearlman asked what intensity of rainfall would be required to give rise to a 1%AEP. Mr Carr advised that the relevant rainfall data is obtained from the Bureau of Meteorology (BoM). The BoM website provides intensity information.
- Robert Mackay observed that there are large areas banked off that are not identified on the 1% AEP map. He concurred with Mr Pearlman's comments regarding banks in the Ottleys Creek area. Mr Mackay highlighted unidentified banks that it would appear have not been considered in the modelling. Mr Carr advised that ARTC is relying on the OEH mapping and data. He acknowledged that the OEH data would appear to be deficient and sought local community assistance to identify unrecorded banks and structures on the floodplain.
- Mr Robert Mackay suggested that even identified banks may be above the recorded level. He expressed concern that the flood modelling had almost reached finality and it is discovered that the base data is flawed. Mr Carr stated that he, along with the current team had not been aware of issues of unrecorded structures being previously raised by landowners. Mr Doyle pointed out that his discussions with the consultants regarding flooding related to calibration and not to impact of floodplain structures.
- Ms Graham commented that the additional data can be readily input to the model. This will then require some review of the design considerations.
- Mr Andrew Mackay stated that the rural community concerns regarding the impacts of flooding had been raised since the inception of the project. Given the significant implications of this issue he was amazed that the concerns of the community had not been taken seriously, in the collation of base data and information.



- Mr Pearlman suggested that detailed modelling of the Ottley Creek area be undertaken on the basis of an upstream rainfall event of 200-250 millimetres and assess the impact.
- Cr Price enquired whether satellite imaging would be beneficial to understand the changes in topography and installation of structures. Ms Graham indicated that this is occasionally utilised but noted that the floodplain is continually changing.
- The Chair expressed concern at the apparent lack of regulatory control of banks on the floodplain. Mr Uebergang detailed examples of structures on the floodplain which were installed over thirty years ago and are still not approved by the relevant government agencies and consequentially are not on the OEH mapping.
- Mr Uebergang also expressed concern regarding the accuracy of the LiDAR mapping due to apparent deficiencies/oversights in the mapping. Mr Carr acknowledge that a comparative review of the LiDAR mapping relative to the OEH mapping will be necessary to ensure accuracy. He again sought community and landholder input to address inaccuracies in the base mapping. Mr Lippett indicated that OEH had advised that its mapping is being further updated. Mr Carr advised further discussions regarding the mapping would be undertaken with OEH.
- In response to a question from Mr Doyle, Ms Graham confirm that the model is calibrating to the Boggabillia gauge given its accuracy the modelling goes beyond Goondiwindi.
- Mr Doyle noted the record floods that have impacted Goondiwindi and highlighted that any structure upstream has potentially significant implications for the town.
- The Chair enquired as to the level of government agency regulation of structures on floodplains in the region. Cr Price suggested that whilst regulations are in place, no-one appears to be applying them.
- Mr Robert Mackay expressed concern at the similar height of the 2011 flood event at Boggabilla relative to the 1976 event considering the 2011 event was a smaller flood. He noted that the construction of levee banks in the intervening years must have been the major contributing factor. Mr Mackay suggested that the floodplain is now at a tipping-point.
- Ms Graham provided detail on the inundation and velocities on the Macintyre floodplain and impacts on major roads. She detailed the preliminary design criteria which will be used for design guidance with the acceptable afflux defined through stakeholder engagement. It was noted that the acceptable afflux for dwellings and sensitive infrastructure is 10 millimetres. Ms Graham advised that velocities are not to exceed 2.5 m/s at outlet of structures to minimise erosion and scour potential.
- Ms Graham and Mr Carr outlined the requirement to address climate change noting that rainfall impact is likely to increase.
- Mr Doyle expressed concern at the potential of erosion through the structures and beyond. He questioned how velocities can be maintained below 2.5 m/s. Ms Graham acknowledged you can only "squeeze it" so much but that erosion protection devices will be installed.
- Mr Jones expressed the view that a velocity of 2.5 m/s was too fast in this area. Ms Graham responded that this is a standard and is unlikely to occur in most locations.
- Mr Doyle questioned how a structure can be installed with a higher level of water held, constrained and then released without creating erosion. Ms Graham advised that the height of water to be held would be from 100-200 millimetres. Mr Doyle suggested that retention times for flood water could be up to 30 hours. Ms Graham indicated this issue would be analysed.



- Mr Uebergang noted that the 1976 flood is in most people's minds and suggested that the design would cause water to bank up and concentrate floodwaters.
- Ms Graham outlined the basis of the design. Mr Uebergang requested copies of the design mapping. Mr Carr advised that the flood and design mapping may need to be reviewed given the changes in landform identified during the meeting.
- Mr Carr confirmed that adjustments to the flood modelling would be undertaken given the matters that have been brought to ARTC's attention at both the Flood Workshop and the CCC meeting.
- Cr Price and Mr Carleton expressed concern that the presentation should not be publicly released until it is reviewed.
- The committee formed the opinion that the presentation on flood modelling should be received but given the identified need for review of particular aspects of the flood modelling and the developed case (design) that the presentation not be placed on the proponent's website.
- Ms Graham presented images of bridge structures, culverts and overpasses for the committee's information. Ms Graham also confirmed that the bridge over the Macintyre River has adequate volumetric capacity.
- Mr Doyle questioned the status of the existing railway line. Mr Carr advised that it will remain as removal is not part of the scope of the project.
- Mr Uebergang asked if the project and the proposed alignment would affect the Toomelah village. Mr Carr advised there would be no impact.

### **Alignment Selection Compliance Review**

(see the Inland Rail website, NS2B page for a copy of presentation)

- Mr Glenn Halahan of Aurecon provided a presentation on the compliance review of the alignment selection process for the North Star to Border section of the Inland Rail.
- The review analysed process compliance in respect of the two phases of alignment selection:
  - Phase 1 ARTC Process to Refine the Route
  - Phase 2 Options Assessment and MCA Procedure
- Mr Halahan made the point that in terms of the compliance review his role was not to consider where the decision was right or wrong but rather whether there is sufficient evidence to indicate that the proper process was followed to achieve the selection decision.
- Mr Halahan stepped the committee through the components and elements of the Phase 1 Continuity process and noted that:
  - The Western Corridor was ranked 1st due to strong community preferences dominating the scoring compared to Base Case East.
- Mr Andrew Mackay questioned how the Western Corridor could be selected over the eastern option when the Western Corridor is in the middle of the country that is subject to flooding. He questioned how the community preference could be so influential.
- Mr Halahan outlined the corridor widening and alignment options associated with the Phase 2 Preparatory Study: MCA assessment.
- In terms of Phase 2 Preparatory Works Route Selection Compliance
  - Option D1 was ranked 1<sup>st</sup>
  - Option A was ranked 3rd (behind Option D)
- The presentation detailed the personnel involved in the selection processes and the methodology for the decision making.
- The presentation provided a timeline of the three studies.



- In conclusion, Mr Halahan found the process followed through the options studies and the outcomes of each study are sufficient to demonstrate compliance with the Process to Refine the Route. On this basis, there is no reason for the outcome of the Phase 1 Continuation and Phase 2 Preparatory Alignment studies to unravel works or decisions made in these studies.
- Mr Doyle questioned what was the source of the community feedback that supported the western alignment option given the community feedback was the significant factor that gave it precedence over the eastern alignment route. Mr Halahan said that the community engagement mapping indicated that consultation had occurred in the subject area, however he could not advise specifically who had been consulted.
- Mr Doyle questioned the process that was used in refining the western option and specifically the requirement to "evaluate local community needs". In relation the review of the process the essence of the question is – "Did the right information get to the decision-making process?" Mr Doyle further indicated that this question also related to the process associated with the selection of Option D1. Mr Halahan advised that the outcome related to the overall scoring governed by the weighting applied to the respective criteria.
- Mr Pearlman acknowledged that it comes down to the overall scoring, but questioned how the significant additional cost of bridges, that have now been required, is considered in the selection process. Mr Halahan noted that these decisions are made at the concept stage when about 10% of design is completed. However, industry says that you will get a representative answer as the design matures and the relative comparisons between options tend not to change.
- Mr Doyle questioned the weightings of the criteria, noting that 12.5% was applied overall to environmental with hydrology represent of 20% of that overall figure or 2.5% overall.
- Mr Andrew Mackay noted that the presentation just validated the process and did not assess the information. Mr Halahan confirmed that his role related to ensuring there had been due process.
- Mr Pearlman suggested that there appeared to be major errors in the costings. In reply, Mr Halahan advised it was an "apples with apples' process in comparing options. Accordingly, assumptions would be consistent across the various options. He noted that at subsequent stages in the process, such as Feasibility there will be further assessment. If it can't satisfy the business case at that point the project may stop.
- Mr Halahan indicated there are three phases to assess the business case with the Multi Criteria Analysis being one of the phases.
- Mr Doyle commented that there appeared to be a limited level of understanding of the project in the early stages, with a significant number of unknowns. Mr Halahan considered the assessment level at the initial stages to be satisfactory.
- Mr Doyle expressed disappointment with the report given that there are potentially serious qualitative issues that can't be considered because Mr Halahan did not have access to this information.
- Cr Price commented that the report on the cost analysis was needed urgently. Mr Carr advised that further engineering design needed to be completed before this analysis can be undertaken.

*Chair's note:* ARTC advise that detailed engineering design is generally a post approval activity.

• Mr Carr explained the flood modelling in respect of comparing Option A and Option



D1. This will involve a review of the validity of the design plus an engineering cost estimate to ensure a true cost comparison between the options. The costings will be independently checked. Mr Carr was unable to provide a timeframe for ARTC to share the cost differential between the two options given the need to review the flood modelling.

- Mr Robert Mackay question how accurate costings can be determined given the uncertainty in design due to the landform issues. Mr Carr acknowledged this will change the D1 design and may impact Option A.
- Mr Robert Mackay raised the issue of diversion of areas of inundation resulting in stock being stranded in floodwaters for an extended period. Mr Carr acknowledged the issue noting that inundation of up to 200 millimetres may be expected and last potentially for up to 72 hours.

### **Proponent's Presentation**

(see the Inland Rail website, NS2B page for a copy of presentation)

- Mr Carr opened the proponent's presentation and acknowledged the contribution of community members to the recent Flood Model Workshop, noting the outcomes.
- Mr Carr provided an overview of the impact on Travelling Stock Routes (TSRs) at three locations.
  - Tucka Tucka Road
  - Intersection of North Star Road and Bruxner Way
  - North of Scotts Road on North Star Road
- Mr Uebergang sought clarification regarding the location of the level crossing north of Scotts Road on North Star Road. Mr Carr indicated he would liaise with Mr Uebergang.
- The committee noted the implications for existing roads where the proposed alignment impinges on the road reserve.
- Concern was expressed as to the accuracy of ARTC's mapping associated with TSRs. Geoff Cruikshank suggested that other TSRs could be affected. Mr Uebergang concurred with Mr Cruikshank and suggested ARTC should confirm the location and status of TSRs with Local Land Services. Mr Lippett mentioned that the identification of the TSRs have been identified from publicly available information and checked via the Local Land Services. The information presented is that of which is the currently mapped TSRs. Richard Jane also commented on the status and management of TSRs from a local government perspective and that while local Council roads may not be TSRs they can be accessed via the Council stock movement permit system.
- Mr Carr provided an overview of community consultation during the May 2016 to June 2017 period.
- Mr Doyle expressed concern at the quality of the community engagement. He noted that landholders on the southern side of the Macintyre River were not consulted, reiterating that there had been no discussion regarding alignment selection. Mr Doyle stated that the justification for the alignment selection is woefully inadequate.
- Mr Robert Mackay supported Mr Doyle's' comments and noting on one property on the north side of the river, the proposed alignment had been changed to avoid an irrigation development yet on the south side landholders had been presented with an alignment without a change option. Mr Mackay suggested that the local community was strongly against the selected alignment.
- Mr Robert Mackay added that the North Star community supported the project as it saw the Goondiwindi link as significant with the adopted alignment he was unsure "that, that is what they got".



- Mr Carr noted that the Goondiwindi Chamber of Commerce had identified the need for a hub to link to the Inland Rail. He suggested there was an 'appetite' from interested business to put together a proposal for a link and an intermodal facility. He suggested that the western alignment opens-up opportunities for Goondiwindi.
- Mr Robert Mackay questioned the basis of Mr Carr's comments and suggested that discussions should occur with major local businesses as to their interest in accessing the Inland Rail.
- Mr Carr indicated that the ARTC business development manager, Jo Tait had already been in contact with several major business in the area to discuss accessing Inland Rail.
- Mr Carr presented graphics on the '6 kilometres of bridges matter' highlighting that the NS2B section has 13 bridges with a total length of 3.8 kilometres. The bridge across the Mcintyre River will have a length of 1.7 kilometres whilst the proposed Condamine floodplain crossing has bridging with a total length of 6 kilometres; the longest bridge being 2.5 kilometres.
- Mr Carr provided a detailed project overview, explaining the project development process and its current status. Mr Carr committed to providing to the CCC copies of mapping of the flooding regarding the analysis of Option A compared to Option D1.
- Ben Lippett presented the report on Environmental matters.
- Mr Lippett noted earlier comments regarding outstanding community engagement to occur to inform the EIS and committed to completing remaining community consultation prior to submission of EIS.
- Mr Lippett advised that data from ecological surveys can be provided to landholders.
- In respect of borrow pits, work is still to be undertaken in regard to geological analysis and cultural heritage surveys. He advised that 13 borrow pit locations had been 'locked-in', noting that once approved their sole purpose will be for construction of the project. Further use, beyond the project, will be subject to a separate development consent.
- Mr Lippett outlined ARTC's responsibilities in regard to provision of biodiversity off sets under the Biodiversity Conservation Act 2016. Currently investigating the extent of the offsets required and the mechanisms to address this requirement.
- Mr Uebergang questioned the extent of the construction footprint (viz. beyond the 40-60 metres rail corridor) to allow for the passage of wide machinery, stock and vehicles to travel outside, but alongside the alignment fence, having regard to legislation. Mr Lippett took the question on notice indicating he will interact with impacted landowners and advise the CCC of the outcomes.
- Mr Lippett provided an update on the Economic Impact Assessment
- Mr Lippett noted that in terms of socio-economic analysis, that the social impact and the economic impact studies are being undertaken as separate entities to provide greater rigor in the assessment. He advised that individual opportunities at a local level will be analysed. The assessment will address both the constructions and operational aspects of the project. It is also proposed to work with the Toomelah community regarding employment opportunities through ongoing engagement.
- Mercedes Staff provided a community update.
- Ms Staff stepped the committee through the property entry protocols indicating that considerable attention was being given to ensuring landholders were given adequate notice of proposed entry. Mr Uebergang commented that contact should be

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	<ul> <li>confirmed the day before entry is proposed to avoid potential conflict with agricultural spraying or other critical activities. Ms Staff noted Mr Uebergang's comments.</li> <li>Ms Staff advised that ARTC would have a presence at the upcoming Goondiwindi Show.</li> <li>Ms Staff outlined the changes and revised engagement structure within ARTC.</li> </ul>
8. Actions	<ol> <li>ARTC to confirm how 'The long paddock, A directory of Travelling Stock Routes and Reserves in New South Wales' has been reflected in the currently mapped TSR network at the next CCC meeting.</li> <li>That ARTC provide copies of mapping of the flooding as part of the analysis of Option A to Option D1 comparison to a future meeting of the CCC.</li> <li>That ARTC advise at the next CCC meeting following interaction with impacted landowners, how clearing will be managed having regard to legislative requirements, particularly in timbered country, for the installation and maintenance of fencing including internal property access along fence lines,</li> </ol>
9. Presentation from Observer	<ul> <li>It was agreed following a request by Mr Robert Mackay that observer Mr Carl McGrady of the Toomelah Aboriginal Land Council be permitted to address the committee.</li> <li>Mr McGrady acknowledged the receipt of responses provided by ARTC to previous questions raised by the Toomelah community.</li> <li>Mr McGrady highlighted three major issues associated with the Inland Rail project: <ul> <li>Flooding</li> <li>Cultural and Heritage matters</li> <li>Social Impact</li> </ul> </li> <li>Flooding – Mr McGrady noted that Toomelah was 'ground zero' during major flood events. He highlighted the current impact of unregistered levee banks and other infrastructure on the flow of flood waters and sought assurances that the Inland Rail project would not exacerbate the current problem.</li> <li>Cultural and Heritage – Mr McGrady noted the impact of the project would impact the country on both the Queensland and the New South Wales side of the border. He was still concerned at the impact of the physical structures on heritage sites and the implications of the alignment on cultural activities. He suggested that consideration of the implications of the project on cultural activities was critical – "once this is built in the middle of country, 'walking' can't be undertaken".</li> <li>Social Impact – Mr McGrady advised that 300 people of which 100 are children live at Toomelah. For the children there are limited activities – he suggested that with the railway line proposed to be just one kilometre away that anti-social behaviour could occur and may result in a tragedy.</li> <li>Chair's note: ARTC advise that the Toomelah village is 2.4 kilometres from the probable railway alignment.</li> <li>In conclusion Mr McGrady suggested the impact of flooding was the major concern with the location of the alignment close to Toomelah "not the best". He called on ARTC to undertake more engagement with the Lands Council.</li> <li>Mr Lippett and Ms Staff agreed to further engage with the community to understand the concerns and establis</li></ul>



10. Other Agenda Items	• Could an independent minute taker be employed for future CCC meetings? Or, alternately could the meeting be recorded to aid the Chairman with Minute taking?
	• The Chair advised that from experience it was essential that the context of the meeting was captured in the minutes particularly given the technical and complex nature of discussions. It was agreed that meetings be recorded for minute keeping purposes only.
	• Does ARTC Inland Rail know where the TSR runs along the alignment NS2B? Have Inland Rail met with North West LLS regarding the impact of alignment on the TSR? How many times and when? How are ARTC mitigating the impacts to the TSR and camps in their design?
	<ul> <li>ARTC presented the known locations of TSRs along the alignment and discussed the engagement they have had with North West LLS. Mr Cruickshank presented a book 'The long paddock, A directory of Travelling Stock Routes and Reserves in New South Wales' which did not correspond to the NSW mapped TSRs. ARTC took this information on notice.</li> </ul>
	How will Inland Rail respond if community representatives and local councils do not accept Inland Rail's preferred alignment across the floodplain?
	<ul> <li>Mr Carr advised that until feasibility design had been completed it would not be possible to respond to the question. However, ARTC will continue to work with stakeholders in understanding the project and in developing measures to mitigate potential project impacts.</li> </ul>
11. General	• Nil
business	<b>Next meeting:</b> It was agreed that the date of the next meeting be determined following completion of the review of the flood modelling by ARTC.
	<b>Meeting closed:</b> 6.20 pm AEDT. The Chair thanked all for their attendance.
12. Meeting minutes approved	action of the second se
	Michael J. Silver OAM
	Independent Chair
	29 April 2019