

9 March 2022

ARTC REF# 5-0000-260-EEC-00-LT-0001

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To Shelly McPhee

**CSSI 7474 Narrabri to North Star, Phase 1 (N2NS) Project
Independent Environmental Audit No 2 – Submission and Responses to Findings.
Minister’s Condition of Approval A39**

I refer to the Ministers Conditions of Approval (MCoA’s) issued for the Critical State Significant Infrastructure (CSSI) Project No 7474 Narrabri to North Star, Phase 1 on 13 August 2020 (**N2NS Planning Approval**), and specifically the requirement to submit Independent Audit Reports and the Proponents response to the audit findings to the Planning Secretary within 2 months of undertaking the audit in accordance with **MCoA A39**.

Following the second Independent Environmental Audit site inspection on 8 and 9 of February 2022, I am now pleased to be able to submit to you the second Independent Environmental Audit report for the NSNS Phase 1 project. Please also refer to Attachment 1 – Response to Audit Findings which outlines the proposed actions and / or current compliance status against the identified potential Non-compliance findings and suggested Opportunities for Improvement.

If you wish to discuss any of the above further, have any comments or concerns, please either contact Justin Bate, Health, Safety and Environment Superintendent on JBate@artc.com.au or 0438 952 286 or myself on PBorrelli@artc.com.au or 0407 254 363.

Yours sincerely



Peter Borrelli
ARTC Project Director N2NS

9 March 2022

Attachment 1 - Response to Audit Findings

Table 1 - Identified Non-Compliance Findings

Condition Reference	Requirement	Independent Audit Finding	Recommendation Status	Action / Status
A1	<p>The CSSI may only be carried out in accordance with the terms of this approval and generally in accordance with the description of the CSSI in the Inland Rail – Narrabri to North Star Environmental Impact Statement, Volumes 1-7 (prepared by GHD and dated November 2017), the Inland Rail – Narrabri to North Star Submissions Preferred Infrastructure Report (ARTC, dated December 2019) and (updated BDAR, RtS on the SPIR and RFI responses).</p>	<p>The SEMP was prepared to support pre-construction activities associated with the delivery of the project. The CEMP replaced the SEMP as the key environmental management document for the construction of the project.</p> <p>The SEMP and CEMP provides a management framework to comply with condition A1 and condition A2 that require the</p> <p>N2NS Phase 1 project to be constructed generally in accordance with the description of the project in the SPIR, Environmental Impact Statement (EIS) and the N2NS Phase 1 Conditions of Approval and in accordance with all procedures, commitments, preventative actions, performance criteria and</p> <p>mitigation measures set out in these documents unless otherwise specified in, or required under, the CoAs. Minor ancillary facilities process being updated within the CEMP (refer s4.1). SEMP no longer in use. Refer to C2.</p> <p>A number of non-compliance were identified during the audit period including:</p> <p>A2 – CSSI Compliance</p>	<p>No recommendation required for non-compliance. Refer to the specific IEA comments, evidence, and recommendations for each non-compliant condition.</p>	<p>Refer responses to specific MCoA.</p>

Condition Reference	Requirement	Independent Audit Finding	Recommendation Status	Action / Status
		<p>E13 – Noise Mitigation – Operational Noise Mitigation Measures</p> <p>E65 – Aboriginal Heritage Artefact Recovery</p> <p>E80 – Erosion and sediment controls</p> <p>E90 – Waste Classification</p> <p>Refer to the specific IEA comments and evidence for each noncompliant condition listed above.</p>		
A2	<p>The CSSI must be carried out in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in in the documents listed in Condition A1 unless otherwise specified in, or required under, this approval.</p>	<p>Noted, as above.</p>	<p>As above.</p>	<p>As above.</p>
E13	<p>Noise Mitigation – Operational Noise Mitigation Measures</p> <p>The Proponent must prepare an Operational Noise and Vibration Review (ONVR) to confirm noise and vibration control measures that would be implemented for the operation of the CSSI. The ONVR and identification / selection of any noise mitigation measures must be prepared in consultation with the EPA and impacted sensitive receivers. Where barrier options (e.g. noise walls or mounds) are proposed to be implemented,</p>	<p>At the time of the audit, the Operational Noise and Vibration Review (ONVR) had not been finalised. With construction commencing on site 10 April 2021, the due date for submission of the ONVR was 10 July 2021. ARTC submitted the ONVR to DPIE on 13 August 2021. Consultation is currently being undertaken. Design of any noise walls and at-property treatments is to be finalised, pending outcomes of community consultation. The final ONVR to be lodged in March 2022.</p>	<p>Ensure that the final Operational Noise and Vibration Review (ONVR) with consultation is submitted to the secretary for approval by the due date in March 2022.</p>	<p>ARTC has submitted a draft of the required ONVR on the 13th of August 2021 and have advised DPIE that we expect to satisfy the MCoAs E13 and E14 by March 2022 as per previous correspondence.</p>

Condition Reference	Requirement	Independent Audit Finding	Recommendation Status	Action / Status
	<p>consultation must also be undertaken with the relevant councils. The ONVR must:</p> <p>(a) confirm the appropriate operational noise and vibration objectives and levels for adjoining development, including existing sensitive receivers;</p> <p>(b) confirm the operational noise and vibration predictions based on the final design. Confirmation must be based on an appropriately calibrated noise model (which has incorporated additional noise monitoring, and concurrent traffic counting, where necessary for calibration purposes).</p> <p>(c) Identify / confirm sensitive receivers at which the criteria set out in the Rail Infrastructure Noise Guideline (EPA, 2013) are predicted to be exceeded once the CSSI is operational and in 2040;</p> <p>(d) review the suitability of the operational noise mitigation measures identified in the documents listed in Condition A1 and, where necessary, investigate and identify additional noise and vibration mitigation measures required to achieve the noise criteria outlined in the Rail Infrastructure Noise</p>			

Condition Reference	Requirement	Independent Audit Finding	Recommendation Status	Action / Status
	<p>Guideline once the CSSI is operational and in 2040. This review must consider local climate and impacts on existing cooling devices, and alternative at-property mitigation measures where the physical condition of a receiver building would render acoustic glazing and seals ineffective;</p> <p>(e) describe the final suite of noise and vibration mitigation measures that will be implemented to achieve the noise criteria outlined in the Rail Infrastructure Noise Guideline once the CSSI is operational and in 2040, including the timing of implementation in accordance with Condition E14;</p> <p>(f) include a consultation strategy to seek feedback from directly affected landowners on the noise and vibration mitigation measures; and</p> <p>(g) procedures for the management of operational noise and vibration complaints.</p> <p>The ONVR is to be verified by a suitably qualified and experienced noise and vibration expert. The ONVR is to be undertaken at the Proponent's expense</p>			

Condition Reference	Requirement	Independent Audit Finding	Recommendation Status	Action / Status
	and submitted to the Secretary for approval within three (3) months of construction commencing.			
E65	The Proponent must not destroy, modify or otherwise physically affect any heritage items, including Aboriginal objects, outside of the CSSI construction boundary.	<p>The CIZ was generally delineated with the use of barrier tape and signage. Site inspections of construction areas identified that no disturbance had occurred outside the delineated construction areas during construction works.</p> <p>Incident EVT-0000168 - CH740.500 & CH740.200_South of Yallori Creek_ARTC's Heritage Consultant potentially salvaged items outside the SPIR CIZ. Niche Environment and Heritage advised ARTC on the 19 August 2021 that they completed their mapping from recent artefact surface collection, and it indicated that artefact collection of approximately 70 artefacts occurred outside of the SPIR boundary. DPIE and the ER was verbally advised of the incident on the same day, with Heritage NSW advised on 20 August 2021. A seven-day notification was submitted to DPIE and the ER.</p> <p>The investigation in relation to the non-compliance of this condition has been closed by DPIE.</p>	Review and implement findings from incident investigation.	<p>Salvage of remaining artefacts has been completed and are being securely held</p> <p>Findings from the investigation have been implemented.</p> <p>DPIE has closed out this incident.</p> <p>Department's Biodiversity and Conservation Division (BCD) are investigating the matter.</p> <p>ARTC will continue to engage and consult with the project's Registered Aboriginal Parties.</p>

Condition Reference	Requirement	Independent Audit Finding	Recommendation Status	Action / Status
		<p>As the incident involved the salvage of aboriginal stone artefacts outside of the approved construction boundary of SSI 7474 it is currently being investigated by the Department's Biodiversity and Conservation Division (BCD) under the National Parks and Wildlife Act 1974.</p>		
E80	<p>All reasonably practicable erosion and sediment controls must be installed and appropriately maintained to minimise any water pollution. When implementing such controls, any relevant guidance in the Managing Urban Stormwater series must be considered.</p>	<p>Mitigation measures and erosion and sediment controls are outlined in Table 7-1 of the Construction Soil and Water Management Sub-Plan (2600-0018 N2NS-SP1).</p> <p>Sediment fencing and use of geofabric coverings over stockpiles was observed during the site inspection. Daily inspections are undertaken of erosion and sediment controls with regular maintenance undertaken by a dedicated environmental maintenance team.</p> <p>The design and construction of drainage crossings and piling pads, particularly those inspected during the audit at has improved but has still resulted in erosion of the pads and sedimentation of creek lines and drainage over recent rain events. Batters along the rail corridor works, observed appeared to be generally maintained and was an improvement from the previous audit site inspection.</p>	<p>Ensure all reasonably practicable erosion and sediment controls must be installed and appropriately maintained to minimise any water pollution. Ensure sediment fencing is installed to the correct depths as per the Blue Book (Crooble Laydown). Ensure regular maintenance is undertaken to sediment controls to remove build up. This should be driven by site supervisors' daily inspections and rectified as issues arise. Sediment issues were particularly noted at Yallaroi Creek piling pad pipes.</p> <p>It is recommended that the hydraulic model is continued to be reviewed considering the observations and data obtained during recent rain events.</p>	<p>It should be noted that recent rain events in the New England Region have been above average. Notwithstanding this ARTC will be conducting a review of erosion and sediment control practices on the project with an independent qualified Certified Professional in Erosion and Sediment Control (CPESC) to ensure continual improvement across the alignment.</p>

Condition Reference	Requirement	Independent Audit Finding	Recommendation Status	Action / Status
			<p>It is recommended that the lessons learnt during construction and operation of the Stage 1 piling pads be implemented during the next stage of works consider the impact that saturated catchments have on the volumes of water within creek and drainage lines.</p> <p>Consideration also be given to the installation of larger piling pads and crossings with larger volume pipework, longer shallow downstream faces with larger rock and consideration of gabion baskets where required.</p> <p>It is further recommended that continued review of the design of the piling pads accounting for the above elements should be undertaken in consultation with the CPESC, Engineering and Construction teams to achieve the required outcomes for the current and future drainage crossings.</p>	
E90	All waste generated during construction and operation must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal docket retained for audit purposes.	Waste and Resource ECM has been developed to manage the waste and resource recovery related risks on this Project.	Ensure waste classification is undertaken for all material exported from site in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (NSW	ARTC's Construction Contractor Trans4m Rail classified the material as 'contaminated soil' and confirmed with the MSCP Landfill that they could accept this material.

Condition Reference	Requirement	Independent Audit Finding	Recommendation Status	Action / Status
		<p>On Tuesday, the 19th October 2021 at 6:05pm, Trans4m Rail reported an environmental event to ARTC via Aconex (TRANS4M-GCOR-000986), with further information provided on Wednesday, the 3rd November 2021 at 11:08am (TRANS4M-RFID-000303). This event related to a release of approx. 150L of diesel from the tamper machine at CH651.560, impacting the embankment material below and some material adjacent the embankment. This impacted material was excavated immediately following the event on the 19th October and temporarily stockpiled in a lined, bunded area.</p> <p>On the 27th and 28th of October 2021, this impacted material (approx. 24.1t) was transported and disposed of at the Moree Plains Shire Council (MPSC) Landfill Facility as “Contaminated Soil”.</p> <p>As a result of the further investigations into the event it was later identified that the hydrocarbon impacted material from this event was not classified strictly in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (NSW EPA, November 2014) prior to disposal.</p>	<p>EPA, November 2014).</p> <p>Ensure Contractors are appropriately qualified and trained to assess and manage waste.</p>	<p>The event is not considered to have caused actual or potential environmental harm that is not trivial in nature for the following reasons:</p> <ul style="list-style-type: none"> - The impacted material was transported and disposed of to a landfill licensed to accept material of this nature. The final disposal location being the Moree Cell. - The rectification costs (listed below) will not exceed \$10,000. - The in-situ material onsite was treated with RemActiv Bioremediation concentrate to assist the breakdown in hydrocarbons. <p>Trans4M Rail have conducted training with their Project Personnel regarding waste management and disposal including the requirements of the NSW EPA Waste Classification Guidelines.</p>

Table 2 – Opportunities for Improvement

OFI Reference	Condition Reference	Context	Opportunity for Improvement	Action / Status
OFI01	A4, C4	<p>It was noted during the audit that Revision 0 CEMP and sub plan versions were being utilised by site for the FEMP, CEMP, NVMP, and TTAMP. It was noted that the approved revisions approved on 7/4/21 are the same as the Revision 0 version with ARTC updating the documents to revision 0 following approval from DPIE. DPIE letter received 24/11/21 confirming approval of the:</p> <ul style="list-style-type: none"> – Construction Soil and Water Management sub Plan Revision 1, dated 26/10/2021 <p>DPIE letter received 10/01/22 confirming approval of the:</p> <ul style="list-style-type: none"> – Construction Biodiversity Management sub Plan Revision 3, dated 06 January 2022 	<p>Ensure only CEMP sub plan revisions approved by DPIE are utilised and distributed to the project team.</p>	<p>CEMP sub plan revisions approved by DPIE have been distributed to the project team.</p>
OFI02	A6	<p>Any document that must be submitted, or approval that must be obtained, within a timeframe specified in or under the conditions of this approval may be submitted within a later timeframe agreed with the Planning Secretary.</p>	<p>Recommended that approval letters for all management plans and reports be attached as appendix items to demonstrate compliance status.</p>	<p>The approval letters will be appended to the Management Plans / Sub- Plans as part of the next revision.</p>
OFI03	B11	<p>Inconsistencies noted between versions of management plans uploaded to the ARTC website and the versions currently being utilised by site.</p>	<p>Updated project website with correct management plans being utilised by the project.</p>	<p>Project website will be reviewed to ensure correct management plans are available.</p>
OFI04	C5-C6	<p>Condition wording.</p>	<p>Condition C5 references “the CEMP sub plans listed in Condition 0” – this reference to Condition 0 appears to be a typographical error and is assumed to be referencing Condition 4. Clarification should be sought from</p>	<p>ARTC will request the change with the correct reference in a modification of SSI7474 approval notice with the correct reference. It is noted that this error is also repeated in MCoA</p>

OFI Reference	Condition Reference	Context	Opportunity for Improvement	Action / Status
			DPIE to confirm this reference and the approval modified accordantly.	- A18, C6, E10, E11, E38, E42, E67 and E72.
OFI05	E13	At the time of the audit, the Operational Noise and Vibration Review (ONVR) has not been finalised. With construction commencing on site 10 April 2021, the due date for submission of the ONVR was 10 July 2021. ARTC submitted the ONVR to DPIE on 13 August 2021. Consultation is currently being undertaken. Design of noise walls and at-property treatments is to be finalised, pending outcomes of community consultation. The final ONVR to be lodged in March 2022.	Ensure that the final Operational Noise and Vibration Review (ONVR) with consultation is submitted to the secretary for approval by the due date in March 2022.	See response in Table 1 to E13.
OFI06		<p>Compliance with the Quantitative Design Limits is outlined in Section 5.3.2 of the Flood Design Verification Report for Phase1 Issued For Construction, dated 04/02/2022 (Rev E, Doc No. 3-0001- 260-IHY-00-RP-0006). Consultation on drainage and flooding issues has been undertaken in two stages:</p> <ul style="list-style-type: none"> – Stage 1: Undertaken during the Reference design stage,50%, 70% and 100% in Phase 1.- Consultation began in November 2019 and ended in January 2020. – Stage 2: undertaken after the CoA and associated QDLs were received in 2021 – Consultation began in May 2021 and was completed in July 2021. See Agreed mitigation measures for affected land or property owners is outlined in Tables 6.4. 6.5, and 6.6 of the FDVR. 	Ensure agreements are obtained for all outstanding mitigation measures for Stage 2	ARTC will obtain agreements for all outstanding mitigations where practicable.

OFI Reference	Condition Reference	Context	Opportunity for Improvement	Action / Status
		A number of outstanding mitigation measures pending agreement after Stage 2 are outlined in Table 6.7 of the FDVR.		
OFI07	E28	Flood Design Verification Report	Attach the Department approval letter of the FDVR in Appendix.	The approval letter will be appended FDVR in the next revision.
OFI08		ARTC appointed BMT as an External Independent Peer Reviewer of the FDVR. The Independent Peer Review is contained in Appendix I of the FDVR. The Independent Peer Review concluded that the investigations to date have presented clear guidance for the detailed design requirements and landowner consultation to enable the final design for construction to achieve an acceptable outcome for all parties.	Ensure the document providing the results of the sensitivity tests and a full response to the review comments and the final Peer Review Report is provided in Appendix I of further revisions of the FDVR.	ARTC will action post final peer review.
OFI09	E65 SCS8- Regulator Comments	Fencing and flagging of the project boundaries, particularly environmental protection and no-go zones.	More adequate delineation is suggested with the use of flagging or equivalent measure to clearly delineate the SPIR CIZ and environmental no-go zones particularly in active work or high-risk areas.	ARTC and Trans4m will action to ensure delineation is adequate in active work or high-risk areas.
OFI10	E65	Incident EVT-0000168 - CH740.500 & CH740.200_South of Yallori Creek_ARTC's Heritage Consultant potentially salvaged items outside the SPIR CIZ Niche Environment and Heritage advised ARTC on the 19 August 2021 that they completed their mapping from recent artefact surface collection, and it indicated that artefact collection of approximately 58 artefacts occurred outside of the SPIR boundary. DPIE and the ER was verbally advised of the incident on the same day, with Heritage NSW advised on 20 August 2021. A seven-day notification was submitted to	Review and implement outcomes from incident investigation.	See Table 1 E65 Response

OFI Reference	Condition Reference	Context	Opportunity for Improvement	Action / Status
		<p>DPIE and the ER. The investigation in relation to the non-compliance of this condition has been closed by DPE. As the incident involved the salvage of aboriginal stone artefacts outside of the approved construction boundary of SSI 7474 it is currently being investigated by the Department's Biodiversity and Conservation Division (BCD) under the National Parks and Wildlife Act 1974.</p>		
OFI11	E80	<p>Mitigation measures and erosion and sediment controls are outlined in Table 7-1 of the Construction Soil and Water Management Sub-Plan (2600-0018 N2NS-SP1). Sediment fencing and use of geofabric coverings over some stockpiles was observed during the site inspection. Daily inspections are undertaken of erosion and sediment controls with regular maintenance undertaken by a dedicated environmental maintenance team. The design and construction of drainage crossings and piling pads, particularly those inspected during the audit at has improved but has still resulted in erosion and sedimentation of creek lines and drainage over recent rain events. Batters along the rail corridor works, observed appeared to be generally maintained and was an improvement from the previous audit site inspection.</p>	<p>Ensure all reasonably practicable erosion and sediment controls must be installed and appropriately maintained to minimise any water pollution. Ensure sediment fencing is installed to the correct depths as per the Blue Book (Crooble Laydown). Ensure regular maintenance is undertaken to sediment controls to remove build up. This should be driven by site supervisors' daily inspections and rectified as issues arise. Sediment issues were particularly noted at Yallaroi Creek piling pad pipes. It is recommended that the hydraulic model is continued to be reviewed considering the observations and data obtained during recent rain events. It is recommended that the lessons learnt during construction and operation of the Stage 1 piling pads be implemented during the next stage of works consider the impact that saturated catchments have on the volumes of water within creek and drainage lines.</p>	See Table 1 response E80.
OFI12	E86	<p>Air Quality – dust management during construction</p>	<p>Ensure plant and / or truck haulage operators adjust routes and movements in response to site conditions where dust generating potential is higher.</p>	

OFI Reference	Condition Reference	Context	Opportunity for Improvement	Action / Status
OFI13	E87	Waste – waste segregation	Ensure waste segregation is followed on site to limit cross contamination of bins.	Waste management activities are reviewed by environmental professionals via regular site inspections.
OFI14	E90	All waste generated during construction and operation must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal docket retained for audit purposes.	Ensure waste classification is undertaken for all material exported from site in accordance with the Waste Classification Guidelines Part 1: Classifying Waste (NSW EPA, November 2014). Ensure Contractors are appropriately qualified and trained to assess and manage waste.	See Table 1 E90 response.