

# Inland Rail A2I EIS Response

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Wagga Wagga City Council

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## 1. Synopsis

Despite the city of Wagga Wagga continuing to support the project, a review of the Inland Rail (IR) Albury to Illabo (A2I) *Environmental Impact Statement* (EIS) has revealed several fundamental problems with the accuracy and completeness of the assessment:

1. IR have taken the approach, in their study, to consider only areas of ‘enhancement’ within the scope of the study. Meaning that only locations where construction works are necessary to allow the passage of double-stacked container trains have been considered. They have not considered the full-length of the existing alignment as impacted as part of the planned rail operations. This contrasts directly with the perspective of Wagga Wagga City Council (WWCC), that the entire A2I corridor must be considered in the EIS process, as it involves the enhanced and modified use of an existing piece of infrastructure.
2. Conflicting positions and views in the alignment of the project scope between the major protagonists, Australian Rail Track Corporation (ARTC), The NSW Department of Planning and Environment (DPE) and Transport for NSW (TfNSW), as well as limited consultation with WWCC on issues of concern, has caused the use of inaccurate data, incorrect conclusions, an incomplete EIS, and a risk to the efficient functioning of the City of Wagga Wagga.
3. There has been limited empirical data gathered for the A2I corridor throughout the assessments. WWCC has gathered data to prove the incompleteness of the EIS. Data related to train speeds and traffic counts is inaccurate, making the conclusions, as to wait times and queueing at level crossings, false and misleading in terms of magnitude and effect.
4. There appears to be little to no consideration toward mitigating future issues identified in the EIS (2025-2040), which are not directly within the scope of IR, these ‘pain-points’ especially those related to on-grade crossings will certainly occur in the future and are not addressed at all.
5. No alternative routes for A2I have been evaluated, or at least included in this study. One would have expected that these alternatives be mentioned, at the very least.
6. The EIS admits there are challenges in determining the accuracy of qualitative comparisons for impact assessment. Despite this, no empirical studies were undertaken along the A2I corridor.
7. WWCC affirm that the incomplete and inaccurate EIS, combined with the large number of rail interfaces affected by the A2I scope, will result in community severance and that IR will leave the City of Wagga Wagga with a legacy of adverse environmental impacts through the heart of the city.

The conclusion is that the project, in its current form, holds fundamental risks toward the community and City of Wagga Wagga, either not identified, or incorrectly assessed and/or not addressed in this study.

## 2. Introduction

Wagga Wagga City Council (WWCC) continues to support Inland Rail (IR), a major nationally significant project with the strategic ability to link producers, farmers and businesses to national and global markets; supplementing and reducing our reliance on road freight, generating new opportunities for industries in our region and the City of Wagga Wagga. Wagga Wagga City Council supports the proposed Albury to Illabo (A2I) project.

To ensure the best interests of the community of Wagga Wagga are represented, WWCC has undertaken a critical review of the IR A2I *Environmental Impact Statement* (EIS), as prepared by the project proponent the Australian Rail Track Corporation Limited (ARTC). Through this review process, identified issues and gaps are documented for submission.

The review of the A2I EIS revealed several areas where the impacts of construction and operation have not been adequately assessed nor addressed. This document serves to highlight these items of concern and raises fundamental concerns, which WWCC seeks further environmental assessment and mitigation regarding.

In addition to the review, WWCC has undertaken corresponding analysis of potential IR impacts; to assess the robustness of the A2I EIS and in several key areas, WWCC has identified faults on the A2I EIS assumptions which will need to be rectified - this information has been attached throughout.

Based on a review of the A2I EIS, WWCC believes the impacts of IR, mainly operational, have potential to trigger significant adverse impacts on the community of Wagga Wagga, local businesses and services.

WWCC believe it is essential to correctly assess and address all impacts of IR (instantaneous and developing) at this stage of the project, as there is no recourse for additional expenditure once Inland Rail has been completed. WWCC wishes to eliminate the risk, that the City of Wagga Wagga be left with adverse impacts with no avenues for rectification available from any level of government.

## 3. Issues with the approach of the project supporters

WWCC has established through ongoing discussion with IR, Transport for NSW (TfNSW) and the New South Wales Department of Planning and Environment (DPE), that there is a fundamental disconnect between the proponent and involved parties, over the requirements and responsibilities to assess and address the impacts A2I.

In discussions, IR have made it clear their responsibility is only to consider environmental impacts which may occur through works undertaken at enhancement sites; sites where modifications are being undertaken to accommodate double stacked trains. WWCC's belief is that a full assessment of impacts pertaining to the construction and operation of A2I must be undertaken and significant impacts addressed, cumulative or otherwise.

WWCC has been led to believe by IR over the past few months of consultations, that the A2I project has excluded, from its scope, operational impacts caused by IR. WWCC believes

this to be true but questions the decision to not include operations of the full rail corridor within the scope of A2I and indeed in this EIS and believes this approach to compromise the integrity and effectiveness of the EIS.

In a meeting on Wednesday 7<sup>th</sup> September 2022, with ARTC/IR, TfNSW and WWCC, the Project Director A2I clearly stated that areas outside of enhancement sites do not form part of the scope of the A2I project. In the same meeting, TfNSW refuted this claim stating that the project proponents are responsible for all aspects of construction and operations of the project over the full length of the corridor; cumulative or otherwise, highlighting a significant disconnect in perspectives between these parties.

WWCC would like to note while there have been ongoing discussions with IR about the A2I enhancement sites there has been limited engagement with WWCC regarding the strategic direction of the city and planned population growth. WWCC has invested heavily in rail transport and the IR project through the Riverina Intermodal Freight & Logistics (RiFL) Hub and associated Special Activation Precinct (SAP). The A2I project has failed to consider the wider strategic plan of the city, especially transport related impacts regarding road/rail interfaces, resulting in community severance in the heart of the City of Wagga Wagga (See Attachment A for illustration).

#### **4. Issues with the consideration of alternatives to the proposal**

Requirement 2.1 of the SEARS document requires “an analysis of alternatives to the project” and “a description of how alternatives to and options within the project were analysed to inform the selection of the preferred alternative/option.” A review of the A2I EIS has revealed shortcomings in the process of considering alternative routes and options for the proposal.

The EIS outlines in detail the consideration of strategic alternatives to the wider IR project such as maritime, road and air freight. It also clearly outlines the consideration of alternative rail corridor routes between Brisbane and Melbourne and in more detail, between Seymour and Illabo via Shepparton and Narrandera. It appears, however, once a decision was made to use the existing Main Southern Railway, between Albury and Illabo, no additional optioneering or consideration was given toward the appropriate alignment between Albury and Illabo. No consideration was given, at any stage, to depart from the existing alignment between Albury and Illabo, including in Wagga Wagga.

WWCC is concerned that in, the narrowing of the project scope and impact assessments, from high-level to detailed assessment, consideration of alternatives to a route directly through the CBD of Wagga Wagga has been skipped. The EIS, therefore, does not fully meet the requirements of the SEARs document and falls short of fully assessing alternatives to the proposal.

In light of these findings WWCC has the following concerns regarding alternative options:

1. Alternative alignments should be considered within the EIS as to limit impacts within the City of Wagga Wagga caused by the routing of trains through the centre of the city.

2. Alignments which bypass the urbanised centre of Wagga Wagga should be considered and evaluated with appropriate criteria and these assessments included in the EIS.

## 5. Issues specific to the EIS methodology

WWCC has undertaken an extensive review of the A2I EIS documentation and associated technical papers. The issues, concerns and questions raised during this review are discussed in the following sections.

The DPE Secretary's Environmental Assessment Requirements (SEARS) which outlines the requirements of the A2I EIS requires that the EIS must address both construction and operational impacts of the projects. WWCC has identified through a review of the EIS a general lack of operational impacts. The contents of the EIS and ongoing discussions with IR have revealed the belief by the project proponents that the EIS assessment scope is limited solely to enhancement sites within the corridor. This is reflected in the operational impact assessments, which assess only operational impacts within a given radius of enhancement sites. WWCC believes this contradicts the requirements and intention of the SEARS document.

WWCC notes that the EIS documentation considers operational impacts between the commencement of operation (2025) and the year 2040. The operational impacts, therefore, have only been considered for the first 15 years of operation. This contrasts directly with the 2015 business case which estimates that Inland Rail will not be fully developed until 2049-50 and which projects economic impacts up to 50-years into the future. WWCC maintains that this is a once in a life-time infrastructure project and must therefore be built and future proofed for future generations, something that is manifestly not the case in this EIS.

WWCC's review will first address issues associated with the impacts of operation of IR, followed by issues associated with construction impacts.

### 5.1 Noise and vibration (operational impacts)

The fundamental point of discussion, revealed from the review of the *Operational Noise and Vibration Technical Paper*, is that noise and vibration impacts are only considered within a 2km radius of enhancement sights, this is shown on the attached diagram (Attachments B & C).

The limited modelling undertaken by IR revealed most sensitive receivers (dwellings, schools, hospitals, etc.) were within the thresholds of the *Rail Infrastructure Noise Guidelines* (RING). Locations of importance to Wagga Wagga, where RING criteria were exceeded, are Kildare Catholic College and South Wagga Public School. The EIS proposes that studies of noise and vibration will occur in these locations once operations commence and mitigation measures put in place to meet the RING criteria. WWCC notes the significance of these sensitive receivers as places of education and reinforces that adverse noise and vibration impacts above the RING thresholds are unacceptable and must be rectified prior to the commencement of operations.

The EIS appears to have excluded several sensitive receivers, adjacent to the rail corridor through Wagga Wagga, from the ground-borne noise assessment. The EIS states *“With the majority of residential receivers located at a distance of approximately 45m or greater from the track, across the modelled enhancement sites, the residential night-time period ground-borne noise criterion of  $LA_{max}$ , (slow) 35dBA would be achieved.”* Several houses have been identified within 20m of the rail-line within Wagga Wagga. Streets identified, in the Wagga Wagga LGA, with dwellings within 45m of the rail-line are as follows:

- |                    |                    |                     |
|--------------------|--------------------|---------------------|
| 1. Coleman Street  | 6. Cassidy Parade  | 11. Norman Street   |
| 2. Langdon Avenue  | 7. Brookong Avenue | 12. Bimbeen Street  |
| 3. Higgins Avenue  | 8. Roma Street     | 13. Inverary Street |
| 4. Reddoch Drive   | 9. Mima Street     |                     |
| 5. Donnelly Avenue | 10. Kildare Street |                     |

A study in South Australia, of similar rollingstock and rail operations, has revealed double-stacked trains to have negligibly smaller levels of noise and vibration. Meaning that the operation of double-stacked rollingstock will not generate greater levels of noise and vibration than single-stacked rollingstock. WWCC accepts the accuracy of the study and the applicability to intended IR double-staked rollingstock but disputes the application of this study to the A2I corridor, without any empirical study of noise and vibration being undertaken.

WWCC believes that an empirical study on the A2I corridor using appropriate rolling-stock, motive power, speeds, loadings and lengths is the most appropriate way to determine the impacts of the proposed operations, this should be coupled with both noise and vibration sensing devices at appropriate intervals and sensitive receivers.

WWCC would like to reinforce the following deficiencies in the A2I EIS which must be addressed and rectified:

1. Operational noise and vibration must be considered for the full-length of the A2I corridor. The enhanced operations proposed by IR will have operational noise and vibrational impacts for the full-length of the rail-line not just enhancement locations.
2. Detailed information must be given regarding the on-site studies proposed at impacted sensitive receivers (Kildare Catholic College and South Wagga Public School), outlining the methodology, committed resources and timeframes associated with the monitoring and mitigation measures of noise and vibration impacts. WWCC does not accept that these schools should be allowed to be impacted, with mitigation occurring ‘sometime’ after operations commence.
3. The sensitive receivers, within 45 m of the rail-corridor, affected by ground-borne noise and vibration must be fully assessed as part of the EIS, general assumptions regarding these receivers are not considered to be a sound evaluation.



4. An empirical study, using a train of similar rollingstock, motive power, length, speed and loading, should be undertaken to validate and calibrate the modelling which was used to assess impacts.

## 5.2 Level crossings (operational impacts)

As part of the *Traffic and Transport Technical Paper* the authors have noted that “*impacts to adjacent intersections [of level crossings] would occur with or without the proposal. However, due to the increase in rail services (up to two daily services from 2025 to 2040) it would be more likely to occur*”. No upgrades to level-crossings in Wagga Wagga is therefore proposed.

The Technical Paper has assessed the total closure time of an active (gate controlled) level crossing (gates and lights) with an 1800m train at 80km/h to be 121 seconds (2 minutes). WWCC refutes the assumption that level crossing closure times will be 121 seconds for 1800m trains and has gathered data to disprove IR’s assumption (Table 1). There appears to be no consideration, within the EIS, of the impacts of freight trains which are known to stop or slow while passing through Wagga Wagga, locomotive crew changes at Wagga Wagga platform have resulted in closure times greater than four minutes for the Bourke/Docker crossing for freight trains under 1000m.

WWCC has collected train speeds and gate closure times at the Bourke/Docker crossing to determine the validity of the 121 second claim from IR and have assessed that total closure times are expected to be greater than 121 seconds for a significant portion of rail traffic; the findings are attached in Table 1. WWCC expects and maintains that the frequency and duration of gate closures at all on-grade crossings will increase once IR begins operation.

Table 1. Logged freight train passing variables for Bourke/Docker Intersection.

Train	Closure time (minutes)	Speed (km/h)	length (m)
SCT (Mixed)	<b>4:05</b>	<b>34</b>	970
Pacific National (Intermodal)	<b>2:41</b>	75	1670
Pacific National (Intermodal)	<b>2:32</b>	<b>62</b>	1580
Pacific National (Intermodal)	<b>2:20</b>	<b>69</b>	1517
Pacific National (Intermodal)	<b>2:13</b>	<b>60</b>	1482
SSR (Grain)	1:44	73	953
Qube (Cement)	1:32	<b>61</b>	490
Qube (Cement)	1:15	<b>46</b>	570

There is a discrepancy between the noise and vibration study and traffic and transport study, in the number of expected train movements through Wagga Wagga in the projected operations envelope. The numbers used for level-crossing impact assessment are lower



than the noise and vibration study. This brings into question the effectiveness of the EIS as a holistic document.

The paper assumes the following impacts to level-crossings over the projected operation of Inland Rail (2025-2040):

Table 2. A2I EIS predicted impacts on on-grade crossings.

Location	Year	Queue length (m)	Average impacted vehicles (peak)	Average delay (s)
<b>Bourke/Docker Street</b>	2025	238	57	3
	2040	<b>348</b>	<b>72</b>	4
<b>Fernleigh Road</b>	2025	304	44	7
	2040	<b>724</b>	<b>68</b>	11
<b>Yarragundry Street</b>	2025	10	2	5
	2040	15	3	15

WWCC disputes the traffic counts used to determine operational impacts at the Bourke/Docker intersection, based on available WWCC data, presented in Table 3. This, in turn highlights that queue lengths at the Bourke/Docker intersection will likely be much longer in 2025 than the modelled 238m.

Table 3. Traffic count data for Bourke/Docker Street.

Party	Count year	Average daily (two-way) volume	Heavy vehicle proportion
<b>IR</b>	2021	8,957*	8%
<b>WWCC</b>	2022	12,718	10.73%

\*Traffic counts included in the EIS appear to be only 70.0% of WWCC's estimated traffic based on an actual traffic count.

The level of service of the roads associated with the level crossings has been determined solely through the average delay value. The EIS states that *"An assessment of active (gate controlled) level crossing LOS (Level of Service) was undertaken and found that all level crossings on public roads would operate at a delay-based LOS of A [see Table 4]"*, as such no mitigation measures have been proposed for the on-grade level crossings in Wagga Wagga. WWCC disputes that impacts from gate closures at crossings should be assessed solely through the average delay of all-vehicles using the crossing when a portion of vehicles will experience no delay and another portion will experience excessive and worsening delays.

No consideration has been given in the EIS for the potential adverse operational impacts on emergency services, specifically response and travel times. As shown in Table 1 and Table 3, there is evidence that emergency vehicles will be stuck in queued traffic for excessive periods of time which is likely to worsen. WWCC believes this to be a significantly overlooked issue considering the adjacent Health & Knowledge Precinct; centred around Docker Street

and the Wagga Wagga Base Hospital including ALL emergency care being on the North of the line as well as ambulance and fire services being on the South of the line.

While great attention has been paid to the Bourke/Docker on-grade crossing, as a major North-South arterial road, WWCC acknowledges that forecast impacts of IR are just as severe, if not worse, at the Fernleigh Road crossing. This crossing serves the suburb of Ashmont, an area of Wagga Wagga with noted lower household incomes and socio-economic status (SES). Fernleigh Road serves as one of only four roads to and from the suburb. WWCC affirms that the forecast delays, as indicated in Table 2, will have adverse impacts on the Ashmont community including their access to emergency services. WWCC believes the EIS to be incomplete, as the traffic and transport study does not adequately take into account the adverse effects of level-crossing closure times, both social and economic, on this community.

WWCC notes that the 40km/h speed restriction over the Bomen Viaducts has not been considered in the EIS, this restriction has a drastic effect on train speeds at the Bourke/Docker crossing, this issue is further discussed in Section 5.2.1.

The review of traffic and transport impacts has raised the following concerns:

1. Consideration must be given to the fact that freight trains have been shown to not pass-through Wagga Wagga at the top-speed of 80km/h and are unlikely to do so in the future. Additional delays caused by trains stopping/slowing through Wagga Wagga have not been considered in the analysis of on-grade level crossing, this must be rectified.
2. Average delay to vehicles must not be used as a sole criterion for evaluation of operational impacts on on-grade crossings.
3. There is no threshold provided for vehicle delay or vehicle queuing which would warrant consideration of grade-separation for Fernleigh Road and Bourke/Docker Street.
4. The EIS must take into consideration social and economic impacts caused by on-grade crossing closure times, especially concerning the Fernleigh Road crossing.
5. Corrections must be made and a consensus reached by IR, on the planned number of train movements through Wagga Wagga in 2025 and 2040. WWCC also notes that upper limits must be set on train movements throughout planned operations as to limit impacts within those assessed in the EIS.
6. The impact of the long-term 40km/h speed restriction 3km from an on-grade crossing has not been considered in the EIS. This will cause longer closure times at Bourke/Docker and Fernleigh Road crossings.
7. No guarantees have been given that a temporary speed restriction in the vicinity of an on-grade crossing will be rectified in a timely manner as to limit the impacts to the crossing. As shown by the restriction on the Bomen Viaducts, a temporary restriction

may remain in place for more than five years. These commitments must be made to limit the impacts of operation on Wagga Wagga's transport network.

8. No assessment of the cumulative costs associated with the additional delay's which will occur at the on-grade crossings in Wagga Wagga has been made.
9. The operational impacts on emergency services and consequential impacts on the safety of the inhabitants of Wagga Wagga have not been considered.

#### 5.2.1 Compounding impacts of the Bomen Viaducts

WWCC notes the current temporary speed restriction of 40km/h on the viaducts between Wagga Wagga and Bomen and asserts that the slowing of freight trains for this restriction will have adverse impacts for on-grade crossings within the city as reflected in Table 1. WWCC has received information that this restriction is due to 'track geometry' and is not forecast to be removed until mid-2026. This restriction will have continuing impacts into the commencement of operations for IR. WWCC also notes that these track-works are not forecast for inclusion in the construction phase of the A2I project.

It is common knowledge in the Wagga Wagga area that the viaduct crossing the flood plains is in poor structural condition and exhibiting cracking in its structural members. Rectification works in the form of mid span supports has not resolved this problem and there remains a speed restriction in place of 40km/h for all trains, as noted above. There is no intention for this project to rectify or replace the viaduct and as such the sweeping assumption that the IR trains will travel through the city at 80km/h is risible and, in fact, impossible.

The 40km/h speed restriction over the viaducts is located less than 3km from the Bourke/Docker intersection. A 1800m train, would therefore, only begin accelerating beyond 40km/h toward 80km/h, 1.2km prior to the level crossing, a relatively short distance in railway terms.

The following concerns have been identified regarding the Bomen Viaducts and their cumulative impacts on traffic and transport in the City of Wagga Wagga:

1. The Bomen Viaducts and their associated speed restriction must be included in the assessments of the EIS, to fully account for the impacts at on-grade crossings.
2. Rectification of the Bomen Viaducts to lift the 40km/h speed restriction must be included in the scope of enhancement activities of the A2I project, to realise the core objectives of the project: to move freight at maximum speed.

#### 5.2.2 Attempts by WWCC to resolve the issue of on-grade crossings

There has been ongoing community and technical discussion around the delay and safety of on-grade level crossings, throughout the full alignment of the A2I project. Two urban on-grade level crossings in Wagga Wagga, Bourke/Docker Street crossing and Fernleigh Road crossing, have been the focus of discussions. Inland Rail has not proposed any enhancement to these sites as they are outside of the scope of the project. It is proposed that these crossings remain untouched as part of the A2I project.

The *Grade Separating Road Interfaces Program* is a concurrent capital works program being delivered by TfNSW which has identified 26 on-grade crossings of state and regional roads which are being investigated for grade separation; Bourke/Docker crossing has been considered as one of these 26 sites. As part of this program and to aid in investigation, WWCC has provided concept designs for both an overpass and underpass grade-separation of Bourke/Docker Street to TfNSW. However, this program's scope excludes all local roads (Fernleigh Road) from this funding.

Due to the constrained nature of the site, the Bourke/Docker Street crossing has not been prioritised for funding in the program, nor has it been ranked within the priority list. Council notes that the multi-criteria analysis, undertaken to determine ranking, does not directly consider delay as a criterion for evaluation.

As a result, Wagga Wagga City Council has been left with no identified avenues of opportunity to pursue the grade separation of these crossings, neither through undertaking the works as part of the Inland Rail A2I project, nor undertaking the works as a state or federally funded capital works program in the near future.

No criteria have been defined, by any relevant party, to quantify the level of nuisance/delay to motorists which would warrant the investigation, funding and construction of a grade separated crossing for Bourke/Docker Street or Fernleigh Road. The approach by both IR and TfNSW in resolving this issue appears fragmented, non-holistic and at no point considers delays due to operations within the scope of either project. The lack of alignment of the TfNSW and IR in their understanding of the project responsibilities is putting the City of Wagga Wagga at risk.

WWCC believes that the cumulative impacts of ongoing and proposed rail operations combined with expected growth in traffic, prompted by WWCC's planned growth as outlined in the *WWCC Local Strategic Planning Statement (LSPS)*, will become a significant traffic and transport issue for the community of Wagga Wagga and WWCC. There is currently no clear solution or criteria for action to resolve this issue from any proponent or party related to IR.

Considering the troubles associated with grade separation, WWCC determined the following points as necessary, as to protect the safety and service provided to the community of Wagga Wagga.

1. WWCC questions the validity and effectiveness of an EIS process which has no avenues available for the grade-separation of road/rail crossings should they be identified as suitably impacted.
2. WWCC requires that thresholds for impact be set which would activate the process of grade-separation of road/rail crossings, supported by appropriate funding and surveillance plans and methodology.

### 5.3 Air pollution (operational impacts)

In terms of rail operations, no modelling has been undertaken as part of the A2I EIS to identify any impacts operations may have on sensitive receivers over the length of the project. Instead, a qualitative assessment was undertaken using data from similar projects in Sydney and other Inland Rail sub-projects. As with operational noise and vibration, operational air pollution has only been considered at enhancement sites and not the full length of the line. The approach taken to operational air pollution appears to be that other similar rail projects (which do not consider impacts within 50m of the rail track) in NSW have met the NSW Impact Assessment Criteria (IAC) and therefore A2I will likely meet these too. There has been no predictive quantitative assessment undertaken for operational air pollution.

A major concern with the assessment is the lack of consideration for several sensitive receivers within a 50m radius of the rail track. *Technical Paper 14 – Air Quality* states “*There is no modelling data available for assessing air quality impacts within 50m of the rail track. There is the potential for air quality impacts from existing operations at sensitive receptors within 50m of the rail track given the proximity to the emission source. The magnitude of these impacts is not known, however, based on the NSFC [North Sydney Freight Corridor] model results at 50m, impacts may be below relevant assessment criteria for receptors within 50m*”. A preliminary glance at the city of Wagga Wagga reveals several residential and commercial sensitive receivers within 50m of the existing rail track. The reports have made a generalised assumption surrounding operational air pollution and have not quantified expected pollutant dosage for these receivers.

The Technical Paper summarises with: “*Air quality impacts from train movements along the proposal in 2025 and 2040 would not exceed the relevant IAC pollutant criteria. It is noted that there are challenges in comparing air quality impacts from different projects due to a range of inputs specific to each project. Notwithstanding, the frequency and number of freight trains are key factors in addressing potential impacts on the receiving environment.*”

It is noted that out of the four studies referenced in the report only one (NSFC) considers normal train operations; the others considering only train idling. The NSFC study is based on 81, 82 and 90 class locomotives, these would be unlikely to represent the common freight locomotives of new and continuing rail operations on A2I between 2025 and 2040; GT46C-Ace and C44aci would have been the appropriate locomotives to use in a qualitative comparison. No 81, 82 or 90 class locomotives were observed in the studies undertaken for on-grade crossings (Table 1).

The following concerns have been raised regarding operational air pollution:

1. Operational air pollution has only been considered at enhancement sites when operations will occur along the full length of the railway, this leaves the EIS fundamentally incomplete.
2. The assumption cannot be made, that operational air pollution impact will be negligible within 50m of the rail track, when no qualitative or quantitative data was used

to make this assumption. Empirical studies using relevant rollingstock and motive power must be undertaken to validate impacts on sensitive receivers.

3. There has been no quantitative assessment undertaken regarding operational air pollution for the project when there are many specific and unique characteristics of rail operation for the IR and A2I corridor.
4. There is potential for increased train idling at Bomen, Uranquinty and Wagga Wagga yards, due to the increased rail traffic using the single line this has not been directly considered in the report.

## 5.4 General operational concerns

The following operational questions have not been directly addressed in any section of the EIS, but are relevant nonetheless:

1. A2I is being constructed with future provision for 3,600m trains, IR note that extension of crossing loops would be required prior to these operations commencing. However, there have been no guarantees given that if/when these extensions are undertaken and operations begin, a sound EIS will be undertaken for the full-length of the corridor, considering operational impact. WWCC fears that these extension works will be treated as discrete enhancement works and the running of 3,600m trains will be treated as an operational decision by ARTC. WWCC requests assurances and evidence, that an approval process will take place for the commencement of 3,600m trains on Inland Rail and requests information on the operational restrictions of ARTC to run trains at lengths past 1800m prior to such an approval process.
2. WWCC seeks guarantees that the assessment to run trains of lengths greater than 1800m will have scope to assess traffic and transport impacts on all intersecting roads and will have scope to grade separate road crossings if required.
3. WWCC seeks additional information on whether small incremental increases in train lengths would occur beyond 1800m. WWCC would be opposed to this action without appropriate impact assessments being undertaken.
4. WWCC disputes the suggestion that *“the proposal would not result in any change in operation of the existing rail network”* and believes that the priority allocated to Inland Rail Express and Super-freighter services would result in detrimental impacts on regional passenger train scheduling and operations.
5. WWCC notes that the EIS assessments are entirely based on a predicted 22 total train movements every 24 hours, compared to 16 currently. Should IR be successful in its initiatives the number of daily train movements could potentially increase beyond 22, making the assessments of the EIS redundant. WWCC requires that a maximum number of daily train movements be defined through Wagga Wagga.



## 5.5 Noise and vibration (construction impacts)

The *Noise and Vibration (Non-Rail) Technical Paper* summarises the impacts of construction on Wagga Wagga as follows “*Construction noise levels are predicted to exceed relevant construction NMLs [Noise Management Levels] at residential receivers at all locations and during most work stages. Sleep disturbance impacts have been predicted to occur during most night-time work stages, with up to 2,890 properties potentially experiencing sleep disturbance impacts at the Pearson Street bridge. Up to 33 properties may be highly noise affected. All activities within the Wagga urban area are predicted to affect numerous properties.*”

The EIS has identified several heritage and non-heritage sensitive receivers which will experience vibration which exceeds the allowable thresholds. The EIS suggests that mitigation measures will be required and will be determined through the creation of a Construction Noise and Vibration Management Plan (CNVMP) for relevant works. Locations of note which are affected are South Wagga Public School and several private residences. They suggest that additional studies will be required to determine the vibration sensitivity of the relevant structures.

WWCC stresses the importance of these studies and requests to be consulted regarding these assessments and plans at early stages in the process.

The following clarifications will need to be sought:

1. Studies must be undertaken to determine the sensitivity to vibration of relevant structures along the full length of the line.
2. Monitoring of these structures must take place through the construction period and beyond.
3. Dilapidation surveys must be conducted on all structures within the zone of influence of the A2I enhancement sites.

## 5.6 Flooding (construction impacts)

The impact assessments contained within *Technical Paper 11 – Hydrology, Flooding and Water Quality* reveals several flood related concerns specific to the Pearson Street Bridge enhancement site. In-depth discussions have previously occurred with IR regarding Pearson Street Bridge stormwater management and flooding, including modelling by WWCC which shows exacerbated flood impacts on adjacent properties from the proposed works (Attachments D & E), the EIS does not settle these concerns and reinforces Council’s belief that these issues have not been sufficiently identified nor addressed. Specific disparities identified in the Technical Paper are as follows:

- The basin to the South-East is described as a Council stormwater detention basin. The actual role of the basin is to reduce the level of the water table related to the reduction of salinity. It is noted that the basin does not serve a stormwater detention function as there are no stormwater inlet or outlet structures. This has been previously explained to IR.



- Peak flow in the Glenfield drain is claimed to be 62m<sup>3</sup>/s for a 1% AEP event. The culvert under the rail line adjacent to the bridge fundamentally does not have capacity in this magnitude, though IR claim that no overtopping of the rail line will occur.
- The report claims the Glenfield Drain catchment to be 600ha, though Council data shows the total catchment to be 1600ha and 1350ha to the culvert at the rail line.
- The report shows combined probability scenarios for rainfall events in the local (Pearson Street Bridge) and Glenfield Drain Catchments to be ‘unlikely’ (1:10,000 for a 1% AEP). This is likely erroneous noting the proximity of the catchments (4km).

The following issues have been raised regarding flooding:

1. The validity of the flood impact assessment cannot be trusted, when there is a contradiction between the Council provided MOFFS (2021) and the prepared flood study.
2. The peak flow in Glenfield drain of 62m<sup>3</sup>/s and the existing culvert size (capacity  $\approx$  20 62m<sup>3</sup>/s) contradict the claim that no overtopping of the rail line will occur. Both these claims cannot be true, this brings into question the validity and accuracy of the flood modelling undertaken as part of the EIS.
3. The combined probability of rainfall events in the discussed catchments cannot be considered ‘unlikely’ considering the proximity of the catchments (4km).

The EIS does not address Council’s fundamental concern regarding flooding at Pearson Street Bridge, induced by the construction works. Specifically, that the sagging of the rail-line to the East of the bridge, combined with the associated heights of the rail cess drain and flood flows at the culvert drain, will result in water flowing from Glenfield Drain culvert into the sag of the rail-line. This will, in-turn, result in flows moving from the sag into adjacent industrial lots to the North of the corridor, as indicated by Council’s modelling on the proposal (Attachments D & E). It should be noted that an in-principle resolution to this matter has been reached with IR, that being the inclusion of a second bund (embankment) on the Northern side of the rail-line to protect the industrial lots. However, Council’s perspective remains that stormwater flows will enter the rail sag from the culvert.

## 5.7 Transport impacts (construction impacts)

Impacts from construction traffic as part of Inland Rail are believed to have negligible impacts on road service levels (LOSs) in Wagga Wagga, except for the following streets:

1. Fox Street A to B
2. Edward Street B to C
3. Docker Street A to C
4. Urana Street C to E
5. Macleay Street A to D
6. Railway Street A to D
7. Lake Albert Road A to B

The analysis also shows potential significant delays on the following intersections:

1. Bourke/Urana Street (A to F)
2. Edward/Docker Street (D to F)
3. Lake Albert Road/Railway Street (C to F)
4. Edward Street/Lake Albert Road (C to D)

Duration of these impacts vary with the duration of associated construction works.

Level of service (LOS) criteria are laid out in Table 4.

The following issue has been raised:

1. The detrimental effects on local road pavement conditions must be considered and compensated for.

WWCC asks that road condition assessment and reports be prepared by a mutually approved independent party and to a mutually approved scope of works prior to construction. Any significant dilapidation of road pavements or road use, resulting from the project and its construction activities, are to be rectified by the proponent for an ongoing period of up to 10 years post construction.

*Table 4. LOS criteria as per RMS Guide to Traffic Generating Developments (2002).*

LOS	Description
<b>A</b>	Free flow in which individual drivers are virtually unaffected by the presence of others in the traffic stream. Freedom to select desired speeds and to manoeuvre within the traffic stream is extremely high, and the general level of comfort and convenience provided is excellent.
<b>B</b>	Stable flow and drivers still have reasonable freedom to select their desired speed and to manoeuvre within the traffic stream, although the general level of comfort and convenience is little less than that of the level of Service A.
<b>C</b>	Stable flow, but most drivers are restricted to some extent in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience declines noticeably at this level.
<b>D</b>	Close to the limit of stable flow but is approaching unstable flow. All drivers are severely restricted in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience is poor, and small increases in traffic flow will generally cause operational problems
<b>E</b>	Traffic volumes are at or close to capacity and there is virtually no freedom to select desired speeds or to manoeuvre within the traffic stream. Flow is unstable and minor disturbances within the traffic stream will cause a traffic-jam.
<b>F</b>	This service level is in the zone of forced flow. With it, the amount of traffic approaching the point under consideration exceeds that which can pass it. Flow break-down occurs, and queuing and delays result.

## 6. Impacts on WWCC infrastructure

WWCC requires that all assets transferred to Council must have an appropriate defect inspection undertaken in the attendance of a Council representative. All defects identified are to be recorded and rectified in accordance with an agreed method. All culvert assets are to have a CCTV inspection undertaken in accordance with WSA 05-2020 *Conduit Inspection Reporting Code of Australia* and the associated records provided to WWCC.

WWCC requires that where the integrity or function of assets, transferred to Council, is compromised during a period of up to 10 years post construction, that rectification of the asset remains the obligation and responsibility of the proponent. This expectation extends to the downstream extent of erosion protection treatments for all new culvers and all existing culverts subject to inundation.

## 7. Conclusion

An in-depth and exhaustive study of the A2I EIS, including review and gathering of additional data, has led WWCC to the conclusion that the A2I EIS is incomplete. It does not adequately assess or address the environmental impacts induced by the proposed construction and operation activities of IR. WWCC believes that this situation has been created by the fundamental approach of IR, in their study, to consider only areas of 'enhancement' within the scope of their studies as well as a number of inaccurate general assumptions.

IR have failed to consider the full-length of the existing alignment as impacted as part of IR's planned rail operations. This contrasts directly with the perspective of WWCC, that the entire IR corridor must be considered in the EIS process including cumulative impacts as this project involves the enhanced and modified use of an existing piece of infrastructure for its full length.

There appears to be little consideration to mitigate future (2025-2040) issues identified in the EIS which are not directly within the scope of Inland Rail, these 'pain-points' especially those related to on-grade crossings will occur in the future, nevertheless.

Conflicting positions and views in alignment of the Project scope between the major protagonists, ARTC/IR, DPE and TfNSW as well as limited consultation with WWCC on issues of concern has caused the use of inaccurate data, incorrect conclusions, an incomplete EIS, and a risk to the efficient functioning of the City of Wagga Wagga.

WWCC eagerly awaits the opportunities and benefits made available by IR and the A2I project but requires that the EIS be made sound and complete by addressing the concerns and issues raised throughout this document. WWCC remains open and available to assist IR in the realisation of this State Significant Infrastructure.

## Attachment A: A2I community severance impacts – Wagga Wagga road/rail interfaces

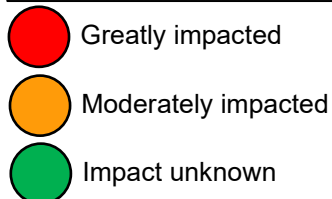
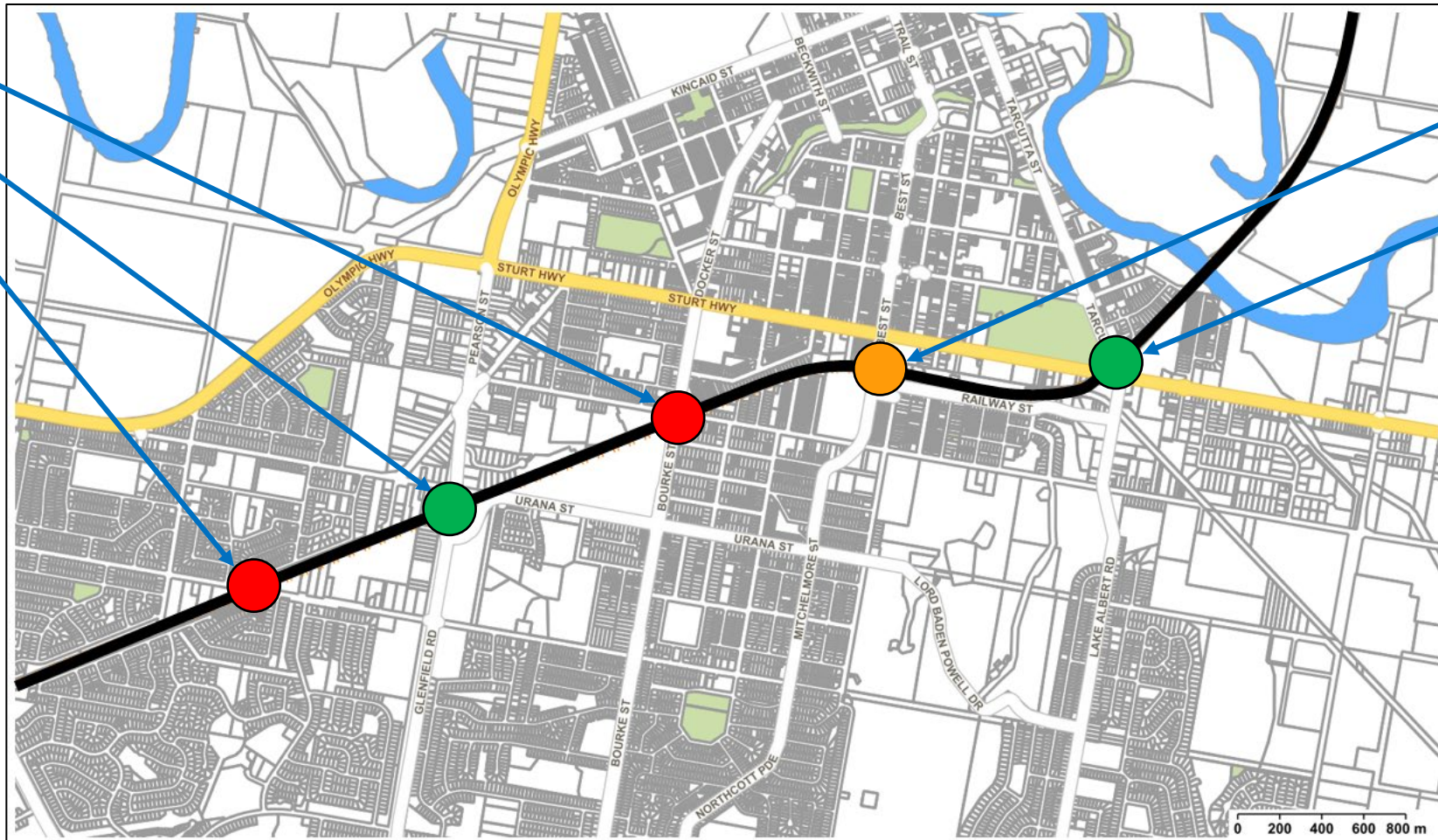
**Bourke/Docker St Crossing**  
Excessive queuing and delay:  
• 2025 = 238m  
• 2040 = 348m

**Pearson St Overpass**  
Cumulative impacts from other affected road/rail interfaces unknown.

**Fernleigh Rd Crossing**  
Excessive queuing and delay:  
• 2025 = 304m  
• 2040 = 724m

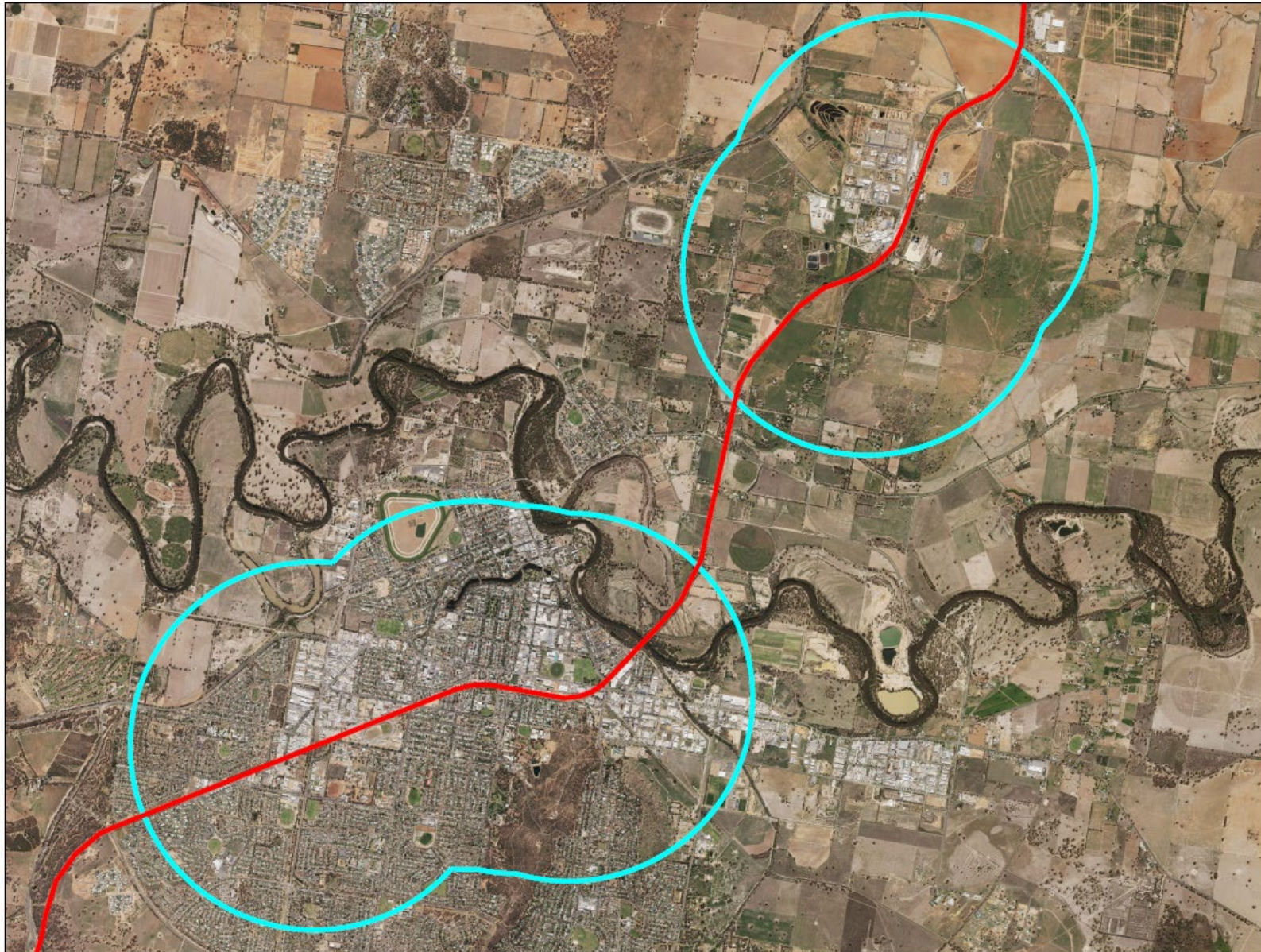
**Edmondson St Overpass**  
• Speed reduced from 50km/h to 40km/h.  
• Road grade increased from 7% to 10%.  
• Site distance reduced.

**Lake Albert Rd/Tarcutta St Underpass**  
Cumulative impacts from other affected road/rail interfaces unknown.





**Attachment B: 2km radius from A2I enhancement sites (Wagga Wagga)**



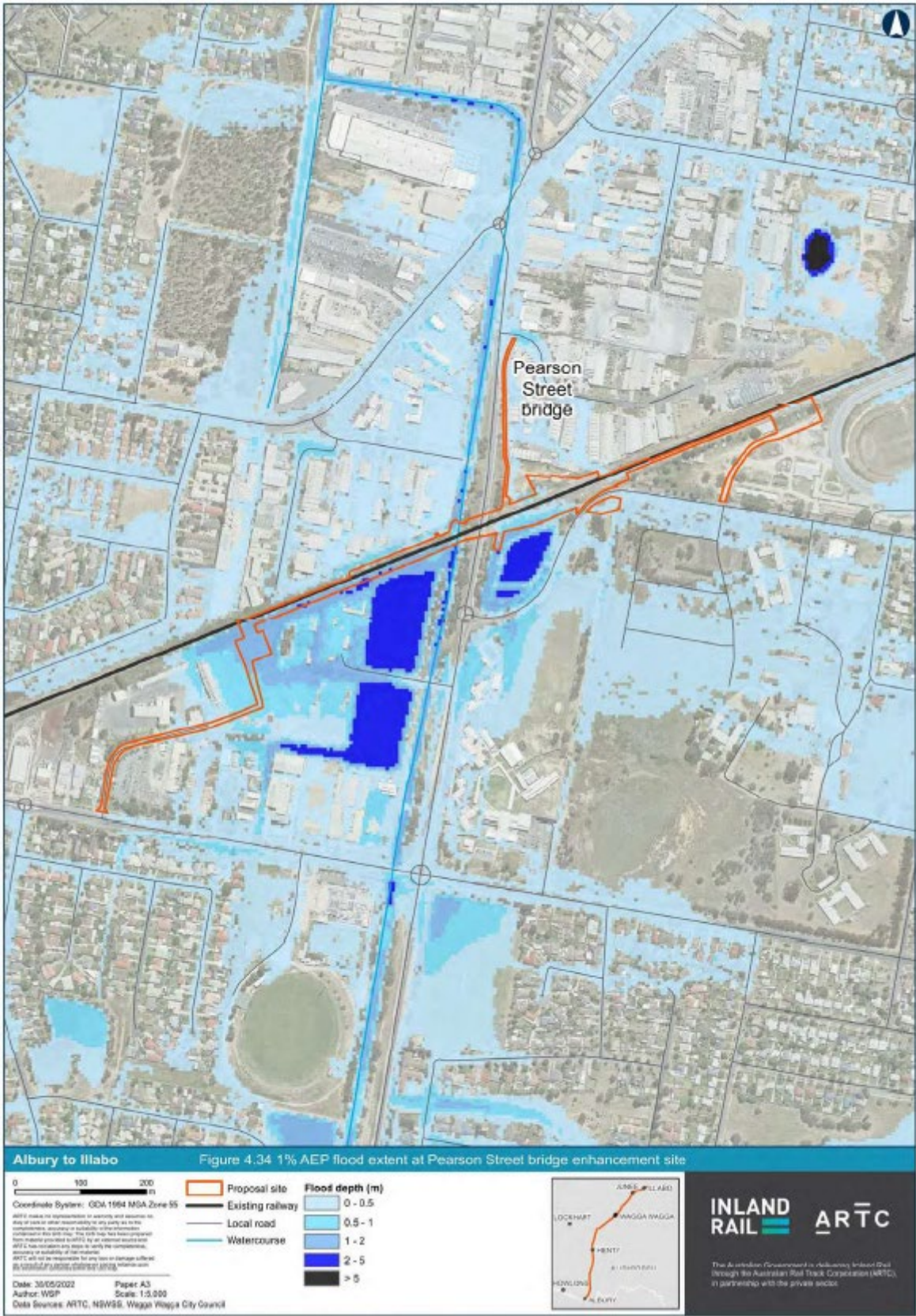


**Attachment C: 2km radius from A2I enhancement sites (Uranquinty)**





Attachment D: EIS extract - Pearson Street flood extent (1% AEP)





Attachment E: Pearson Street flood extent (1% AEP) with proposed works

