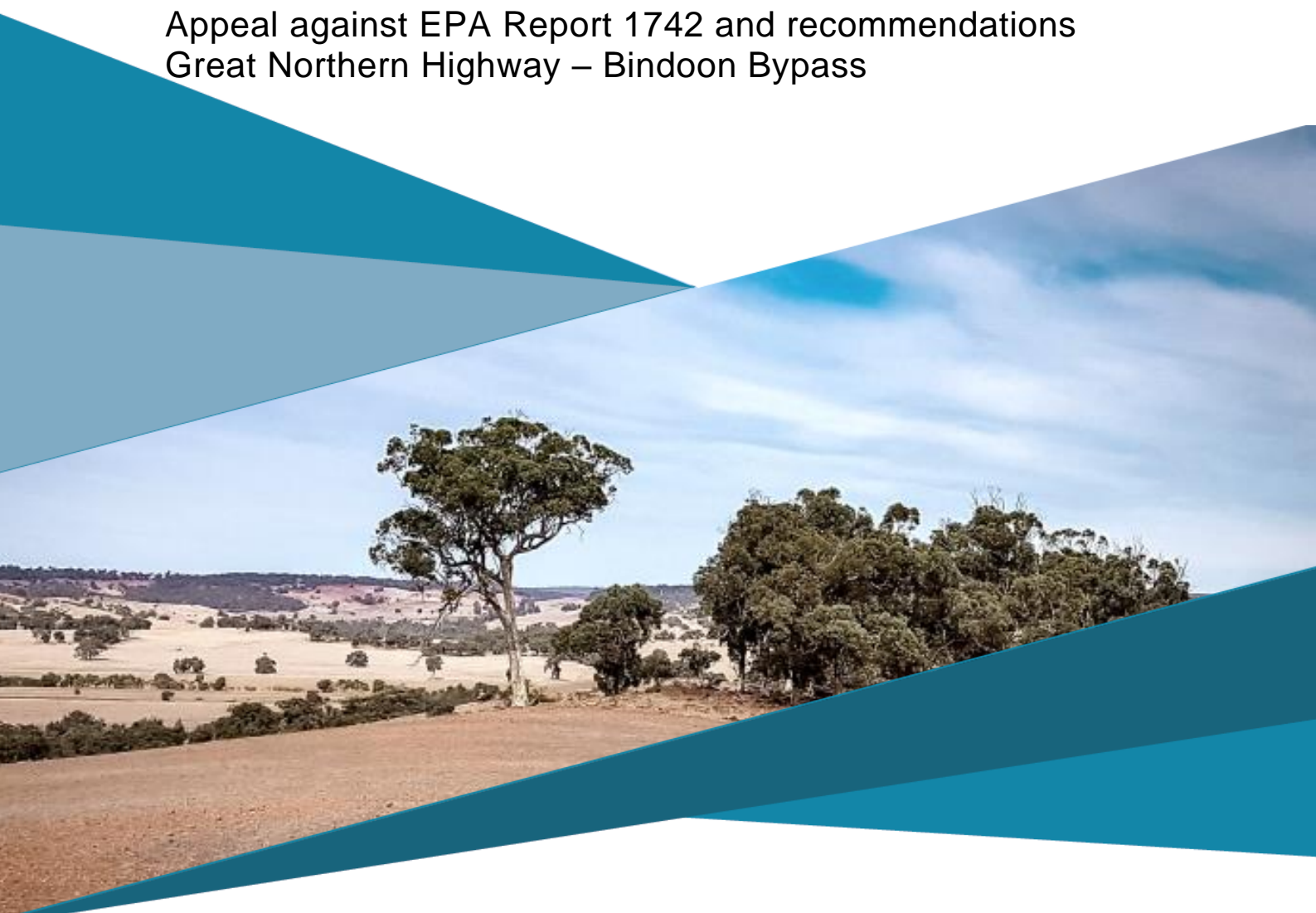




Government of **Western Australia**
Office of the **Appeals Convenor**
Environmental Protection Act 1986

Appeals Convenor's Report to the Minister for Environment

Appeal against EPA Report 1742 and recommendations
Great Northern Highway – Bindoon Bypass



Appellant	Parkwood Properties Pty Ltd
Proponent	Commissioner of Main Roads Western Australia
Authority	Environmental Protection Authority
Appeal No.	023 of 2023
Date	March 2024

Office of the Appeals Convenor

08 6364 7990 or TTY 13 36 77 (National Relay Service)

admin@appealsconvenor.wa.gov.au

www.appealsconvenor.wa.gov.au

221 St Georges Terrace

Perth WA 6000

Appeals Convenor

Ed Schuller

Investigating Officer

Liz Stewart

This report

© 2024 Office of the Appeals Convenor, Western Australia.

All rights reserved. This material may be reproduced in whole or in part provided the source is acknowledged.

Cover image: Arup Jacobs Joint Venture (2020) Bindoon Bypass Environmental Review Document Great Northern Highway and Preliminary Documentation, Arup Jacobs Joint Venture, Perth, WA.

Please contact us if you need the report in a different format.

Acknowledgement of Country

The Office of the Appeals Convenor acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community.

We pay our respects to all members of Aboriginal communities and their cultures, and to Elders past and present.

Contents

1	Executive summary	1
1.1	Decision under appeal	1
1.2	Grounds of appeal and appellant concerns	3
1.3	Key issues and conclusions	3
1.4	Recommendation to the Minister	4
2	Reasons for recommendation	5
2.1	Did the EPA have adequate regard for noise impacts?	5
2.2	Did the EPA have adequate regard for visual amenity impacts?	10
2.3	Did the EPA have adequate regard for light spill impacts?	12
3	Supporting Information	14
3.1	Relevant recommended conditions for Social surroundings (Noise)	14
3.2	EPA's consideration of the principles of the <i>Environmental Protection Act 1986</i>	15
3.3	Photos of the area surrounding PPPL landholdings, for context	17
	Appendix 1 Appeal process	19

1 Executive summary

1.1 Decision under appeal¹

The Commissioner of Main Roads Western Australia (MRWA) (the proponent) proposes to construct and operate a new 47 kilometre (km) section of the Great Northern Highway (GNH) within the Shires of Chittering and Gingin (Figure 1). The purpose is to bypass the town of Bindoon, located approximately 70 km north-east of Perth. The proposal diverts from the GNH at the Chittering roadhouse, runs west of Bindoon, and re-joins the GNH north of Calingiri Road.

The proposal consists of a four-lane dual carriageway, four-lane single carriageway, two-lane single carriageway, and a bridge across the Brockman River. It involves the construction and ongoing maintenance of a highway standard dual carriageway road, with associated bridges, culverts, road furniture, drainage, signage, lighting, and other infrastructure including side roads and road connections. It also involves the clearing and disturbance of up to 490 hectares (ha) of native vegetation within an 848.5 ha development envelope.

The proposal was assessed by the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986* (EP Act). The EPA identified four key environmental factors during its assessment: flora and vegetation, terrestrial fauna, inland waters, and social surroundings (Aboriginal heritage and noise).

The EPA recommended implementation of the proposal with conditions. The EPA's findings were published in Report 1742 on 16 June 2023.

One appeal was lodged in relation to the EPA's report and recommendations.

¹ Environmental Protection Authority (2023a) [Great Northern Highway - Bindoon Bypass. Report 1742.](#)

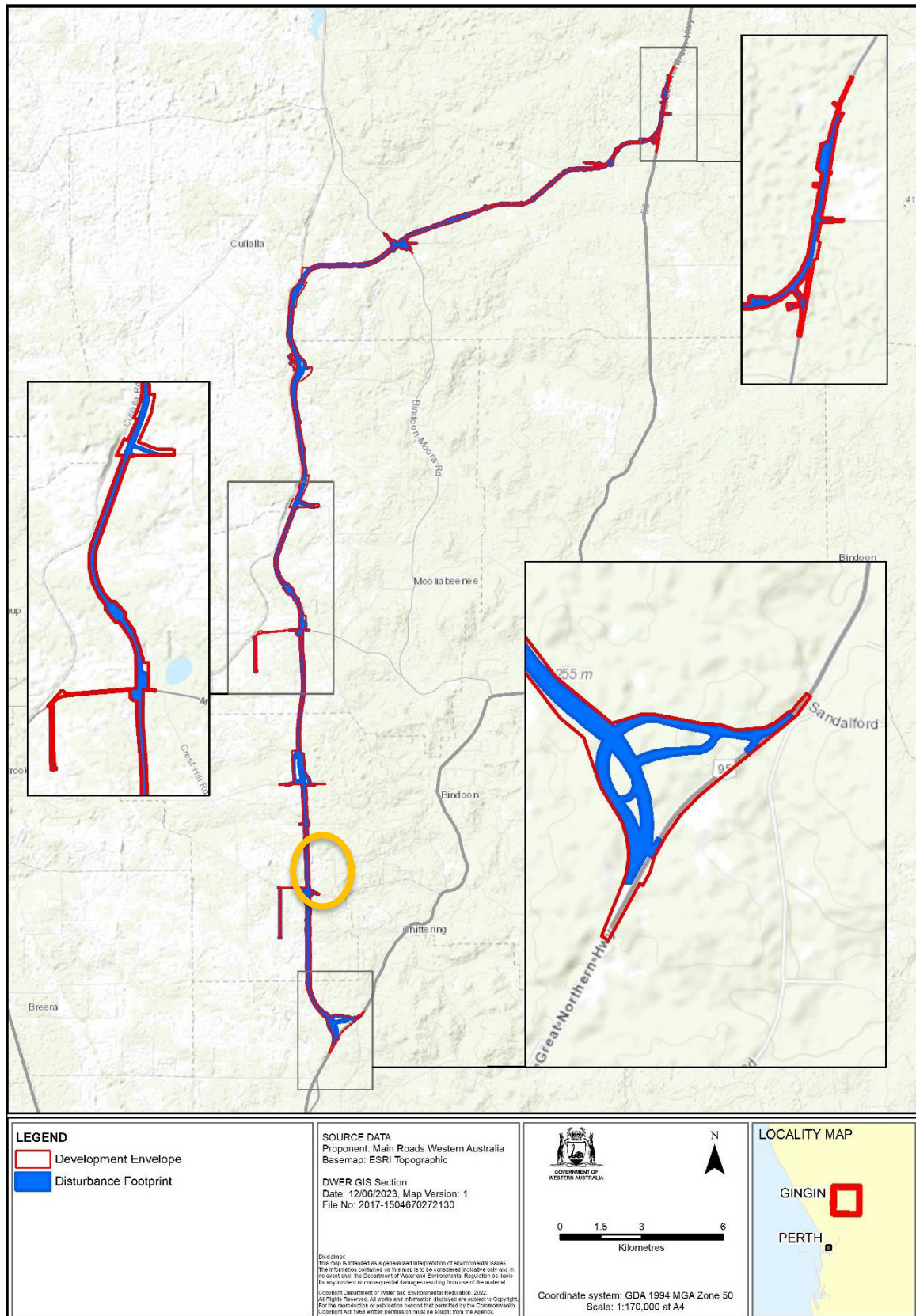


Figure 1 Project location, development envelope and disturbance footprint²; approximate location of landholding to which appeal relates indicated by gold circle.

² Environmental Protection Authority (2023a), page 13 Figure 1.

1.2 Grounds of appeal and appellant concerns

Mr Steve Pandevski, Town Planning & Development Advisor, submitted an appeal on behalf of Parkwood Properties Pty Ltd (PPPL) (appellant). PPPL is the developer of the rural residential Parkwood Springs Estate, west of the Bindoon townsite. The proposal is directly adjacent to the western perimeters of Lot 809 Woodridge Street, Bindoon and Lot 813 Tea Tree Road, Bindoon, currently owned by the developer and approved to be subdivided as part of the Parkwood Springs Estate.

The appellant submitted that noise, visual amenity and light spill from the proposal will impact on the Parkwood Springs Estate, and that the EPA's assessment and recommended conditions were not adequate to ensure the amenity of the landholding (see Table 1 for more detail).

Table 1 Grounds of appeal

Ground	Main concerns the appellant submitted
Noise	<ul style="list-style-type: none">• The EPA assessment relies upon noise assessment documentation which uses inaccurate traffic predictions, underestimating the noise implications.• Despite the conditions recommended by the EPA we are concerned that the proponent has no intention of undertaking noise mitigation measures so as to satisfy <i>State Planning Policy 5.4-Road and Rail Noise (SPP 5.4)</i> and the EP Act principles.• The recommended conditions need to be reviewed and amended so as to be clear and enforceable.
Visual amenity	<ul style="list-style-type: none">• The considerable impacts to and the alteration of the rural character, amenity and view sheds have been ignored in the visual assessment documentation.• We disagree with the EPA's conclusion that the factor of Social surroundings (visual amenity) is not a key environmental factor, it is a significant issue.
Light spill	<ul style="list-style-type: none">• The considerable impacts from vehicle head light glare as an effect from the proposal has not been considered in the context of the subdivision and its Rural Residential zoning, with reference to the Shire of Chittering's zoning classification objectives.

1.3 Key issues and conclusions

The issue for determination is (in effect) whether the EPA's assessment was appropriate and justified based on the information available at the time of the assessment, or any new information made available through the appeal investigation. If defects or shortcomings are identified, the issue is whether they require further consideration through remittal to the EPA or can be remedied through varying the EPA's recommended conditions. The Minister does not, on appeal, have the authority to decide if the proposal should not be implemented. Rather, this along with broader economic and social considerations, are matters for the decision makers under section 45 of the EP Act.

In this context, we note the role of the EPA in assessing a referred proposal is advisory. The EPA is required to prepare an assessment report, which identifies key environmental factors and recommends whether the proposal referred to it may be implemented. In making its recommendation, the EPA is required to consider the environmental factors relevant to the referred proposal and to the impact of the proposal on the environment.

Broadly, the appellant contends that the EPA did not adequately consider (in its assessment and recommended conditions) noise, visual amenity or light spill impacts to the approved subdivision, Parkwood Springs Estate. We summarise our appeal investigation conclusions below. Section 2 details our reasoning.

On noise we find that:

- the acoustic assessment was adequate, and the recommended conditions proposed by the EPA have built in contingencies in the event of any deviancy from expected outcomes
- the recommended conditions as proposed by the EPA are consistent with the objectives of SPP 5.4 and the principles of the EP Act
- the recommended conditions as proposed by the EPA are robust and clear.

On visual amenity we find that:

- the Landscape, Character and Visual Impact Assessment provided adequate and appropriate information for the EPA to undertake its assessment for visual amenity
- the EPA assessed impacts to visual amenity appropriately.

On light spill we find that:

- that the Lighting – concept design assessment provided adequate information for EPA to undertake its assessment for visual amenity (light spill)
- the EPA assessed impacts to visual amenity (light spill) appropriately.

We consider that the EPA’s assessment against the environmental factor of Social surroundings³, as it relates to this appeal, was adequate.

1.4 Recommendation to the Minister

We recommend that the appeal should be dismissed.

³ Environmental Protection Authority (2023b) [Environmental Factor Guideline - Social Surroundings](#)

2 Reasons for recommendation

2.1 Did the EPA have adequate regard for noise impacts?

The appellant submitted that EPA Report 1742 relies upon insufficient noise modelling, that the traffic volume numbers are inaccurate and underestimate the noise implications.

The appellant also contends that:

- the EPA's recommended conditions are not clear in the terms of what, when and who
- the proponent has no intention of undertaking noise mitigation
- noise mitigation should be the responsibility of the proponent, otherwise it contravenes the objectives of SPP 5.4 and the object and principles of the EP Act.

We find that the EPA's consideration of noise impacts was consistent with current guidance and considered appropriate information. We explain our reasoning below.

SPP 5.4 and the principles of the EP Act

The objectives of SPP 5.4⁴ are to:

- protect the community from unreasonable levels of transport noise
- protect strategic and other significant freight transport corridors from incompatible urban encroachment
- ensure transport infrastructure and land-use can mutually exist within urban corridors
- ensure that noise impacts are addressed as early as possible in the planning process
- encourage best practice noise mitigation design and construction standards.

SPP 5.4 applies to the preparation and assessment of planning instruments, including region and local planning schemes; planning strategies, structure plans; subdivision and development proposals in Western Australia, where there is proposed:

- (a) noise-sensitive land-use within the policy's trigger distance of a transport corridor
- (b) new or major upgrades of roads

There are five principles of the EP Act, as detailed in section 4A of the EP Act, (also refer to summary in Section 3). The appellant submits that the principles that should be applied in this assessment are:

- the precautionary principle
- the principle of intergenerational equity
- principles relating to improved valuation and incentive mechanisms
 - environmental factors should be included in the valuation of assets and services
 - the polluter pays principle.

The EPA's environmental objective for its Social surrounding factor

The EPA's *Environmental Factor Guideline: Social surroundings* states that the objective of the factor 'Social surroundings' is 'To protect social surroundings from significant harm'. This means that the aesthetic, cultural, economic and other social surroundings should not be significantly affected by a proposal's impacts on the physical (or biological) environment⁵.

⁴ Western Australian Planning Commission (2019a), [State Planning Policy 5.4 Road and Rail Transport Noise](#). Prepared under Part Three of the Planning and Development Act 2005, page 4

⁵ Environmental Protection Authority (2023b), page 1

Noise modelling adequately assessed potential impacts from the referred proposal

A noise assessment of the proposal was conducted by Arup Jacobs Joint Venture in 2018⁶, with regard for SPP 5.4⁷. The assessment included investigation of predicted noise levels along the proposed alignment and identified noise-sensitive buildings that exceed the noise targets set in SPP 5.4⁸.

It is understood that the traffic noise models have been constructed in SoundPLAN Version 8.0, an environmental noise modelling software program, with the industry recognised UK Calculation of Road Traffic Noise (CoRTN) methodology used for road traffic noise prediction. Traffic noise measurements along the existing GNH near Bindoon were conducted and used to set appropriate calibration and conversion factors. This is in line with the recommendations of SPP 5.4 *Road and Rail Noise Guidelines*⁹.

In its appeal response,¹⁰ the EPA advised that:

During the assessment, the EPA received specialist technical advice from the Department of Water and Environmental Regulation (DWER) Noise Management Branch (NMB) on the adequacy of the proponent's acoustic assessment report. The NMB advised that the methodology of the ambient noise measurement and the selection of the monitoring locations was reasonable, and the measured and modelled results to be reliable. Based on the available information and advice from DWER, the EPA was of the view that it had sufficient information to assess the potential impacts of the proposal and determine whether the EPA objective can be met.

The EPA also advised that, in addition to using a traffic noise model to predict the noise levels with respect to SPP 5.4:

the proponent will also conduct further noise assessment once the final road design is available in accordance with SPP5.4 and its guidelines, in order to further demonstrate that the final design meets SPP5.4 noise targets.

And also:

The EPA acknowledges that there may be some lack of certainty about the proponent's projections of traffic numbers, and that actual traffic volumes in the future may differ (and therefore traffic noise emissions) from those predicted for a range of different reasons. For this reason, the environmental management plan (required by condition B5-2) requires the proponent to implement contingency measures if approved management targets are not met. The proponent must report on the contingency measures required to be undertaken.

For its part, MRWA advised that¹¹:

The forecast traffic volumes took into consideration anticipated population growth in the region and freight transportation demand between Perth and northern WA.

The transport model will continue to be refined in order to determine road design requirements, including noise mitigation, once the Proposal is implemented.

⁶ Arup Jacobs Joint Venture (2018) *Great Northern Highway, Muchea to Wubin Upgrade - Stage 2, Main Roads Western Australia, Bindoon Bypass Noise Assessment*. Appendix I of the environmental review document.

⁷ Western Australian Planning Commission (2019a), op.cit.,

⁸ Western Australian Planning Commission (2019a), page 5

⁹ Western Australian Planning Commission (2019b) [State Planning Policy 5.4 Road and Rail Noise Guidelines](#)

¹⁰ Environmental Protection Authority (2023c) response to Appeal 023/23 (08/09/23)

¹¹ Main Roads Western Australia (2023) response to Appeal 023/23 (15/08/23).

It would not be in the interest of the Proposal to underestimate traffic volumes, as increased freight efficiency is one of the Proposal's objectives.

We consider:

- that the noise assessment and modelling aligns with what is required by SPP 5.4 and has considered forecast population growth and freight demands
- the EPA adequately assessed the proposal against its *Environmental Factor Guideline: Social Surroundings*, specifically in that it has considered emissions of noise in the context of relevant criteria or standards and any risk with predicted impacts¹²

and conclude that noise modelling adequately assessed potential noise impacts from the referred proposal. We consider how the EPA has considered risk in the next section.

The EPA recommended appropriate conditions to mitigate noise impacts

The appellant also contends that the EPA's recommended conditions are not clear or enforceable, in responsibilities and actions required.

The appellant considered that the wording of the conditions recommended by the EPA need to be reviewed and amended so as to be enforceable. The enforceability of the conditions is a matter for DWER to consider. However, we note that as stated in s47(1) of the EP Act, if the proponent does not implement the proposal in accordance with its implementation conditions, the proponent commits an offence.

Objectives of SPP 5.4 and principles of the EP Act considered in recommended conditions

The EPA outlined how they have applied the principles of the EP Act in Appendix C of EPA Report 1742. We have reviewed this, as summarised in Section 3. We confirm that the EPA did apply the principles in its assessment when considering how the mitigation hierarchy has been addressed and by recommending conditions. These conditions require the proponent to minimise operational noise impacts on noise sensitive receptors and to prepare an environmental management plan to demonstrate how this will be achieved.

In its response to the appeal, the EPA advised that it:

expects the proponent to use best practice noise management to minimise impacts and meet the relevant noise targets identified in SPP 5.4

...the EPA has recommended a reasonable approach that ensures that the proponent, through the recommended conditions, is responsible for implementing noise mitigation measures for transport noise and that it consults with the Parkwood estates developers during the development of the noise management plan, prior to construction. Through this approach it is expected that the proponent and developers share the latest information about their respective projects so that the proposal can be designed and implemented to mitigate potential noise impacts on future residential areas as much as possible

...the EPA consulted with Department of Planning, Lands and Heritage (as the implementing agency of SPP 5.4) on the draft implementation conditions to ensure that the approach was consistent with the intent of SPP5.4 in this circumstance.

The objectives of SPP 5.4 have been considered by implementing measures to ensure that both land uses can mutually exist and the risk of land use conflicts are reduced.

¹² Environmental Protection Authority (2023b), page 2

Local Planning Scheme zoning and approved subdivision

We have attached relevant recommended conditions for Social surroundings (Noise amenity) in Section 3. We note that the EPA's objective at recommended condition B5-1, is to 'minimise operational noise impacts on existing and approved noise sensitive receptors, as far as practicable'. Following, at recommended condition C4-3, potentially affected residences and proponents of **approved subdivisions**/ future dwellings in **approved subdivisions** adjacent to the proposal are provided for.

We consider that the wording 'approved subdivision' (as per term used in the EPA recommended conditions) acknowledges that the subdivision exists and note that it has been acknowledged throughout the assessment phase, by the EPA and by the proponent.

SPP 5.4 discusses the role of planning instruments (such as local planning schemes) in addressing the impacts of noise, including the identification of appropriate compatible land use zoning that is commensurate with the function of the transport corridor. We also note section 4.8.2 of Shire of Chittering's Local Planning Scheme 6¹³ which prescribes building setbacks to road infrastructure and that the Shire of Chittering Local Planning Strategy¹⁴ requires planning proposals for land adjoining highways or significant viewing routes to provide information and measures to address noise and visual impacts, such as through siting and vegetation screening.

We note that there are two conditions to the approved subdivision at Parkwood Springs Estate which requires Notifications on all of the Lot Titles regarding proximity of the bypass and that they may be affected by transport noise.

Furthermore, we agree with the conclusion of the noise assessment report which says:

It is recommended that the alignment of the proposed Bindoon Bypass be considered when selecting locations for dwellings in the development.

PPPL could take some steps to mitigate noise consistent with the discussion above. We note, however, the EPA Report and recommended conditions can only deal with the proposal and what is the responsibilities of the proponent. Any requirements the appellant may have as part of its compliance with SPP 5.4 are outside consideration of this appeal.

Noise mitigation is required by the proponent

In its appeal response the EPA advised that:

The proponent has proposed noise mitigation measures consistent with SPP5.4, including the use of low-noise materials for sections of road near noise sensitive premises, and modifications and improvements to existing buildings to reduce indoor noise (e.g. double glazing, installation of air conditioning units to allow windows to be kept closed). The EPA has also recommended through its recommended conditions that the proponent continue to consult with the nearby residents and proponents of approved subdivision proposals in relation to the specific mitigation measures to apply.

We note that the EPA recommended conditions are not prescriptive about what mitigation measures are used to meet the noise targets in SPP 5.4, just that the targets must be met, providing for flexibility. The conditions specifically require the proponent include in its Environmental Management Plan (EMP) noise level contour maps and demonstrate how the targets will be met, including through the possible use of noise walls.

¹³ Department of Planning, Lands and Heritage (as revised) [Shire of Chittering Local Planning Scheme No.6: District Zoning Scheme](#).

¹⁴ Western Australian Planning Commission (2019c) [Shire of Chittering Local Planning Strategy](#), page 12.

MRWA have advised that:

Parkwood Properties Pty Ltd assertion that Main Roads intends to delegate all noise management responsibilities to the developer is incorrect. Main Roads has committed to developing and implementing a noise management plan in accordance with the provisions of SPP 5.4 and the EPA has recommended conditions to this effect.

... As noted in the Response to Submissions document¹⁵ (Section 2.4, Table 2-1, item 17):

Main Roads intends to prepare a NMP prior to commencement of construction. This Plan will take into consideration mitigation of noise impacts for all residences that have been identified by the modelling as above the noise target, including the Parkwood Springs Estate

...developing a detailed NMP for the PPPL subdivision is not possible at this point in time. The larger lots abutting the Proposal have yet to be subdivided into the proposed 1 ha lots and therefore there are no residential dwellings in the area. Any noise assessment needs to understand where dwellings are located in order to calculate potential outdoor noise levels.

...it [MRWA] acknowledges the Parkwood Springs Estate Plan was approved by the Shire of Chittering in 2007 and that a subsequent subdivision plan was lodged in October 2019, after consultation commenced on the Bindoon Bypass corridor selection process. It should be noted that the Bindoon Bypass corridor was endorsed by the Minister for Transport in January 2017.

For the purposes of noise mitigation relevant to the proposal the EPA considers that it is the proponent's responsibility to develop and implement noise mitigation measures and to that effect has required an EMP to be developed and implemented to do that, as per condition B5-2. We consider this condition to be adequate.

Contingencies required by conditions address uncertainties in modelling

In its appeal response, the EPA advised that:

In its assessment the EPA concluded that residual impacts to properties from operational noise should be subject to recommended conditions to require the proponent to minimise operational noise and prepare a noise management plan to ensure the environmental outcome with respect to nearby residents and future residential developments is likely to be consistent with the EPA objective for this factor.

The EPA also advised that:

the EPA recommended condition B5-2 requires the proponent to minimise operational noise on noise sensitive receptors, through the preparation of a Noise Management Plan which meets the requirements of condition C4-3 and is to be submitted and approved prior to the commencement of any ground disturbing activities.

Specifically, conditions B5-2 and C4-3 requires the proponent to:

- describe the relevant mitigation measures to meet the outdoor noise targets in the SPP5.4 and indoor noise targets for potentially affected dwellings;
- prepare a noise level contour map based on the final road design and demonstrate that design and construction of mitigation measures will meet the objective of minimising operational noise on noise sensitive receptors and is consistent with SPP5.4;

¹⁵ Main Roads Western Australia (2022) [Bindoon Bypass Environmental Review Document Response to Submissions](#).

- provide evidence of reasonable steps taken with respect to consultation with potentially affected residences and proponents of approved subdivisions;
- include the responsibilities for implementing noise mitigation measures (including noise walls) for future dwellings in approved subdivisions adjacent to the proposal.

In the event the proposal receives environmental approval and condition B5-2 is included in the Ministerial statement, the proponent must implement the proposal to ensure the environmental objective, which is to minimise operational noise impacts on existing and approved noise sensitive receptors, is met. To achieve this, the proponent must not undertake ground disturbing activities until the CEO has confirmed in writing that the environmental management plan required by condition B5-2 meets the requirements of that condition and condition C4-3. The environmental management plan must be approved by the CEO (or approved delegate) before it can be implemented.

Ultimately, the proponent must implement the proposal consistent with conditions in a Ministerial statement. The EPA considers the recommended conditions are reasonable, feasible and able to be implemented.

For its part, MRWA advised:

Main Roads considers the proposed conditions meet the 'What, when and who test'. As required by the proposed conditions (B5-2, C1-1 and C4-3), Main Roads must prepare, and have approved by the CEO, an EMP to address potential impacts related to noise before any ground disturbing activities can commence. This EMP will set out in detail the actions to be undertaken, responsibilities for these actions and timeframes for achieving the actions.

We consider that the EPA has built in adequate contingency in their implementation conditions requiring the proponent to undertake further noise monitoring once the proposal is operational to verify the predictions of the modelling and demonstrate it is meeting the SPP 5.4 noise targets.

Having regard for the information provided during the appeals investigation, including the referral documentation, and information provided by the appellant, the proponent and the EPA, we consider that the EPA has:

- had appropriate regard for the provisions of SPP 5.4 relevant to a development of a major road in the vicinity of existing noise-sensitive land-uses, in its assessment of traffic noise impacts against the factor 'Social Surroundings', specifically in that it has considered emissions of noise in the context of relevant criteria or standards, risk with predicted impacts and whether proposed management or mitigation of impacts is technically and practically feasible
- recommended clear, reasonable and appropriate implementation conditions relevant to noise mitigation strategies, consistent with the relevant provisions of SPP 5.4 and in line with the EP Act principles (particularly relevant is the polluter pays principle)
- recommended conditions which specify responsibilities, associated timeframes and controlling actions to mitigate noise.

2.2 Did the EPA have adequate regard for visual amenity impacts?

The appellant submitted that:

- within this rural locality and setting the proposal will be visually obtrusive, dominant, inconsistent and therefore create a detrimental visual impact.
- details such as road elevations or infrastructure required to implement the road have not been mentioned within the visual assessment on which EPA's Report relies upon

- The proposal would have a significant impact on social surroundings (visual amenity), the proposed road will not be able to be effectively screened by vegetation as there appears to be insufficient and unsuitable verge area.

We consider that the EPA's consideration of visual amenity impacts was adequate. We explain our reasoning below.

The EPA assessed potential impacts from the referred proposal

A Landscape Character and Visual Impact Assessment (LCVIA) was conducted by Arup Jacobs Joint Venture in 2018¹⁶. The LCVIA considered the potential impacts (adverse and beneficial) that are likely to occur because of the project and identifies mitigation measures and design recommendations to avoid, minimise or improve potential landscape and visual impacts where possible. The visual impacts of the proposal were considered by the proponent as part of the Environmental Review Document. We have also attached photos of the bypass location in Section 3 for reference.

A list of documents, guidelines and policy frameworks have been considered in the preparation of the LCVIA and in defining an appropriate and transparent methodology for the assessment. The LCVIA considers all effects of change, including the physical extent of change and change to the qualities of the view or landscape, that may arise from the project in the landscape and visual amenity. Viewpoint 4 within the LCVIA assesses the views west from Windemere Way, within Parkwood Springs Estate. The LCVIA stated that sensitive view mitigation, such as visual screening, is needed.

The EPA identified social surroundings (visual amenity) as a preliminary key environmental factor when it set the level of assessment, but not a key environmental factor at the conclusion of its assessment, as outlined in Appendix D of EPA Report 1742.

In its appeal response, the EPA advised that:

the visual amenity of the surrounding landscape does not support significant aesthetic values, such as unique natural features or high scenic quality.

...the EPA had regard to the proponent's proposed mitigation strategies, including proposed planting and landscaping to reduce potential impacts to visual amenity.

The EPA concludes that the mitigation proposed (appropriate plantings and landscaping) is likely to reduce the potential impact to a level whereby the proposal would be unlikely to have a significant impact on visual amenity of the local area.

For its part, MRWA advised that:

Visual impacts on sensitive receptors within the PPPL subdivision are considered to be readily manageable as a minor impact during construction and operation. The [visual impact] assessment noted that the road reserve adjacent to the future subdivision would need sensitive view mitigation which may include visual screening using landscaping or screen/noise walls. Main Roads has committed to undertake this visual screening as advanced plantings. The EPA's assessment supports this.

MRWA advises that Bindoon Bypass will be constructed in stages, and additional time will be provided for plantings to become more established if needed when considering the ultimate interchange design at Teatree Road. Some cut and fill may be required but no sections of the road will be 11 metres above the existing ground level.

¹⁶ Arup (2018b) [Bindoon Bypass Project – Landscape Character and Visual Impact Assessment](#). Appendix J of the Environmental Review Document.

Furthermore, MRWA has advised that:

Specific details of any bunding or screening that may be required will be determined during the detailed design phase. Consultation will be undertaken with relevant land owners in relation to these elements of the proposal as appropriate.

We consider:

- that the LCVIA provided adequate and appropriate information for EPA to undertake its assessment for visual amenity
- the EPA assessed impacts to visual amenity appropriately
- the EPA adequately assessed the proposal against its *Environmental Factor Guideline: Social Surroundings*, specifically in that it has considered landscape and visual impact assessment studies based on recognised methodology and whether proposed management or mitigation (visual screening) of impacts to aesthetics or social surrounding is technically and practically feasible

and conclude that we agree with EPA's assessment of Social surroundings (visual amenity) and their conclusion that the proposal, with consideration of the management measures proposed, is unlikely to be inconsistent with the EPA objective for Social surroundings.

2.3 Did the EPA have adequate regard for light spill impacts?

The appellant submitted that:

- the impacts of glare from vehicle headlights from night-time traffic will impact upon current and future residences within the landholding of PPPL
- shrouding devices could be fitted to street lights to minimise overspill of lux or lumens
- this is not a residential or built-up area; lighting of this nature is foreign and impactful on this type of environment and landscape.

We consider that there has been adequate regard to impacts from light spill. We explain our reasoning below.

The EPA assessed potential impacts from the referred proposal

A lighting – concept design (including light spill and headlight glare) assessment of the proposal was conducted by Arup in 2018¹⁷. The concept design notes:

- the lighting has been designed generally in accordance with AS/NZS 1158 and in compliance with the MRWA standards, and is considered for the ultimate GNH alignment
- headlight glare impact on residences along the proposed route was found to be low or negligible
- initial calculations indicate that all residences along the proposed alignment will be located outside the 1 lux maximum vertical illuminance level (from all street lighting).

The light spill impacts of the proposal were considered by the proponent as part of the Environmental Review Document, using the lighting – concept design assessment as a basis. No lighting is planned on the main line of the proposal. Lighting will be installed at intersections, with the type of lighting based on the expected traffic volumes in accordance with the requirements of AS/NZS 1158:2005 (lighting for roads and public spaces) and Main Roads standards. To reduce light spill from intersection light the proponent states in its Environmental Review Document that mitigation measures will be applied including

¹⁷ Arup (2018c) [Technical Note – GNH CN12 Bindoon – Lighting – concept design](#). Appendix K of the Environmental Review Document.

measures to minimise light glare and spill, using best practice lighting and undertaking planting around the outside of curves, including intersections, near those residences that may be impacted.

The EPA identified social surroundings (visual amenity (light spill)) as a preliminary key environmental factor when it set the level of assessment, but not a key environmental factor at the conclusion of its assessment, as outlined in Appendix D of EPA Report 1742.

The EPA acknowledges that some impacts may occur from vehicle glare, particularly where vehicles turn off the Bindoon Bypass and onto local roads. However, they conclude that the mitigation proposed (best practice lighting, appropriate plantings) is likely to reduce the potential impact to a level whereby the proposal would be unlikely to have a significant impact on visual and light amenity of the residences and the local area.

For its part, MRWA advised that:

Headlight glare from the proposed highway is unlikely to cause significant issues to future dwellings within the subdivision. Vehicles travelling along the Proposal will be parallel to the property boundaries and hence headlights will not be directed into the properties. Potential headlight glare from the intersection of Teatree Road and the Proposal can be readily managed through vegetation placement. Headlight glare from within the subdivision is likely to be more of a nuisance than the glare from traffic on the future Great Northern Highway.

We note that the Shire of Chittering Local Planning Strategy¹⁸ requires planning proposals for land adjoining highways or significant viewing routes to provide information and measures to address noise and visual impacts, such as through siting and vegetation screening.

We consider that:

- that the Lighting – concept design assessment provided adequate information for EPA to undertake its assessment for visual amenity-light spill
- the EPA assessed impacts to visual amenity-light spill appropriately
- the EPA adequately assessed the proposal against its *Environmental Factor Guideline: Social Surroundings*, specifically in that it has considered light spill visual impact assessment studies based on recognised methodology and whether proposed management or mitigation of impacts to aesthetics or social surrounding is technically and practically feasible

and conclude that we agree with EPA's assessment of Social surrounding (visual amenity-light spill) and their conclusion that the proposal, with consideration of the management measures proposed, is unlikely to be inconsistent with the EPA objective for Social surroundings.

¹⁸ Western Australian Planning Commission (2019c) [Shire of Chittering Local Planning Strategy](#), page 12.

3 Supporting Information

3.1 Relevant recommended conditions for Social surroundings (Noise)

B5 Social Surroundings (Noise Amenity)

B5-1 The proponent shall implement the proposal to meet the following environmental objective:

- (1) minimise operational noise impacts on existing and approved noise sensitive receptors, as far as practicable.

B5-2 The proponent must prepare an environmental management plan that satisfies the requirements of condition C4 and demonstrates how the social surroundings environmental objective in condition B5-1 will be achieved, and submit the plan to the CEO.

C4-1 The environmental management plans required under condition B4-2, condition B5-2 and condition B6-3 must contain provisions which enable the achievement of the relevant objectives of those conditions and substantiation of whether the objectives are reasonably likely to be met, and must include:

- (1) management actions;
- (2) management targets;
- (3) contingency measures if management targets are not met; and
- (4) reporting requirements.

C4-3 The environmental management plan required under condition B5-2 is:

- (1) required to describe the relevant mitigation measures to meet the outdoor noise targets in the State Planning Policy 5.4 Road and Rail Noise and indoor noise targets for potentially affected dwellings;
- (2) to provide the location, height and timing of construction of the noise walls;
- (3) required to include a noise level contour map based on the final road design and demonstrate that design and construction of mitigation measures will meet the objective in conditions B5-1 and C4-3(1) and is consistent with the Road and Rail Noise Guidelines;
- (4) required to include evidence of reasonable steps for consultation with potentially affected residences and proponents of approved subdivisions;
- (5) required to include the responsibilities for implementing noise mitigation measures (including noise walls) for future dwellings in approved subdivisions adjacent to the proposal; and
- (6) required to specify the timing for the review of the approved environmental management plan, prior to commencing construction activities of subsequent stages of the proposal.

C4-4 Without limiting condition C2-1, the failure to achieve an environmental objective, or implement a management action, regardless of whether contingency measures have been or are being implemented, represents a non-compliance with these conditions.

3.2 EPA’s consideration of the principles of the *Environmental Protection Act 1986*

Table 1: Consideration of principles of the *Environmental Protection Act 1986*¹⁹

EP Act Principles	Consideration
<p>1. The precautionary principle</p> <p><i>Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.</i></p> <p><i>In application of this precautionary principle, decisions should be guided by –</i></p> <p><i>(a) careful evaluation to avoid, where practicable, serious, or irreversible damage to the environment; and</i></p> <p><i>(b) an assessment of the risk-weighted consequences of various options</i></p>	<p>The assessment of these impacts is provided in their report, with focus on the mitigation hierarchy and evaluating the impacts in a risk based manner.</p> <p>From its assessment of this proposal the EPA has concluded that there is no threat of serious or irreversible harm.</p>
<p>2. The principle of intergenerational equity</p> <p><i>The present generation should ensure that the health, diversity, and productivity of the environment is maintained and enhanced for the benefit of future generations.</i></p>	<p>The EPA has considered measures to avoid and minimise impacts to the key environmental factors during its assessment and has recommended conditions to ensure that appropriate measures are implemented to ensure the environment will be maintained for the benefit of future generations.</p>
<p>3. The principles of the conservation of biological diversity and ecological integrity</p> <p><i>Conservation of biological diversity and ecological integrity should be a fundamental consideration.</i></p>	<p>The EPA has considered the principle of conservation of biological diversity and ecological integrity in its assessment and concluded that given the nature of the impacts that the proposed offsets are likely to counter-balance the impacts of the loss of biological diversity and ecological integrity.</p>
<p>4. Principles relating to improved valuation, pricing, and incentive mechanisms</p> <p><i>(1) Environmental factors should be included in the valuation of assets and services.</i></p> <p><i>(2) The polluter pays principle — those who generate pollution and waste should bear the cost of containment, avoidance, or abatement.</i></p> <p><i>(3) The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any wastes.</i></p>	<p>In considering this principle, the EPA notes that the proponent will bear the costs relating to implementing the proposal to achieve environmental outcomes, and management and monitoring of environmental impacts during construction, operation, and decommissioning of the proposal.</p>

¹⁹ Environmental Protection Authority (2023a), Appendix C

<p><i>(4) Environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems.</i></p>	
<p>5. The principle of waste minimisation</p> <p><i>All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.</i></p>	<p>The EPA notes the proponent's commitment to implementing developed concepts and practices for the diversion of waste from landfill.</p>

3.3 Photos of the area surrounding PPPL landholdings, for context

Photos of the PPPL landholdings in reference to the proposed Bindoon Bypass alignment.



Figure 1: Looking over PPPL landholdings from Woodbridge Street to the west with Bindoon Bypass corridor adjacent to the treeline in the far distance



Figure 2: Looking north from Teatree Road over PPPL landholdings, Bindoon Bypass corridor adjacent to the furthest treeline in the top left



Figure 3: View from Tea tree Road, looking north-Bindoon Bypass corridor on the left portion, PPPL landholdings to the right

Appendix 1 Appeal process

The Minister assesses the merits of a decision

Environmental appeals follow a merits-based process. This means the Minister can consider all the relevant facts, legislation and policy aspects of the decision and decide whether it was correct and preferable.

For appeals in relation to an EPA report and recommendations, the Appeals Convenor normally considers the environmental merits of the assessment by the EPA, based on objectives as set by the EPA as well as other environmental factors. The appeals process considers environmental significance, additional information not considered by the EPA, technical errors and attainment of policy objectives.

The Minister has three options in dealing with appeals against a report of the EPA:

- dismiss the appeals (section 101(1)(a))
- allow the appeals by remitting the proposal to the EPA for further consideration (section 101(1)(d)(i))
- allow the appeals by varying the EPA's recommendations by changing the implementation conditions (section 101(1)(d)(ii)).

It is not considered open to the Minister, on appeal, to refuse to approve the proposal, or to alter the proposal by unilaterally relocating it to a different place.

The Minister's decision under section 101(1) is final and without appeal.

We report to the Minister, as does the decision-making authority

To decide an appeal's outcome, the Minister for Environment must have a report from both:

- the Appeals Convenor (see section 109(3) of the EP Act)
- the authority that originally made the decision under appeal (see section 106(1)).

To properly advise the Minister in our report, our investigation included:

- reviewing the EPA's report and recommendations, and response to the appeals
- meeting with the proponent (18 January 2024)
- reviewing other information, policy and guidance as needed (Table 2).

Table 2 Documents we reviewed in the appeals investigation

Document	Date
Arup Jacobs Joint Venture (2018a) Great Northern Highway, Muchea to Wubin Upgrade - Stage 2, Main Roads Western Australia, Bindoon Bypass Noise Assessment . Appendix I of the environmental review document.	21 August 2018
Arup (2018b) Bindoon Bypass Project – Landscape Character and Visual Impact Assessment . Appendix J of the Environmental Review Document.	6 July 2018
Arup (2018c) Technical Note – GNH CN12 Bindoon – Lighting – concept design . Appendix K of the Environmental Review Document.	6 July 2018
Environmental Protection Authority (2023a) Great Northern Highway - Bindoon Bypass. Report 1742 .	16 June 2023
Environmental Protection Authority (2023b) Environmental Factor Guideline - Social Surroundings	20 November 2023

Document	Date
Environmental Protection Authority (2023c) response to Appeal 023/23 (08/09/23).	8 September 2023
Department of Planning, Lands and Heritage (as revised) Shire of Chittering Local Planning Scheme No.6; District Zoning Scheme . Originally gazetted 30 November 2004.	5 May 2023 (current version)
Main Roads Western Australia (2022) Bindoon Bypass Environmental Review Document Response to Submissions .	31 May 2022
Main Roads Western Australia (2023) response to Appeal 023/23 (15/08/23).	15 August 2023
Western Australian Planning Commission (2019a) State Planning Policy 5.4 Road and Rail Transport Noise . Prepared under Part Three of the <i>Planning and Development Act 2005</i> . Government of Western Australia.	September 2019
Western Australian Planning Commission (2019b) State Planning Policy 5.4 Road and Rail Noise Guidelines .	September 2019
Western Australian Planning Commission (2019c) Shire of Chittering Local Planning Strategy .	10 October 2019