

## 5.5.2 Waste Collection

Under the EPNR Regulation 14A, the assigned noise levels of Regulation 7 do not apply to waste collection (both domestic and commercial sources), provided:

- The works are carried out in the quietest reasonable and practicable manner;
- The equipment used to carry out the works is the quietest reasonable available; and
- In the case where a noise management plan is required (e.g. works are to occur outside of 0700 – 1900 hours Monday through Saturday or 0900 – 1900 hours Sundays and public holidays), the plan is submitted and approved, with works carried out according to the plan.

However, assessment of predicted noise emissions due to waste collection has been carried out as a due diligence. The Waste Consultant has indicated that rear-lift and flat-bed trucks will be used for refuse and recycling collection. Waste will be collected daily, with recycling collected fortnightly. It is assumed that there is no waste compaction or recyclables processing is conducted on site.

Sound Power Levels of typical activities obtained from previous Stantec measurements have been used as model inputs. The noise sources modelled are provided in Table 14. The sources considered represent worst-case concurrent waste collection activities.

**Table 16: Sound Power Levels – Waste Collection**

Noise Sources <sup>1</sup>	Sound Power Level, dB(A)
12.5m rigid truck driving and reversing	99
Glass bottles being individually dumped into 240L bins <sup>2</sup>	91

*Note 1: The combined spectrum has been corrected based measurement conditions (i.e. distance, proximity to reflective surfaces etc.)*

*Note 2: Based on European Directive 2000/14/EC and European Commission DG Growth: Equipment Noise by Type, 22 – Glass Recycling Containers, Measured Sound Power Levels.*

Prediction results are presented in Table 17. Noise contours for collection from the restaurant/tavern bin store as well as the maintenance shed bin store are presented in Appendix B.

Compliance to the EPNR is predicted, with the recommendation that waste collection occur between 0700 – 1900 hours Monday to Saturday only. Generally, local councils cannot confirm collection times for waste collections, however they endeavour to conduct waste collection during the hours 0700 – 1900 hr Monday to Saturday in accordance with the WA Department of Environmental Regulation's Draft Guide to Management of Noise from Waste Collection and Other Works (December 2014).

Noise levels at the Accommodation Pods are predicted to be up to 46 dB(A) externally, below the design level of 60 dB(A).

**Table 17: Waste Collection Noise Emissions at External Receivers**

Time of Day	Most Stringent EPNR $L_{A10}$	1 First St	2 Second Ave	9 Third Ave	1 Hedditch St	3 Back Beach Rd	29 Simpson St	Complies? (Y/N)
0700-1900 hr Mon-Sat	45 dB(A)	38	31	38	35	32	30	YES

The following administrative measures are recommended:

- Where possible, in communication with the Shire, endeavor to have waste and recycling collected after 7 am, as this is the 'daytime' period of the EPNR and may be less of a disruption;
- An effort should be made to avoid the waste collection and recycling trucks being on site at the same time;

- If a truck is waiting in the carpark for bin access, the engine should be switched off; and
- Glass recycling trucks should not crush the bottles on premises but rather at a less noise sensitive location.

The emptying of bins, especially when filled with glass bottles, can be an occupational peak noise hazard to the operator, as well as significant source of environmental noise. The follow administrative measures are recommended:

- Venue staff should take care to reduce the drop height of glass onto glass when filling bins; and
- The handling of bins full of glass bottles should occur during daytime hours where possible to minimise disruption to the community.

## 5.6 Child Noise Emissions

Noise from children playing in the Creche could potentially be disruptive to nearby sensitive receivers.

The '*Guideline for Child Care Acoustic Assessment*' (Association of Australian Acoustical Consultants, 2013) provides an estimate of child Sound Power Levels. A group of 25 children playing in the outdoor area, of mixed ages from 0 – 6 years, would have a Sound Power Level of approximately 90 dBA.

As the nearest external receivers are 170m away, noise emissions are expected to comply with the EPNR.

The noise level at the nearest accommodation pods (approx. 25m) would be at least 6 dB below the predicted Onslow Salt emissions and would therefore not be considered a significant contributor.

## 5.7 Mechanical Services Noise Emissions

Noise generated via the mechanical services from the proposed development is required to comply with the EPNR criteria at all nearest sensitive receivers. Once details of equipment are available, appropriate recommendations will be provided as required to comply with the EPNR at all times of day.

The design should ensure that mechanical plant selected for the development is the quietest possible, is located away from noise sensitive premises and shielded and/or attenuated as required to meet the assigned levels of the EPNR.

The following equipment is likely to be included on the project site and will require acoustic review as the design develops:

- Accommodation pod and communal building condenser units and extraction fans;
- Hot water system heat pumps;
- Tavern and Restaurant cool room/ freezer room refrigeration condensers (24-hour operation);
- Tavern and Restaurant kitchen extract fans;
- Pool plant;
- Potential for recycling plant or box crushers;
- Potential for a water treatment plant (containerised);
- Potential for an on-site back-up generator (containerised); and
- Fire pumps.

Any equipment located outside an enclosed building should be of the quietest model practically available. Equipment selections shall be submitted to acoustic engineer prior to installation.

Containerised plant shall have acoustically rated enclosures and mufflers as required to ensure acceptable noise levels within the project site.

## 6. Conclusion

Stantec were engaged by Mineral Resources Limited (c/- Milieu Creative Design Group) to conduct acoustic assessment for the Onslow Township Village in Onslow WA.

Acoustic criteria were established based on the requirements outlined in the Regulations, Australian Standards and the Functional Brief.

Predictive noise assessment and noise management recommendations to support the Development Application have been provided, with the aim of ensuring an appropriate level of acoustic amenity for future occupants.

A review of the mechanical services plant will be undertaken as the design develops, with recommendations provided as necessary to satisfy the design criteria.

## Appendix A Glossary of Acoustic Terms

<b>NOISE</b>	
Acceptable Noise Level:	The acceptable LAeq noise level from industrial sources, recommended by the EPA (Table 2.1, INP). Note that this noise level refers to all industrial sources at the receiver location, and not only noise due to a specific project under consideration.
Adverse Weather:	Weather conditions that affect noise (wind and temperature inversions) that occur at a particular site for a significant period of time. The previous conditions are for wind occurring more than 30% of the time in any assessment period in any season and/or for temperature inversions occurring more than 30% of the nights in winter).
Acoustic Barrier:	Solid walls or partitions, solid fences, earth mounds, earth berms, buildings, etc. used to reduce noise.
Ambient Noise:	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Assessment Period:	The period in a day over which assessments are made.
Assessment Location	The position at which noise measurements are undertaken or estimated.
Background Noise:	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L90 noise level.
Decibel [dB]:	The units of sound pressure level.
dB(A):	A-weighted decibels. Noise measured using the A filter.
Extraneous Noise:	Noise resulting from activities that are not typical of the area. Atypical activities include construction, and traffic generated by holidays period and by special events such as concert or sporting events. Normal daily traffic is not considered to be extraneous.
Free Field:	An environment in which there are no acoustic reflective surfaces. Free field noise measurements are carried out outdoors at least 3.5m from any acoustic reflecting structures other than the ground
Frequency:	Frequency is synonymous to pitch. Frequency or pitch can be measured on a scale in units of Hertz (Hz).
Impulsive Noise:	Noise having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise.
Intermittent Noise:	Level that drops to the background noise level several times during the period of observation.
LAm <sub>ax</sub>	The maximum A-weighted sound pressure level measured over a period.
LAm <sub>in</sub>	The minimum A-weighted sound pressure level measured over a period.
LA1	The A-weighted sound pressure level that is exceeded for 1% of the time for which the sound is measured.
LA10	The A-weighted sound pressure level that is exceeded for 10% of the time for which the sound is measured.
LA90	The A-weighted level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
LAeq	The A-weighted "equivalent noise level" is the summation of noise events and integrated over a selected period of time.

LAeqT	The constant A-weighted sound which has the same energy as the fluctuating sound of the traffic, averaged over time T.
Reflection:	Sound wave changed in direction of propagation due to a solid object met on its path.
R-w:	The Sound Insulation Rating R-w is a measure of the noise reduction performance of the partition.
SEL:	Sound Exposure Level is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain Leq sound levels over any period of time and can be used for predicting noise at various locations.
Sound Absorption:	The ability of a material to absorb sound energy through its conversion into thermal energy.
Sound Level Meter:	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound Pressure Level:	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone.
Sound Power Level:	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power.
Tonal noise:	Containing a prominent frequency and characterised by a definite pitch.

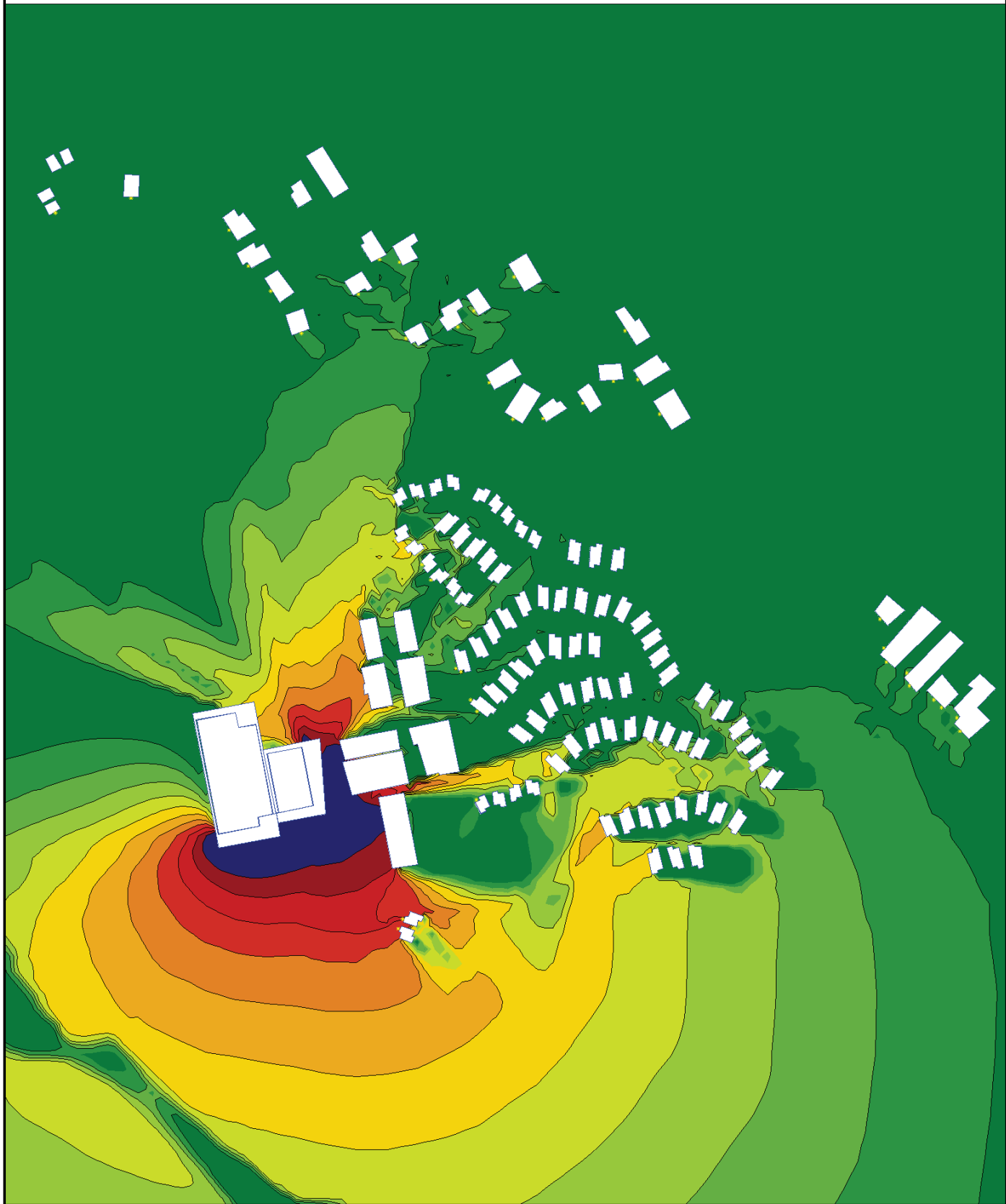
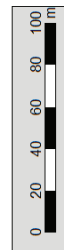
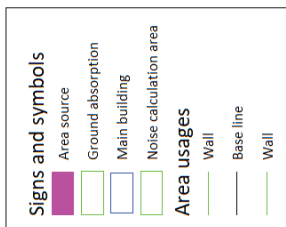
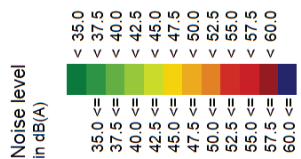
## Appendix B Noise Contour Maps

# Onslow Iron Accommodation

301250498  
25/08/21  
BEM

TAVERN & RESTAURANT  
PATRON & MUSIC NOISE  
- DAY/EVENING

NOISE CONTOUR AT  
1.5m RECIEVER HEIGHT

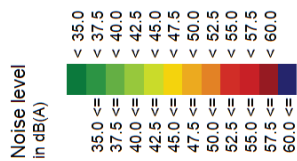


# Onslow Iron Accommodation

301250498  
25/08/21  
BEM

TAVERN & RESTAURANT  
PATRON & MUSIC NOISE  
- NIGHT

NOISE CONTOUR AT  
1.5m RECIEVER HEIGHT

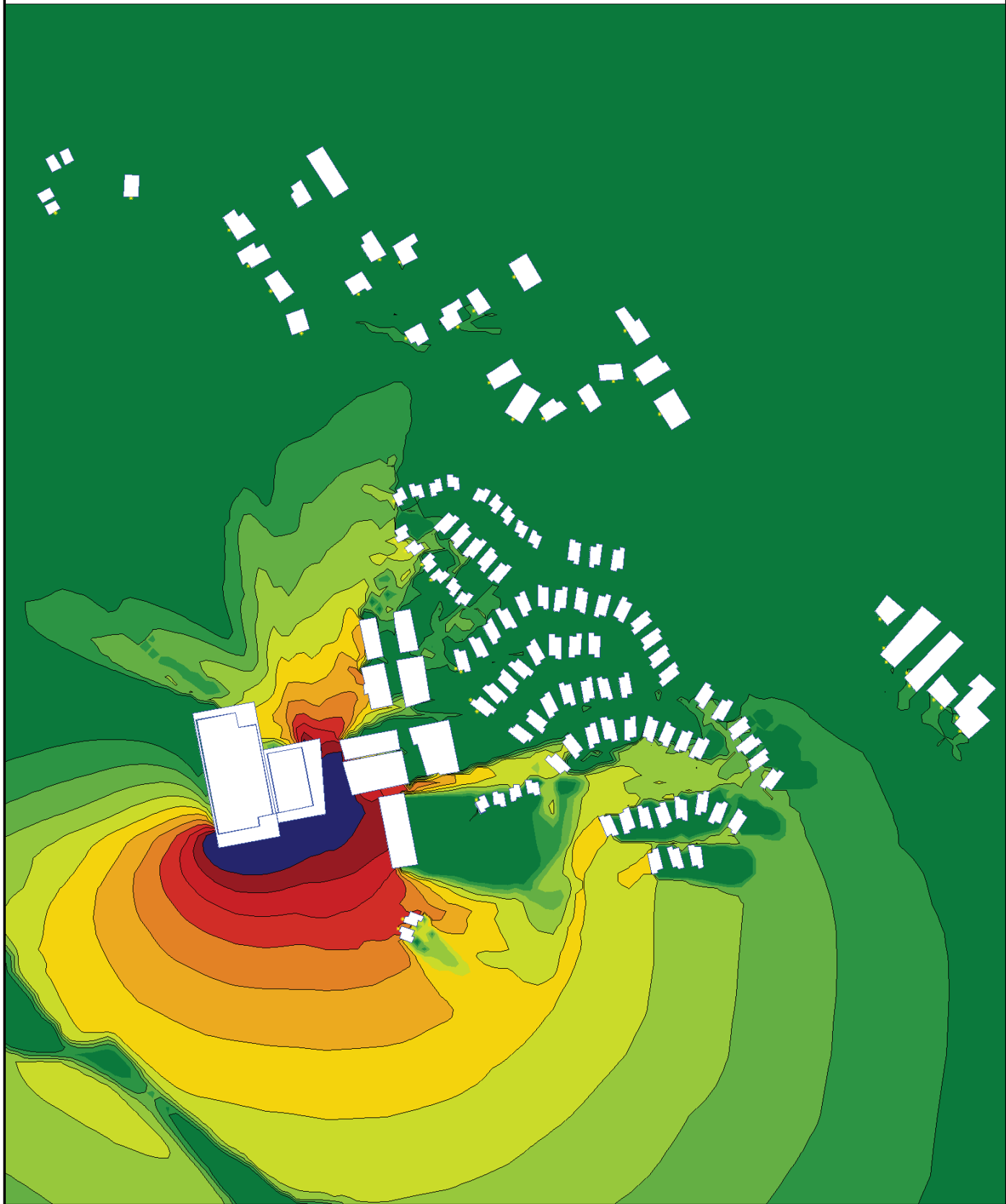


**Signs and symbols**

- Area source
- Ground absorption
- Main building
- Noise calculation area

**Area usages**

- Wall
- Base line
- Wall



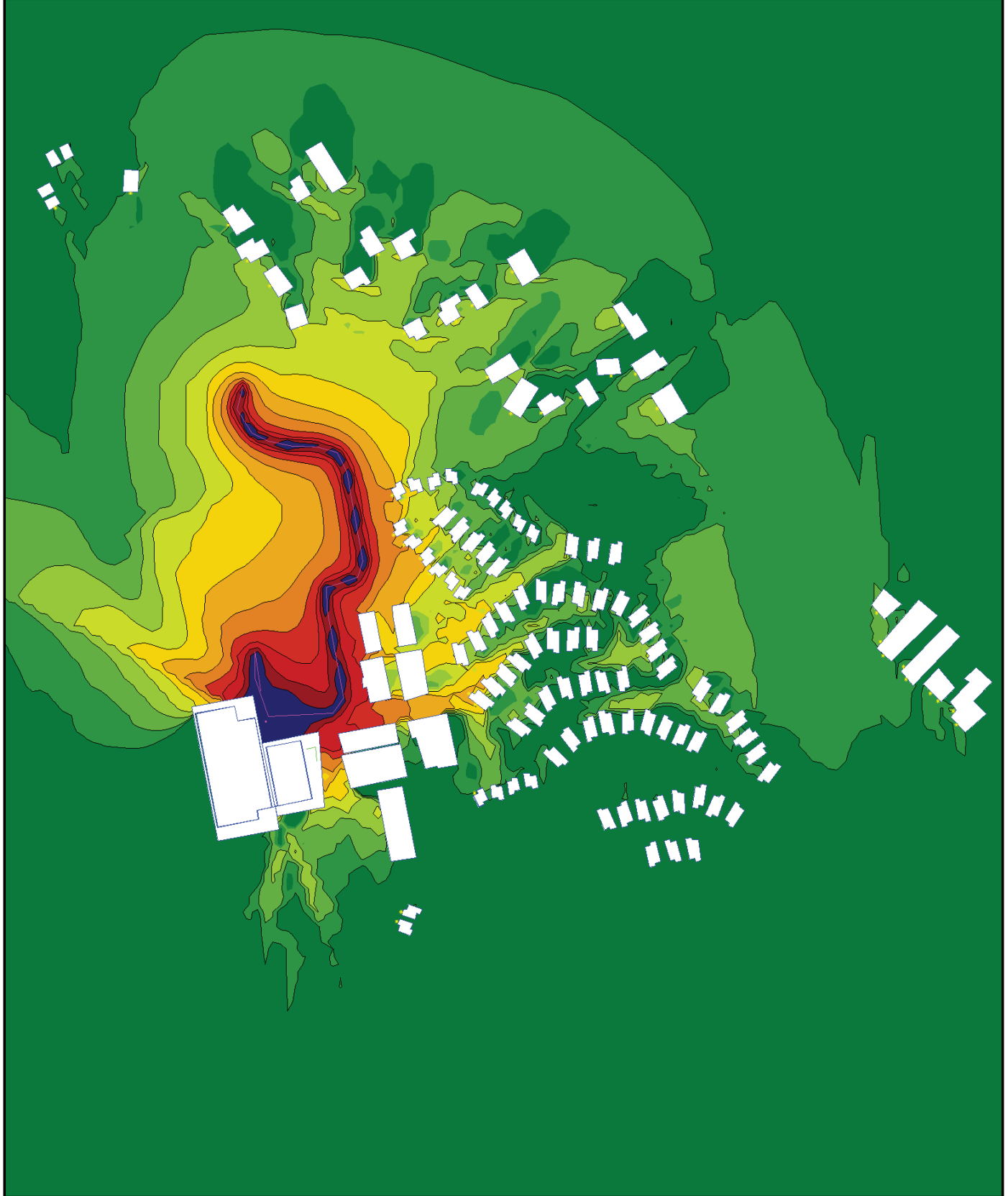
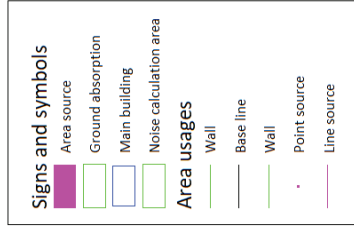
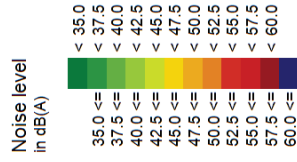


# Onslow Iron Accommodation

301250498  
04/08/21  
BEM

LOADING DOCK NOISE EMISSIONS - DAYTIME

NOISE CONTOUR AT 1.5m RECIEVER HEIGHT



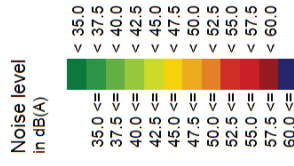
# Onslow Iron Accommodation

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BEM

WASTE COLLECTION NOISE EMISSIONS - DAYTIME

TAVERN/RESTAURANT BIN STORE

NOISE CONTOUR AT 1.5m RECEIVER HEIGHT

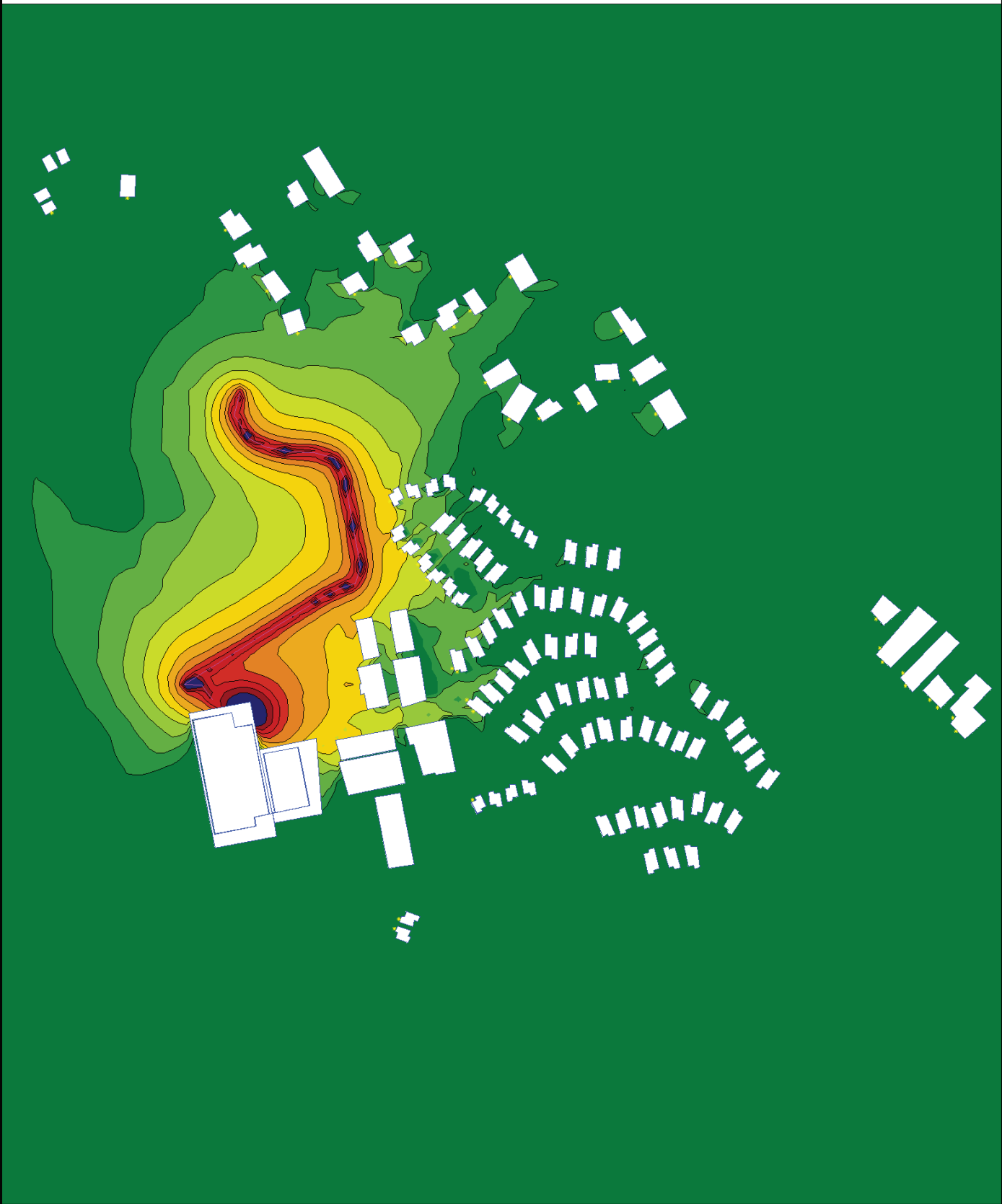
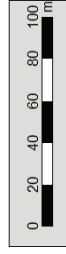


**Signs and symbols**

- Area source
- Ground absorption
- Main building
- Noise calculation area

**Area usages**

- Wall
- Base line
- Wall
- Point source
- Line source



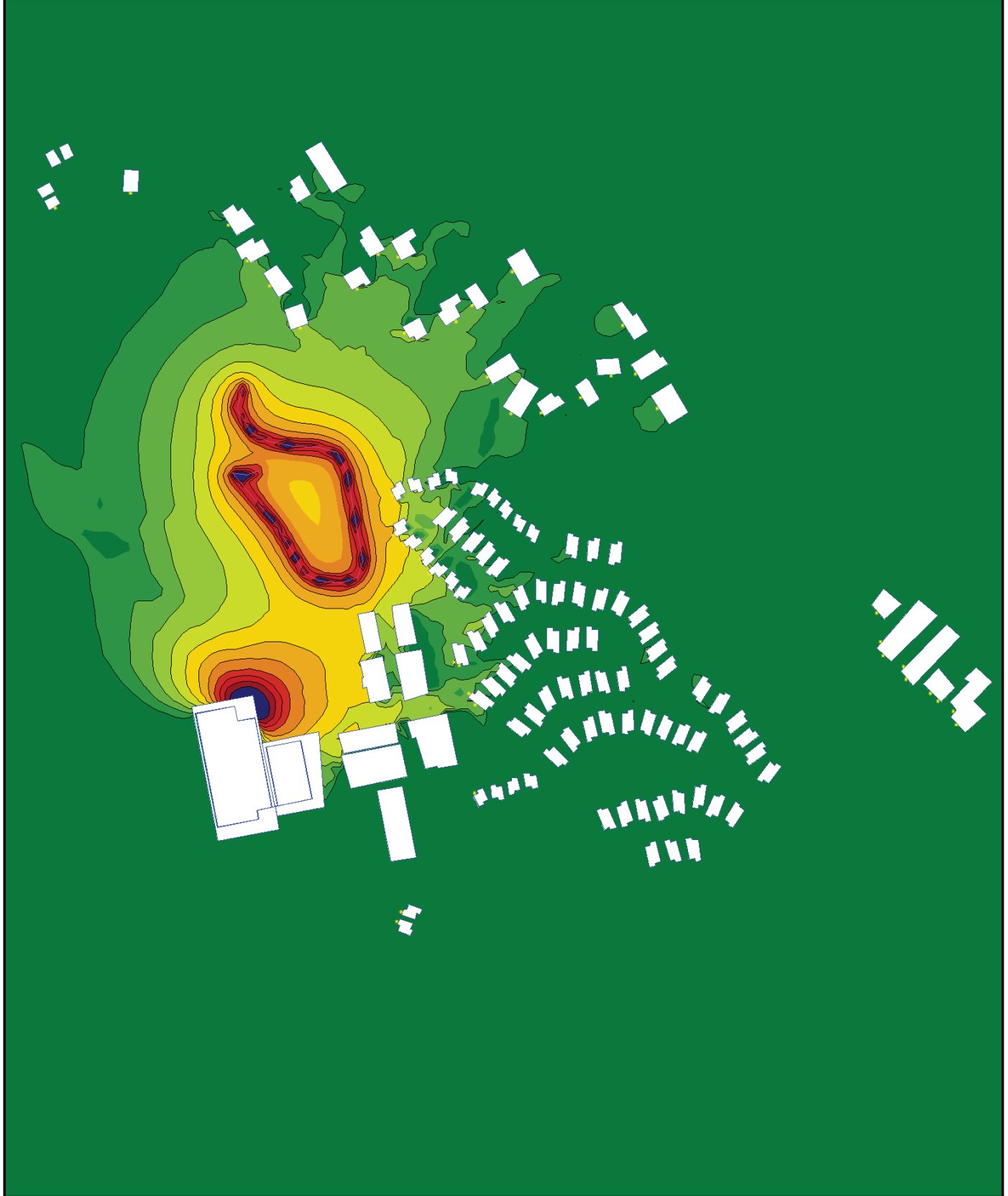
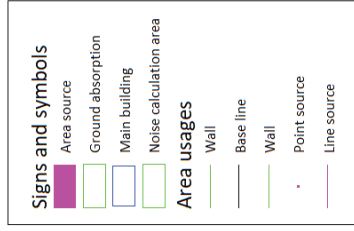
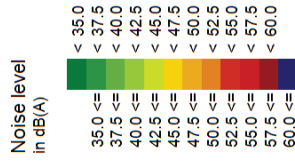
# Onslow Iron Accommodation

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WASTE COLLECTION NOISE EMISSIONS - DAYTIME

MAINTENANCE SHEDS BIN STORE

NOISE CONTOUR AT 1.5m RECEIVER HEIGHT

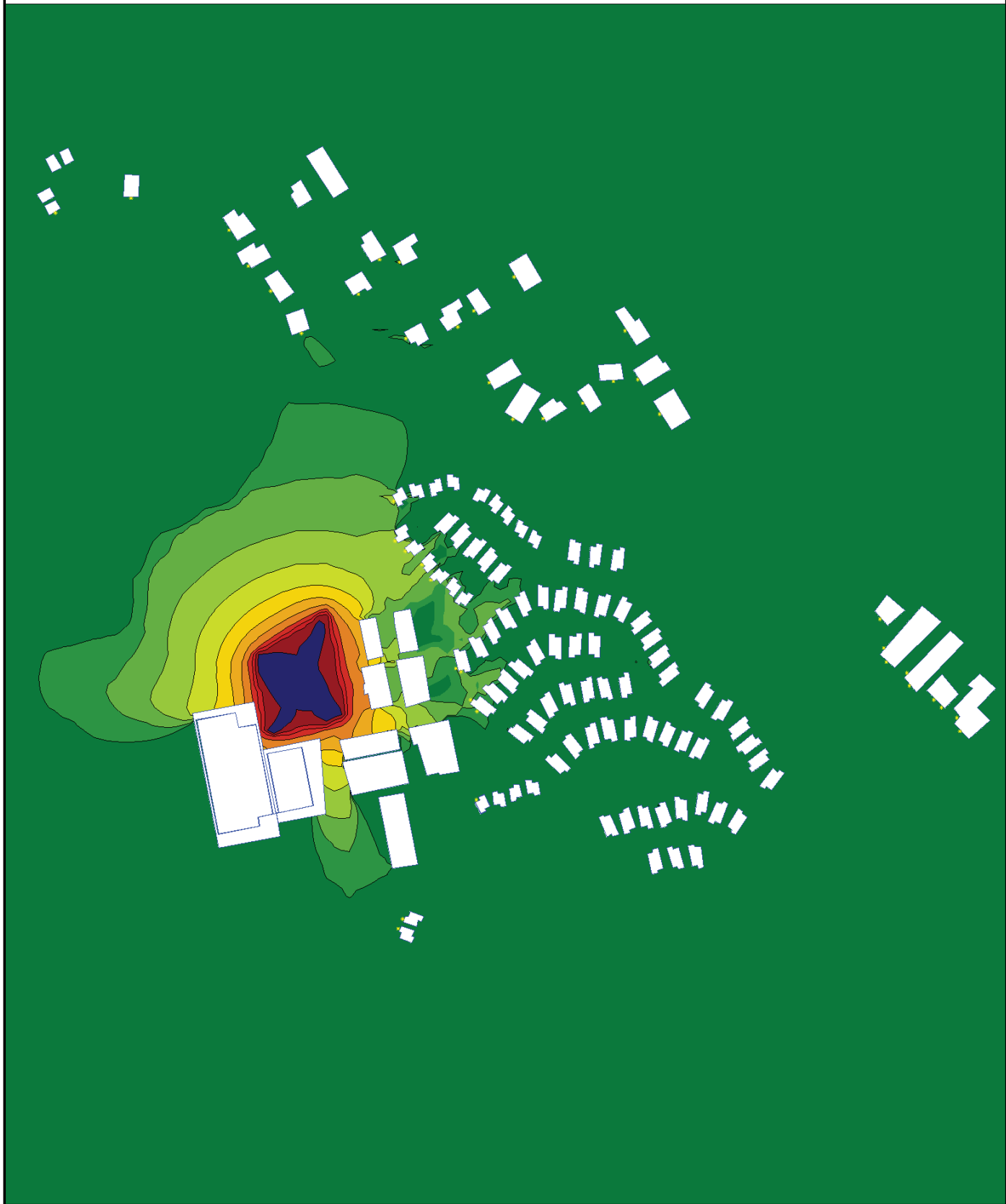
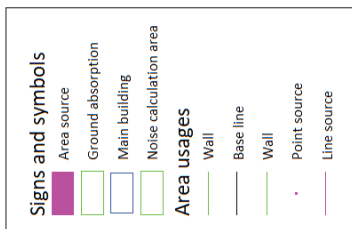
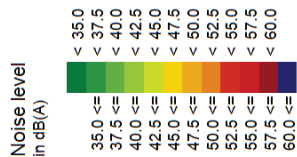


# Onslow Iron Accommodation

301250498  
04/08/21  
BEM

CARPARK NOISE, L10  
EMISSIONS - NIGHT

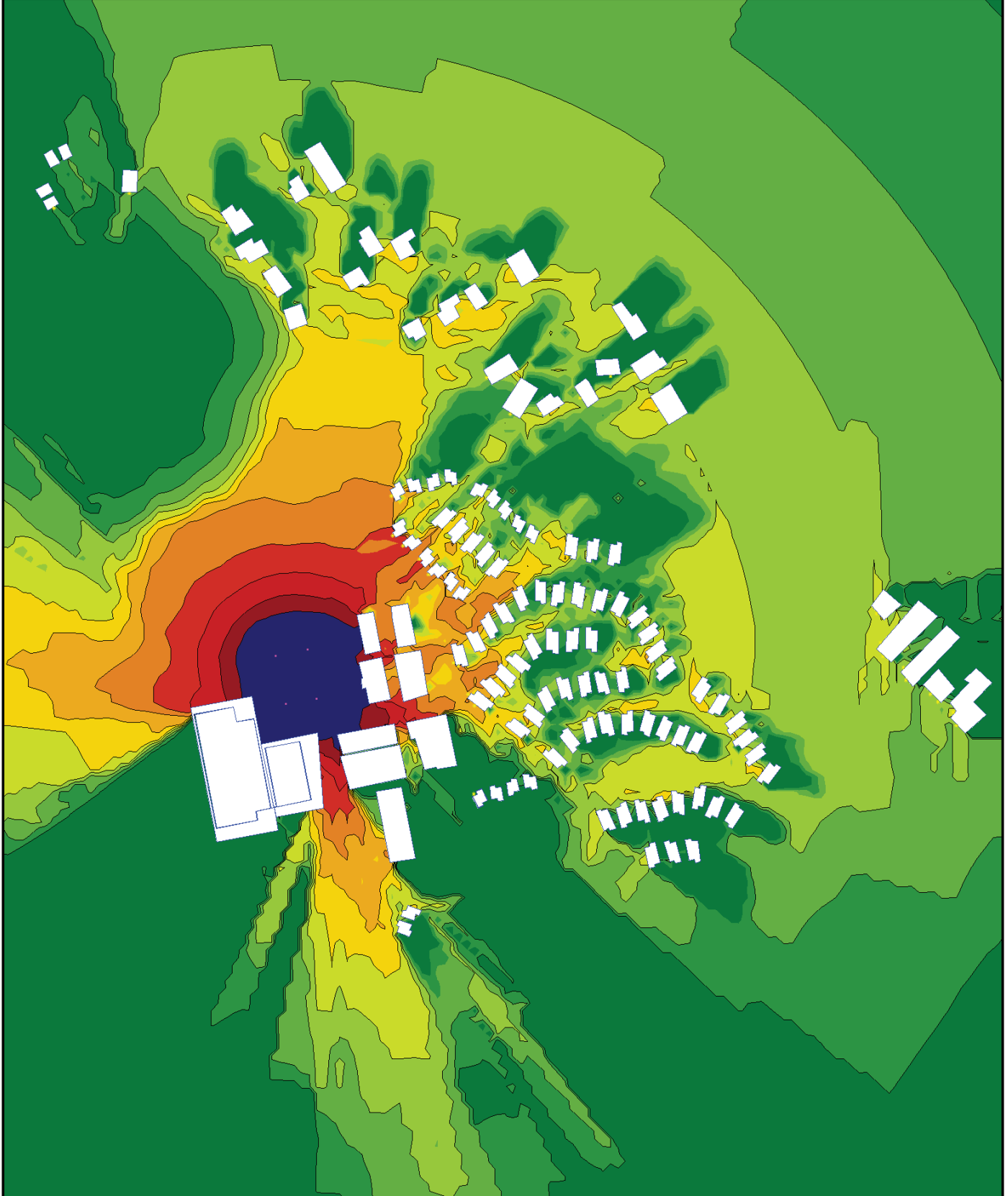
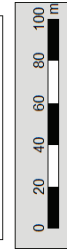
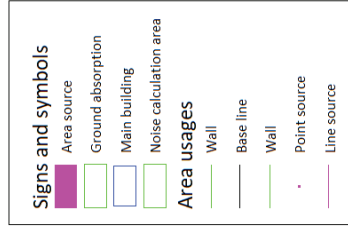
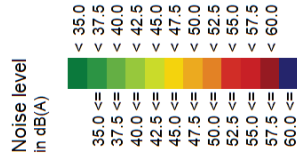
NOISE CONTOUR AT  
1.5m RECIEVER HEIGHT



# Onslow Iron Accommodation

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04/08/21  
BEM

CARPARK NOISE, L1  
EMISSIONS - NIGHT  
NOISE CONTOUR AT  
1.5m RECEIVER HEIGHT

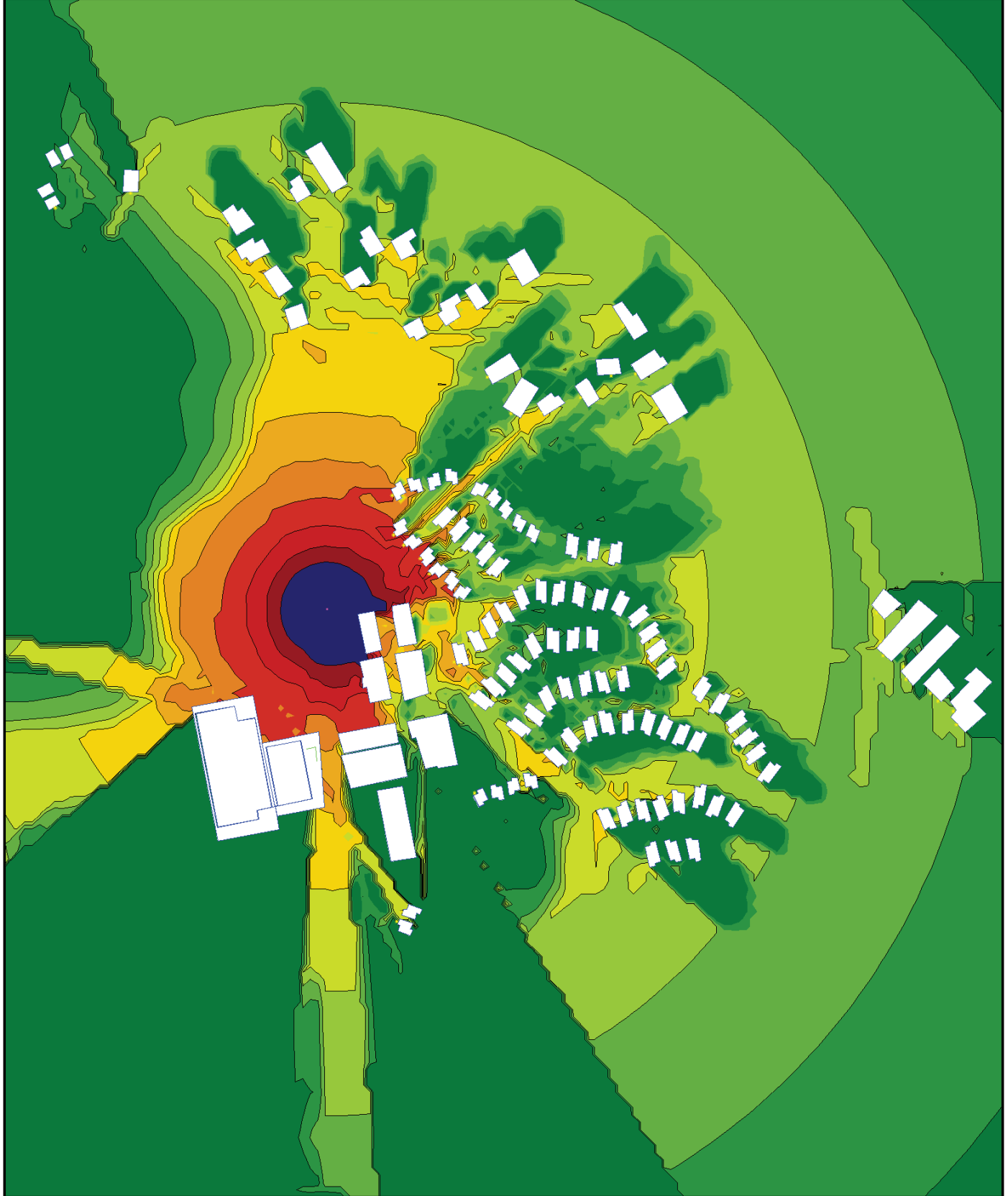
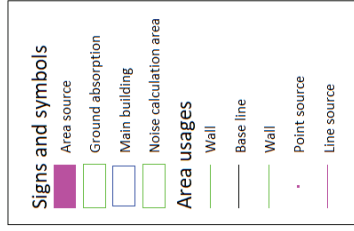
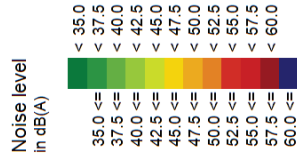


# Onslow Iron Accommodation

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04/08/21  
BEM

CARPARK NOISE, Lmax  
EMISSIONS - NIGHT

NOISE CONTOUR AT  
1.5m RECIEVER HEIGHT







**13.2B - DAP Application – DAP/21/02078 -Da 21-67 | L300 Back Beach Road,  
Onslow - Transient Workforce Accommodation (500 Persons)**



**BACK BEACH ROAD, 300 (LOT 300) ONSLOW – TRANSIENT  
WORKFORCE ACCOMMODATION (500 PERSONS)**

**Form 1 – Responsible Authority Report  
(Regulation 12)**

<b>DAP Name:</b>	Regional Joint Development Assessment Panel
<b>Local Government Area:</b>	Shire of Ashburton
<b>Applicant:</b>	Rowe Group
<b>Owner:</b>	State of Western Australia
<b>Value of Development:</b>	\$100 million <input checked="" type="checkbox"/> Mandatory (Regulation 5) <input type="checkbox"/> Opt In (Regulation 6)
<b>Responsible Authority:</b>	Shire of Ashburton
<b>Authorising Officer:</b>	Statutory Planning Officer
<b>LG Reference:</b>	DA 21-67
<b>DAP File No:</b>	DAP/21/02078
<b>Application Received Date:</b>	10 September 2021
<b>Report Due Date:</b>	15 December 2021
<b>Application Statutory Process Timeframe:</b>	90 Days
<b>Attachment(s):</b>	<ol style="list-style-type: none"> <li>1. Development Application Forms (Form 1 And SoA DA Form)</li> <li>2. Planning Report, inclusive of; <ol style="list-style-type: none"> <li>A. Certificate Of Title And Deposited Plan</li> <li>B. BTAC Letter Of Consent</li> <li>C. Environmental Assessment Report</li> <li>D. Development Application Plans</li> <li>E. Coastal Hazard Assessment</li> <li>F. Servicing Reports</li> <li>G. Waste Management Plan</li> <li>H. Landscaping Plans</li> <li>I. Traffic Impact Assessment</li> <li>J. Acoustic Assessment</li> </ol> </li> <li>3. Social Impact Assessment</li> <li>4. Economic Impact Assessment</li> <li>5. Peer Reviewed Environmental Report – Review Summary Table</li> <li>6. Schedule of Submissions (Recommended Response, including referral agencies and Applicant Comments)</li> <li>7. Received Further Information (RFI): <ol style="list-style-type: none"> <li>A. RFI Cover Letter</li> <li>B. RFI Environmental Assessment Report Response</li> <li>C. Indicative Clearing Plan</li> <li>D. Renders</li> </ol> </li> </ol>

	E. Revised Site Plans (a) DA002 – Site Master Plan_Rev E (b) DA003 – Site Plan – North East_Rev E F. Updated Transport Impact Statement G. Transport Impact Statement – Peer Review_Rev A – Thomas Geer 8. Schedule of Submissions	
<b>Is the Responsible Authority Recommendation the same as the Officer Recommendation?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A	Complete Responsible Authority Recommendation section
	<input type="checkbox"/> No	Complete Responsible Authority and Officer Recommendation sections

### Responsible Authority Recommendation

That the Regional Joint Development Assessment Panel resolves to:

- A. Refuse DAP Application reference DAP/21/02078 and accompanying plans in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the Planning and Development (Local Planning Schemes) Regulations 2015 and Clauses 3.2 and 4.2 of the Shire of Ashburton Local Planning Scheme No.7, for the “Transient Workforce Accommodation” at Lot 300 Back Beach Road, Onslow, for the following reasons:
1. Pursuant to Schedule 2, Part 9, Clause 67 (2)(h) of the Planning and Development (Local Planning Schemes) Regulations 2015, the development does not adequately satisfy the provisions and objectives of the Onslow Townsite Expansion Structure Plan.
  2. Pursuant to Schedule 2, Part 9, Clause 67 (2)(o) of the Planning and Development (Local Planning Schemes) Regulations 2015, the proposed development does not satisfy the relevant provisions pertaining to the likely impact of the development on the natural environment or water resources and any means that are proposed to protect or to mitigate impacts on the natural environment or the water resource,
  3. Pursuant to Schedule 2, Part 9, Clause 67 (2)(r) of the Planning and Development (Local Planning Schemes) Regulations 2015, the proposed development does not satisfy the relevant provisions pertaining to the suitability of the land for the development taking into account the possible risk associated with Unexploded Ordinance (UXO), asbestos containing materials (ACM), asbestos fines (AF) or fibrous asbestos (FA) and Acid Sulphate Soil (ASS)
  4. Pursuant to Schedule 2, Part 9, Clause 67 (2)(t) of the Planning and Development (Local Planning Schemes) Regulations 2015, the traffic modelling does not accurately determine whether or not the traffic generated by the development will not have an adverse impact on the surrounding road network.

5. Pursuant to Schedule 2, Part 9, Clause 67 (2)(v) of the Planning and Development (Local Planning Schemes) Regulations 2015, the proposed development does not satisfy the relevant provisions pertaining to the potential loss of amenity and community benefit of the site, in relation to the environmental significance and community values associated with the natural vegetation.
6. Pursuant to Schedule 2, Part 9, Clause 67 (2)(y) of the Planning and Development (Local Planning Schemes) Regulations 2015, submissions received in relation to the proposed development raise valid concerns surrounding the lack of orderly and proper planning.

**Details: outline of development application**

<b>Region Scheme</b>	N/A
<b>Region Scheme - Zone/Reserve</b>	N/A
<b>Local Planning Scheme</b>	Shire of Ashburton Local Planning Scheme No. 7
<b>Local Planning Scheme - Zone/Reserve</b>	<b>Reserve:</b> Conservation, Recreation and Nature Landscape
<b>Structure Plan/Precinct Plan</b>	Onslow Townsite Expansion Structure Plan
<b>Structure Plan/Precinct Plan - Land Use Designation</b>	Area Subject to Further Investigation
<b>Use Class and permissibility:</b>	Transient Workforce Accommodation – ‘D’ Private Recreation – ‘A’ Entertainment Venue – ‘A’ Restaurant. – ‘A’
<b>Lot Size:</b>	20.4485ha
<b>Existing Land Use:</b>	Vacant Land
<b>State Heritage Register</b>	No
<b>Local Heritage</b>	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Heritage List <input type="checkbox"/> Heritage Area
<b>Design Review</b>	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Local Design Review Panel <input type="checkbox"/> State Design Review Panel <input type="checkbox"/> Other
<b>Bushfire Prone Area</b>	Yes <i>Refer to SPP3.7 for further information</i>
<b>Swan River Trust Area</b>	No

**Proposal:**

This application for Development Approval, which seeks approval from the Regional Joint Development Assessment Panel (JDAP) for the development of a transient workers accommodation resort, herein referred to as the ‘Onslow Village’.

The application proposes the following as part of the development of the site:

**Transient Workforce Accommodation** One hundred and forty three (143) accommodation pods, totalling 500 bedrooms, ranging between three (3) different accommodation pod designs, as described below:

A total of thirty six (36) Type A Accommodation Pods:

- Designed to sleep two (2) people within separate 35.3m<sup>2</sup> pods; and
- Equipped with reverse cycle air-conditioning, Queen-size bed, bathroom, lounge area and kitchenette.

A total of 104 Type B Accommodation Pods:

- Designed to sleep four (4) people within separate 29.2m<sup>2</sup> pods; and
- Equipped with reverse cycle air conditioning, Queen-size bed, bathroom and kitchenette.

A total of three (3) Accessible Accommodation Pods (Type C):

- Designed to sleep two (2) people within separate 36.5m<sup>2</sup> pods;
- Equipped with reverse cycle air conditioning, Queen-size bed, bathroom and kitchenette; and
- Designed to the minimum Australian Standards for universal accessibility.

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<b>Restaurant</b>	<ul style="list-style-type: none"> <li>• Dining area of approximately 786m<sup>2</sup> and outdoor seating area of 245.5m<sup>2</sup>;</li> <li>• Fully equipped kitchen and food preparation area;</li> <li>• Bathroom facilities; and</li> <li>• Fridge / food storage areas.</li> </ul>
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<b>Tavern</b>	<ul style="list-style-type: none"> <li>• Dining area of approximately 331m<sup>2</sup> and 76m<sup>2</sup> of outdoor seating area;</li> <li>• Shared alfresco area of approximately 181.5m<sup>2</sup>;</li> <li>• Outdoor cooking area;</li> <li>• Fully equipped kitchen / food preparation area and food storage areas;</li> <li>• Bathroom facilities.</li> </ul>
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<b>Recreation Facilities</b>	<ul style="list-style-type: none"> <li>• Gymnasium with cardio /weight and other fitness equipment;</li> <li>• Swimming Pool;</li> <li>• Multi-purpose sports court;</li> <li>• Indoor / Outdoor Cricket facilities;</li> <li>• Golf putting green and indoor driving range;</li> <li>• Locker and change rooms; and</li> <li>• Other recreation facilities.</li> </ul>
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<b>Administration Facilities</b>	<ul style="list-style-type: none"> <li>• Administration office to service the day-to-day needs of the facility;</li> <li>• Resort retail facility selling daily goods and services to residents;</li> <li>• Barista coffee shop / juice bar;</li> <li>• Meeting and Training Rooms;</li> <li>• Communications room;</li> <li>• Medical Centre with first aid and emergency response team with suitable access for ambulance / fire truck service; and</li> <li>• Ablution facilities.</li> </ul>
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- |                         |              |  |
|-------------------------|--------------|--|
| <b>Other Structures</b> | <b>Minor</b> | <ul style="list-style-type: none"> <li>• Storage and maintenance sheds;</li> <li>• Cleaners laundry;</li> <li>• Residents laundry;</li> <li>• Wastewater treatment plants; and</li> <li>• Car parking and access roads for light vehicles, coaches / buses.</li> </ul> |
|-------------------------|--------------|--|

It is noted that the predominant use of the site is to remain the 'Transient Workforce Accommodation', with the additional land uses identified as being ancillary.

**Background:**

Lot 300 Back Beach Road, Onslow (formally known as Lot 300 on Deposited Plan 67927, Certificate of Title Volume LR3160 Folio 90) has a site area of 20.45 hectares, with a frontage of 467m to Back Beach Road and 114.17m to Third Avenue.

The site is situated approximately 300m due west of the centre of the Onslow townsite and is surrounded by the following land uses:

**North**

- Lot 3503, 3504, 3506, 3507 and 3509 on DP 408853 (Unallocated Crown Land) reserved for 'Conservation, Recreation and Natural Landscape' (the subject lots form Sunrise and Sunset Beaches); and,
- Lot 381 on DP 205462, designated for tourism purposes; it should be noted that the site has an adopted Local Planning Policy that dictates the provisions and design for future development on the site; and,
- Lot 574 on DP 180574, vested to the Shire of Ashburton under Management Order (R 32702 – Recreation) and is designated Public Purpose – Water and Drainage under LPS7.

**South**

- Back Beach Road bounds the site to the south-west; and,
- A number of smaller lots designated for residential purposes with R-Codes varying from R 12.5 to R30 (site dependant); and,
- Lot 383 on DP 205462, vested to the Shire of Ashburton under Management Order (R 29117 – Tourist Information Bay') and is designated Public Purpose – Water and Drainage under LPS7.
- First Street along a portion of the southern boundary. The road reserve for First Street extends west beyond the intersection with Third Avenue. No formal infrastructure is in place for the extension of First Street at this current time.
- The site is also within close proximity to the Onslow Primary School.

**East**

- Lot 594 on DP 183922, reserved for Public Purposes – Community (the Onslow Police Station); and,
- A number of smaller lots designated for residential purposes with an R-Code of R20; and,
- Third Avenue along the eastern cadastral boundary. The road reserve for Third Avenue extends north beyond the intersection with First Street. No

formal road infrastructure is in place for the extension of Third Avenue at this current time.

**West**

- A portion of Lot 3507 on DP 408853 and Unallocated Crown Land to the west of Back Beach Road is designated Other Purposes – Infrastructure (utilised by Onslow Salt).

No previous planning approvals have been granted for the site.

*Onslow Townsite Strategy*

The Onslow Townsite Strategy was produced by the Shire of Ashburton and adopted in July 2010. The strategy was later endorsed by the WAPC in March 2011.

The Onslow Townsite Strategy sought to provide a strategic direction for the town of Onslow based on the development of Ashburton North Strategic Industrial Area.

The strategy identifies the site of this proposal, as an indicative commercial/ civic centre and a development investigation area. The strategy also identified that the proposed new ring road into Onslow could also be located close to the site.

The Onslow Townsite Strategy recommended that the commercial / civic centre be gradually transitioned outside the coastal hazard risk area, emphasising the need for the Shire to consider its position on this and other options for compliance with SPP 2.6 and its Guidelines.

The Onslow Townsite Strategy has subsequently been superseded by the endorsed Shire of Ashburton Local Planning Strategy.

**Legislation and Policy:**

Legislation

The legislative framework and policy base providing for the assessment and determination of the subject application is as follows:

*Planning and Development Act 2005*

*Planning and Development (Local Planning Schemes) Regulations 2015*

*Schedule 2 (Deemed Provisions)*

*Clause 64 – Advertising Applications*

*Clause 66 – Consultation with other authorities*

*The following provisions of ‘Clause 67 – Consideration of application by local government:*

- (a) *the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area;*
- (c) *any approved State planning policy;*
- (d) *any environmental protection policy approved under the Environmental Protection Act 1986 section 31(d);*
- (e) *any policy of the Commission;*

- (f) *any policy of the State;*
- (fa) *any local planning strategy for this Scheme endorsed by the Commission;*
- (h) *any structure plan or local development plan that relates to the development;*
- (j) *in the case of land reserved under this Scheme, the objectives for the reserve and the additional and permitted uses identified in this Scheme for the reserve;*
- (k) *the built heritage conservation of any place that is of cultural significance;*
- (l) *the effect of the proposal on the cultural heritage significance of the area in which the development is located;*
- (m) *the compatibility of the development with its setting, including —*
  - (i). *the compatibility of the development with the desired future character of its setting; and*
  - (ii). *the relationship of the development to development on adjoining land or on other land in the locality including, but not limited to, the likely effect of the height, bulk, scale, orientation and appearance of the development;*
- (n) *the amenity of the locality including the following —*
  - (i). *environmental impacts of the development;*
  - (ii). *the character of the locality;*
  - (iii). *social impacts of the development;*
- (o) *the likely effect of the development on the natural environment or water resources and any means that are proposed to protect or to mitigate impacts on the natural environment or the water resource;*
- (p) *whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved;*
- (q) *the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bush fire, soil erosion, land degradation or any other risk;*
- (r) *the suitability of the land for the development taking into account the possible risk to human health or safety;*
- (s) *the adequacy of —*
  - a. *the proposed means of access to and egress from the site; and*
  - b. *arrangements for the loading, unloading, manoeuvring and parking of vehicles;*
- (t) *the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety;*
- (u) *the availability and adequacy for the development of the following —*
  - (i). *public transport services;*
  - (ii). *public utility services;*



- (iii). *storage, management and collection of waste;*
- (iv). *access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities);*
- (v). *access by older people and people with disability;*
- (v) *the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses;*
- (w) *the history of the site where the development is to be located;*
- (x) *the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals;*
- (y) *any submissions received on the application;*
- (za) *the comments or submissions received from any authority consulted under clause 66;*
- (zb) *any other planning consideration the local government considers appropriate.*

*Shire of Ashburton Local Planning Scheme No. 7 (The Scheme)*

*Part 3 – Reserves*

*Part 4 – Zones*

State Government Policies

*State Planning Policy 2.6 – Coastal Planning*

*State Planning Policy 3.7 – Planning in Bushfire Prone Areas*

*State Planning Policy 7 – Design of the Built Environment (Vol 1.)*

Structure Plans/Activity Centre Plans

*Onslow Townsite Expansion Structure Plan*

Local Policies

*Local Planning Policy 13 - Transient Workforce Accommodation*

*Local Planning Policy 20 - Social Impact Assessment*

Strategies

*Pilbara Planning and Infrastructure Framework*

*Shire of Ashburton Local Planning Strategy (The Strategy)*

**Consultation:**

Public Consultation

The development application was advertised in accordance with cl. 64 of the *Planning and Development (Local Planning Schemes) Regulations 2015*, for a 'complex application'. The development application was publically advertised in the following ways:

- The development application was publicly advertised on the Shire’s website from 28 September 2021 to 26 October 2021 (28 days) for public comment and submissions; and,
- A letter drop was undertaken for all 87 properties located within a 200m radius of the site (excluding Shire owned property); and,
- A Public Notice was placed within the local newspaper ‘Pilbara News’ on the 29 September 2021, advising of the proposed development application; and,
- Three (3) A2 sized signs placed in conspicuous places on the land the subject of the application giving notice of the proposed development; and,
- The development application advertisement was circulated via the Shire’s Facebook page.

A total of twenty-eight (28) submissions were received during the advertising period (**Attachment 8**), twenty three (23) were objections, two (2) were comments and four (4) were in support.

The following issues and themes were raised within the received submissions from the public in relation proposed development:

Issue	Officer Comments
<i>Site Access</i>	<p>The applicant provided a Traffic Impact Statement (TIS) prepared by Uloth &amp; Associates.</p> <p>The applicant/landowner is proposing to upgrade and utilise Third Avenue to access the site. Traffic associated with the development, particularly heavy haulage vehicles, is prohibited from using Third Avenue, due to impacts on the properties abutting the road and nearby school.</p> <p>The officer notes that the site is provided road frontage to Back Beach Road, the road reserve is adequate in size to support the proposed road widening and utilisation for the shuttle bus services.</p> <p>This volume of traffic represents a significant increase in existing vehicle movements within Third Avenue and Simpson Streets. It is considered the proposed development will have a high impact on the surrounding land uses and transport networks.</p> <p>This concern is supported by the Officer</p>
<i>Environmental</i>	<p>The applicant provided an Environmental Report prepared by 360 Environmental. The report addresses a number of environmental aspects on the site, these include:</p> <ul style="list-style-type: none"> <li>• Contamination</li> <li>• Acid Sulfate Soils</li> </ul>

	<ul style="list-style-type: none"> <li>• Flora and Fauna</li> <li>• Bushfire Management</li> <li>• Urban Water Management</li> <li>• Aboriginal Heritage Sites</li> </ul> <p>The applicant is proposing to clear a portion on the site to accommodate permanent masonry structures on the site.</p> <p>The officer notes that a suite of assessments have been submitted with the planning report for the development. The reports identify that additional specialist studies are required to be undertaken to clarify the extent of known risks and the presence of identified flora and fauna of interest on the site.</p>
<p><i>Noise</i></p>	<p>The Applicant has provided a Noise Impact assessment for the proposed operational noise levels for the site.</p> <p>The Applicant has also acknowledged that noise may be a concern during the construction phase of the development.</p> <p>However, relocation of the site access to Back Beach Road will seek to minimise the noise concerns in relation to the movement of heavy vehicles and the ongoing shuttle buses to site.</p> <p>The layout of the development has also proposed adequate separation between the proposed development and existing residential development.</p> <p>An advice note, identifying to the applicant their roles and responsibilities in relation to noise management shall be included.</p>

Referrals/consultation with Government/Service Agencies

The proposed development application was referred to the following State Agencies and stakeholders for comment:

- Water Corporation (Water Corp)
- Horizon Power
- Main Roads WA (MRWA)
- Heritage Council of WA
- Department of Jobs, Tourism, Science and Innovation (JTSI)
- Environmental Protection Authority
- Department Of Fire and Emergency Services (DFES)
- Department Of Water and Environmental Regulation (DWER)
- Department Of Planning, Lands and Heritage (DPLH)
- Department of Education
- Buurabalayji Thalanyji Aboriginal Corporation (BTAC)

The officer notes that no objections have been raised.

The comments received from State agencies reinforce the need to impose conditions relating to clearing of native vegetation, contamination and bushfire risk management and for the submission of various management plans which are typically applied to developments of this nature.

A copy of the schedule of submissions and recommended response, including correspondence received from State agencies, is included as **Attachment 8** to this report. This includes the applicant's response to the schedule of submissions.

#### Design Review Panel Advice

N/A

#### Swan Valley Planning

N/A

#### Other Advice

##### *Infrastructure*

The Shire's Infrastructure Team have provided the following comments:

- The access point to the development will be required to be from Back Beach Road. This will minimise the overall development traffic impact to the urban transport network and urban environment.
- All internal and external roads are required to be of a sealed surface (either asphalt or concrete) to minimise the impact of dust and erosion and ensure the assets level of service is maintained.
- Due to sensitive nature of the proposed development siting, it is recommended that wastewater disposal only be permitted via the public sewage collection and treatment system owned and operated by Water Corporation. This is to ensure there is not long-term impact on the immediate adjacent marine environment and ensure that there is no odour management requirements.

##### *Waste*

No concerns were raised by the Shire's Waste Team.

##### *Building*

The Shire's Building Team have provided the following comments:

- When they lodge for building approval, the certifier will need to provide justification for the reduced number of accessible units.
- Due to the size of the main mess (restaurant) a hydrant and hose reels is required to be provided on site.
- If the camp is proposed to be retained and converted to 'short stay accommodation', this should be considered prior to construction to ensure the building classification is compliant later.

### **Planning Assessment:**

The proposal has been assessed against all the relevant legislative requirements of the Scheme, State and Local Planning Policies, and Onslow Townsite Expansion Structure Plan outlined in the Legislation and Policy section of this report. The following matters have been identified as key considerations for the determination of this application:

#### State Planning Policy 2.6 – Coastal Planning

*State Coastal Planning Policy 2.6 – Coastal Planning* ('SPP 2.6') is a State Planning Policy. SPP 2.6 provides guidance with respect to the consideration of development that is in proximity to the coast, providing a framework for the management of coastal hazard risk.

SPP2.6 requires that the responsible management authority completes Coastal Hazard Risk Management and Adaptation Planning (CHRMAP) where an existing or proposed development may be at risk from coastal hazards over the planning timeframe. The main purpose of the CHRMAP is to define areas of the coastline which could be vulnerable to coastal hazards and to outline the intended approach to the monitoring and management of these hazards where required.

The Shire undertook a Coastal Hazard Risk Management and Adaptation Plan (CHRMAP) in 2017, which was adopted by the Council on 24 October 2017 and formed part of the Shire of Ashburton Local Planning Strategy.

As noted within the CHRMAP and **Attachment 2(E)** of the submitted documentation, the site is impacted by the predicted 2110 erosion allowance shoreline.

**Attachment 2(E)**, identifies that the overarching strategy for the Onslow Village development is a combined strategy of avoid and managed retreat / removal. The majority of the development's assets will be located outside of the required foreshore reserve area thus avoiding the coastal hazards. The assets that had to be located within the required future foreshore reserve will be subject to managed retreat.

The proposed managed retreat / removal of the accommodation pods, is achievable due to the prefabricated nature of the accommodation pods and the design to allow them to be easily relocated. As such if the coastal hazard risks change, the accommodation pods can easily be relocated to a safer location.

The strategy also includes the retention of a minimum 30 m wide foreshore reserve area for recreation, noting that as the erosion impacts the site a number of the accommodation pods included in the initial development may be within the foreshore

reserve after about 30 years. As such a managed retreat / remove strategy will be implemented for these assets

#### State Planning Policy 3.7 – Planning in Bushfire Prone Areas

*State Planning Policy 3.7 – Planning in Bushfire Prone Areas* (**'SPP 3.7'**) directs how land use should address bushfire risk management in Western Australia. SPP 3.7 applies to all land which has been designated as bushfire prone by the Department of Fire and Emergency Services (**'DFES'**).

The Site is designated as being within a bushfire prone area, and the applicant has provided a Bushfire Management Plan (**'BMP'**) and Bushfire Emergency Evacuation Plan (**'BEEP'**) prepared in accordance with SPP 3.7 and the Guidelines (see **Attachment 2(C)** – Environmental Assessment Report).

The development and the BMP have adequately identified issues arising from the bushfire risk assessment and considered how compliance with the bushfire protection criteria can be achieved.

In order to achieve the BAL 29, the vast majority of the proposed developable area within the site needs to be modified to non-vegetated and low threat vegetation. The Environmental Assessment Report however indicates that some vegetation will be retained on the site. Modifications to the BMP are necessary to ensure it accurately identifies the bushfire risk and necessary mitigation measures.

Given the disparity between the Bushfire Management Plan and the Environmental Assessment Report it is important to understand the extent of clearing and any ramifications this may have on the BMP.

Clarification was sought on this matter through a further information request and is discussed further in the report.

#### State Planning Policy 7 – Design of the Built Environment (Vol 1.)

SPP 7.0 provides a means of defining design principles that establish a definition of 'good design' that can inform design and decision-making processes of the built environment. An assessment of the Design Statement provided with the application is provided below:

Design Principle	Comments
<b>1. Context And Character</b>	<p>The proposed development has sought to address the context of the site, through considerate development design, appropriate building heights and landscaping.</p> <p>The submitted documentation acknowledges the aboriginal heritage of Onslow, with a number of registered sites located in the site of the Onslow Village. The known sites include ceremonial, mythological and artifact scatter. The Applicant is currently liaising with the representatives from the Buurrabalayji Thalanyji Aboriginal Corporation (BTAC) in relation to local aboriginal heritage.</p>

	<p>The proposed masterplan responds to the cultural significance of the site by locating all works away from the culturally significance portion of the site. It is noted that ongoing engagement with BTAC will continue to ensure an appropriate design response and construction methodology. The proposed material palette is considered and restrained has been applied methodically. All buildings and landscaping proposed as part of the development deliver a consistent, legible, and rational architectural response.</p>
<p><b>2. Landscape Quality</b></p>	<p>The site is intrinsically linked to the landscaping that surrounds the development. The development proposes to create a diversity of active and passive recreational spaces with vegetative linkages throughout the site. Landscaping throughout the site consists of a landscape design that incorporates elements of hard and soft landscaping and urban design elements to create external environments that interact with the built form. It is noted that the landscaping is undertaken through a holistic approach that incorporates collaboration between the Civil Engineer, Hydrologist and other environmental specialists to ensure an appropriate application of Water Sensitive Urban Design Principles and to minimise the impact on the site. The proposal seeks to facilitate universal access throughout the site via a network of paved surfaces that link the accommodation units to the amenity and recreational area.</p>
<p><b>3. Built Form And Scale</b></p>	<p>The massing and height of development across the site is predominantly single storey in height and adequately dispersed to provide separation to allow solar access, landscaping and overland water flows. The built form is designed to provide an integrated design that incorporates development at a human scale and design palette that supports the surrounding development and environment. The larger buildings (being the Gym, Multi-Purpose Courts, Tavern and Restaurant) towards the northeastern portion of the site are of a scale more akin to two storey development. However, the development is proposed to be setback into the hill to reduce the perceived bulk of the building when viewed from afar. The proposed development provides a built form that is conducive with the desired future character of the area as defined within the 'Pilbara Vernacular Handbook'. The orientation, proportion, composition, and articulation of the built form elements deliver an outcome that is reflective of the intended purposes and assist in defining the public domain, whilst providing good amenity for people at ground level.</p>
<p><b>4. Functionality And Build Quality</b></p>	<p>The proposed immediate short-term use and functionality of the site, is to facilitate a redefined 'resort style' 500 person transient workforce accommodation development that</p>

	<p>provides amenities and opportunities for public integration into the site.</p> <p>The facility buildings (restaurant, tavern, wellness facilities, coffee outlets, gym and pool) are proposed to be constructed of predominantly masonry elements, to ensure a development life beyond the 30 year workers accommodation use.</p> <p>The accommodation pods are designed with increased functionality and material quality as a key aspect. The accommodation units provide an individual kitchenette, queen bed, lounge room and laundry for each unit. The internal materials proposed are also highly durable and design driven.</p> <p>The structural design of the accommodation units allow for the development to be implemented with minimal ground disturbance, given the stump and footing design. In addition, given the transportable nature of the units, the units can be easily relocated and removed, if not utilised.</p> <p>It is intended that all facilities will be handed over to the local Thalanyji people once the mining operation reaches its 'end-of-life', providing an accommodation facility within the Town Centre, supporting the tourist industry.</p> <p>The development has also accounted for the future impacts of climate change, sea level rise and inundation impacts. The design and layout of the development proposing the permanent facilities above the highest known coastal erosion hazard level as defined by the anticipated 100 –year planning horizon. Furthermore, the portable accommodation pods within the known 2110 hazard level area, are identified to be removed or relocated as part of the retreat strategy, in accordance with SPP 2.6.</p> <p>It is also noted that the services, site infrastructure and plant equipment have been considered and appropriately located at ground level and within accessible areas to ensure that they can be serviceable.</p>
<p><b>5. Sustainability</b></p>	<p>The development has been designed to respond to local climate and site conditions by providing well insulated accommodation pods with deep eaves. The increased depth of the wrap patios (located on both sides of the pods) ensure that the heat loading of the buildings is reduced.</p> <p>The accommodation pods and facility buildings are designed with high quality materials and in a manner that promotes longevity of the building with little ongoing maintenance to the structures and façades. The elevated nature of the accommodation pods and walkways also allow for natural overland flows and support water sensitive urban design for stormwater.</p> <p>The development seeks to include a number of measures to reduce the production of waste on the site, as noted within</p>



	<p><b>Attachment 2(G)</b> – Waste Management Plan and recycle or reuse where possible.</p> <p>In addition, the site is proposed to include a permanent ‘Containers for Change’ refund point that will be facilitated on the site.</p>
<p><b>6. Amenity</b></p>	<p>The development has been designed to deliver a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours. The development design providing environments that are comfortable, productive and healthy.</p> <p>The inclusion of a ‘wellness loop’ that incorporates both active and passive recreational spaces in addition to the facilities available to the workers and the public, provides opportunities for interactions between the workers and the surrounding community and greater amenities available to the townsite and community of Onslow.</p> <p>The proposal seeks to facilitate universal access throughout the site via a network of paved surfaces that link the accommodation units to the amenity and recreational area. The linkages between the distinct areas include shade structures throughout to provide shelter from the seasonal conditions (rain and direct UV rays).</p> <p>The amenity provided to the accommodation pods and publically accessible facilities on the site is of a high standard. Adequate internal amenity is provided to the accommodation pods with the provision of natural ventilation, solar access and outlook dictating the design elements of the buildings. The location and separation of the pods also provide appropriate levels of acoustic protection and visual privacy from the neighbouring pods and properties.</p> <p>The development has also provided adequate separation from the existing dwellings surrounding the development, to minimise and maintain external acoustic amenity.</p>
<p><b>7. Legibility</b></p>	<p>The design of the publically accessible facilities in the northern portion of the site, provide adequate separation between the buildings and built form elements that assist with defining entry points for each building.</p> <p>The scale and bulk of the buildings across the site provide a visual cue of the purpose of each facility. The design of the more populous areas provide greater separation and a larger built form, and the accommodation pods are designed to a more relative human scale that gives the perception of comfort.</p>

	<p>The overall layout of the development and facilities on the site provide a hierarchy of movement paths throughout the site, which facilitates a high degree of walkability and permeability across the site. Movement within the site promotes pedestrian movements over those of any motor vehicles. It is noted that site staff undertaking maintenance or servicing the accommodation pods will be the predominant reason for motor vehicle movements within the accommodation area.</p> <p>Legibility across the site has been considered for all aspects of the development.</p>
<b>8. Safety</b>	<p>Passive surveillance of communal areas and the public realm is provided through the visually permeable design of the development.</p> <p>The internal pathways linkages have at least two access routes, with no 'dead ends' or blind spots. The layout of the accommodation pods is promotes outlook and connection to adjacent residences. The irregularity in the orientation ensures that surveillance is multi-directional throughout the site.</p> <p>Site lighting and digital surveillance of public spaces will be appropriate and comprehensive. A condition will be included to assess the proposed lighting provisions within the site and the impacts.</p>
<b>9. Community</b>	<p>The proposal includes a number of facilities available for residents and the community of Onslow. The facilities provide opportunities for social interaction of differing scales for residents of the camp and the townsite, supporting interactions that provide an increased sense of community.</p>
<b>10. Aesthetics</b>	<p>The development demonstrates a considered and logical response to site through considered use of materials and form to ensure design clarity.</p> <p>The layout of the development, incorporates the heavier masonry elements into the western side of the hill to maintain outlook and reduce effective height, with buildings becoming lighter as they look out towards the ocean. The accommodation pods are proposed as lightweight structures, connected by raised boardwalks, that sit above the existing contours to maintain existing overland water flow and wildlife corridors.</p> <p>In relation to building scale, the development incorporates the characteristics and fabric of Onslow townsite by ensuring building height and size is at a human scale. All buildings are single storey, with floor levels responding to the existing terrain. Where possible, larger buildings are broken up with laneways, landscape, and view corridors, further integrating them into the landscape.</p>

The overarching strategic direction of the development within the Pilbara region is directed through the implementation of the *State Planning Strategy 2050* and *Pilbara Planning and Infrastructure Framework 2012*.

The *State Planning Strategy 2050*, promotes that within the regional areas of Western Australia, consolidation and expansion of existing settlements is required to make regional communities more sustainable in the long term. Likewise the need to avoid ad-hoc and dispersed new settlements in competition with existing settlements should be avoided.

#### Pilbara Planning and Infrastructure Framework

The Pilbara Planning and Infrastructure Framework (PPIF) was published by the State of Western Australia in January 2012. The PPIF set out the strategic direction for the future development of the region over the next 25 years. It addresses the scale and distribution of future population growth and housing development, as well as identifying strategies for dealing with economic growth, environmental issues, transport, infrastructure, water resources, tourism and emerging impacts of climate change.

The PPIF identified (Map 9 – Onslow growth plan) that a portion of the site should be developed as a commercial precinct and a portion of the site developed for residential purposes. The development, as proposed seeks to enact the typology of development envisaged by the PPIF for the site.

#### Shire of Ashburton Local Planning Strategy (The Strategy)

The Shire's Local Planning Strategy (Strategy) was endorsed by the Western Australian Planning Commission (WAPC) on 21 June 2021. The Strategy states as follows with respect to workforce accommodation within the Onslow Townsite:

*“The Shire will continue to advocate for long-term development in the townsite for workforce accommodation as an integrated part of the urban fabric. The Local Planning Strategy recognises that future industry upturns could again trigger a rise in housing demand, As a result, the townsite will remain capable of bringing land online for urban infill, or urban expansion, should it be warranted”.*

The Strategy acknowledges the WAPC Position Statement - 'Workforce Accommodation' which supports the fundamental position that, wherever possible, workers of extractive industries should be provided with accommodation within established towns. The intent of centralising accommodation allows workers to contribute to and benefit from the local, social and economic opportunities that established towns provide.

The application submitted to the Shire, is intended to provide an accommodation facility that is integrated into the Onslow community. The integration is not strictly limited to the location of the development within the gazetted townsite; it is also providing local residents with additional facilities and opportunities to interact with the onsite workers. Similarly, the onsite workers have the ability to access to facilities and amenities within the existing Onslow townsite and can participate in community events and clubs within the town.

Importantly, section 3.1.4.1 of the Strategy states as follows:

*“The Shire is a strong advocate for workforce being in town, and this can be encouraged at a company level through the delivery of workforce accommodation in Onslow that is of a higher quality than in the campsites.”*

As above, the Strategy highlights the Shire’s strategic approach in encouraging the location of workers accommodation facilities within the Onslow townsite. The Strategy recognises the wide community benefits provided through the integration of workers accommodation into the townsite, rather than within strategic industrial areas or on the outskirts of town.

The use of the site for workers accommodation encourages the use of existing social, recreational and retail facilities to contribute to the economic growth of the town centre.

#### Shire of Ashburton Local Planning Scheme No. 7

The site falls within the municipality of the Shire of Ashburton, with the town planning control being guided by the Shire of Ashburton Local Planning Scheme No. 7 (**LPS 7**).

Part 1.6 of the Shire’s LPS7, designates a number of aims have been adopted by the Shire to provide the strategic basis for decisions made by the Local Government in accordance with the Scheme. Part 1.6 (m) identifies:

*(m) To facilitate the orderly development of Onslow Structure Plan.*

Point (m) of the Scheme Aims, identifies that the Local Government should facilitate the orderly development of the Onslow Structure Plan in its decisions.

#### *Land Use Permissibility*

The site is designated within the ‘Conservation, Recreation and Nature Landscape’ reservation pursuant to LPS 7. In accordance with clause 3.2.5 of LPS 7, the intent of the ‘Conservation, Recreation and Natural Landscapes’ reserve is as follows:

*1.1.5 The “Conservation, Recreation and Natural Landscapes” reserve is intended to accommodate a broad range of natural and modified land uses and development and may, subject to relevant approvals, include extractive or resource processing industry and infrastructure. Where applications for such development are considered by Local Government, it shall have regard for other legislation and/or the advice of the relevant landowner/manager.*

When considering applications for Development Approval for development within a Scheme reserve, the Shire is to have regard to the ultimate purpose intended of the reserve.

Consideration to the intent of the ‘Conservation, Recreation and Natural Landscapes’ reservation, and requirement of 3.2.6 of LPS7, the Applicant has provided an environmental survey by 360 Environmental, assessing the environmental significance of any pre-existing flora and fauna. The environmental considerations of the site are discussed further in the report.

### Onslow Townsite Expansion Structure Plan

The Onslow Townsite Expansion Structure Plan (Structure Plan) provides the statutory framework to facilitate the Shire's long-term strategic goal to provide accommodation for an additional 3,500 people, whilst remaining mindful of strategic opportunities and development principles which maximise future amenity outcomes for the Onslow townsite.

The Structure Plan took strategic direction from the then State Planning Strategy (1997) (later superseded by State Planning Strategy 2050), intending to minimise the 'detrimental' impact of fly in fly out resource development through enhancing the cohesiveness and overall functioning of the entire town.

The Structure Plan has planned for accommodation and facilities for the resources sector within the Onslow townsite. To guide and facilitate the intended development outcome, the objectives of the Structure Plan are as follows:

- *To provide a comprehensive master plan to facilitate the orderly and proper subdivision and development of the land to meet the anticipated growth demand in the town of Onslow.*
- *To create a sustainable and affordable urban area with a range of lot sizes and diversity of housing types and land for a second school site, public open space and drainage purposes.*
- *Recognise the logistical requirements of the Watson Drive Precinct and through good design, promote the integration of the village with the surrounding development.*

Having regard to the overarching intent and objectives of the Structure Plan, the Structure Plan provides for the furtherance of the principles established through the Shire's LPS7 and Local Planning Strategy particularly with respect to the location of workers accommodation within the townsite and the consideration of the associated community benefits.

The majority of the site is located within the boundaries of the defined Structure Plan and is designated as 'Area Subject to Further Investigation' Zone. The Structure Plan identifies within Section 4.1.6 that the intent of the area noted 'Subject to Further Investigation' is as follows:

*"To allow for further investigations and detailed design of these areas prior to any development occurring to determine what portions of the site are suitable for further development and what portions of the site should be protected due to significant heritage values."*

This identifies that the areas designated as 'Subject to Further Investigation', are required to undertake a suite of studies to identify the portions of the site are suitable for development and which portions of the site should be protected due to significant heritage value, prior to allowing further development to occur.

The documentation initially submitted with this application included:

- Environmental Reports consisting of but not limited to -
  - Flora and Fauna Studies
  - Hydrology

- Hydrogeology
- Acid Sulphate Soils
- Aboriginal Heritage
- Contamination
- Bushfire Impacts; and,
- Vehicle Movements; and,
- Servicing Requirements; and,
- Waste Management; and,
- Acoustic Impacts;

Subsequently, following a Request for Further Information (RFI), the following was provided:

- Request for Further Information Cover Letter; and
- Environmental Assessment Report -RFI Response; and
- Indicative Clearing Plan; and
- Renders; and
- Revised Site Plans; and
- Updated Traffic Impact Statement; and
- Peer reviewed updated Traffic Impact Statement

#### *Land Use Permissibility*

As outlined and proposed by the Applicant, the predominant use of this development is of a 'Transient Workforce Accommodation' nature, supported by additional facilities and infrastructure.

The proposed development consistent with the following listed uses and definitions within LPS 7:

***Transient Workforce Accommodation*** - *Dwellings intended for the temporary accommodation of transient workers and may be designed to allow transition to another use or may be designed as a permanent facility for transient workers and includes a contractors camp and dongas.*

***Recreation – Private*** – *land or buildings used for parks, gardens, playgrounds, sport arenas, or other grounds which are not usually open to the public without charge and includes health clubs, squash courts and other indoor sports facilities.*

***Entertainment Venue*** - *any land, buildings or structures used for the teaching, practice and performance of music, dance or theatre, the amusement or entertainment of the public with or without charge, with or without the serving of food or liquor and includes cinemas, theatres drive-in theatres, amusement parlours, nightclubs, taverns, bars or concert auditoriums.*

***Restaurant*** – *a building and any associated outbuildings and grounds where food is prepared for sale and consumption on the premises and includes cafes and coffee houses and may or may not be licensed to sell liquor.*

Land use permissibility shall generally be in accordance with the 'Land Use Permissibility' Table provided in the Structure Plan (see below), pursuant to Note 1 of LPS7.

LAND USE	PERMISSIBILITY
Transient Workforce Accommodation	D
Recreation – Private	A
Entertainment Venue	A
Restaurant	A

As identified, the abovementioned uses are capable of approval, following advertising and the Local Government exercising its discretion for development approval.

#### Local Planning Policy 13 (LPP13) - Transient Workforce Accommodation

Local Planning Policy 13 (LPP 13) establishes guidelines for the proposed development of Transient Workforce Accommodation camps within the Shire of Ashburton. The proposed development of Transient Workforce Accommodation on the proposed sites would fall under 'Type A' camps, as it is located within or in proximity to existing urban or resident populations.

An assessment of the proposed development by the Applicant against the provisions of LPP13 are contained within Part 5.1.3.1 of **Attachment 2**.

It is identified that the proposed development is in accordance with the requirements and provisions of LPP13, and has implemented a range of measures to increase the amenity provided to the occupants within the Onslow Village TWA and surrounding residents within Onslow.

#### Local Planning Policy 20 (LPP20) - Social Impact Assessment

LPP20 serves to provide guidance to the Applicant, Agencies and the Shire in consideration of both positive and negative social impacts in relation to proposed new development and extensions to existing developments. The application of LPP20 is triggered by a major project or development proposal and in accordance with the Shire's policy, due to the scale of the proposed development, the Shire requested that a social impact assessment (SIA) shall be completed and form part of the proposal.

In support of this development, the applicant has provided a Social Impact Statement (SIS) (**Attachment 3**) and an Economic Assessment (EA) (**Attachment 4**). The SIS identifies potential impacts and opportunities that may occur because of the construction of the proposed development, and subsequent mitigation measures to manage these potential impacts within the Shire.

The EA and SIS identify the impacts and benefits of the proposed development. A diverse range of qualitative economic, social, and environmental benefits and manageable impacts are identified within the EA and SIS. The considered total lifecycle of the proposed development provides opportunities for both short term utilisation and long-term viability for the site.

The SIS outlines opportunities to minimise impacts and maximise opportunities. It is expected that the Applicant will work with the Shire, State Agencies, BTAC and the Onslow community to implement recommendations and commitments under the SIS and EA. These include, but are not limited to; the creation of local jobs and new local business expenditure; enhanced support for community groups and events; assistance for the regional Ashburton and Onslow communities to be more sustainable; diversification of regional employment choices including new indigenous employment opportunities; and improved amenity enjoyed by residents.

### Environmental Values

The site is designated as 'Conservation, Recreation and Landscape within LPS7, and that in accordance with Part 3.2.6 of LPS7, an assessment of the environmental values of the site have been submitted with this application.

As part of this application the Applicant has submitted an on-site environmental survey by 360 Environmental, assessing the environmental significance of any pre-existing flora and fauna. The on-site investigations identified that the site is not identified as containing features that are of significance (i.e., threatened ecological communities or significant).

To ensure that the contents of the report submitted to the Shire was adequate, the report was externally peer reviewed (refer to **Attachment 5**) by Aurora Environmental.

It was identified that the validity of the Environmental Report undertaken by 360 Environmental was undertaken in a compliant manner. The review did however identify the following:

- It is not clear from the Environmental Assessment Report how much native vegetation will be cleared. It is important to quantify the extent of impacts i.e. how much vegetation is to be cleared for the development. The total area of clearing should be inclusive of bushfire management requirements.
- The Environmental Assessment Report does not address potential groundwater flow direction and whether adjacent potentially contaminating activities may have impacted groundwater beneath the site. Further investigations are warranted as per DWER guidelines, prior to the commencement of development on the site.
- Information presented in the Environmental Assessment Report is high level and lacks detail about the species that may occur on the site. For example, it is noted that *Lerista planiventralis maryani*, a Priority 1 listed reptile, has previously been recorded from near the site and that the site contains suitable habitat.
- Species listed as Marine left out. Strictly speaking, as the development is so close to the coast, impacts on marine shorebirds could be discussed in terms of impacts and potential mitigation.
- The report should quantify how much habitat will be cleared. The total area should include clearing requirements for bushfire management.
- Additional potential impacts to fauna from the development include:



- Attraction of feral/domestic animals (seeking food, or trying to access bins)
- Artificial lighting which may disrupt fauna behaviour patterns.

Clarification was also sought on this matter through a further information request and is discussed further in the report.

#### Traffic/ Site Access

The proposed development site is located at the northern end of the Onslow townsite, within walking distance of commercial and local community facilities. The site is bordered by Back Beach Road at the southern end, Onslow Road/Simpson Street, First Street and Third Avenue on the western end, and by the coastline along the remaining property boundary.

Onslow Road is a 2-lane undivided road, identified as a 'Primary Distributor Road' under the MRWA functional road hierarchy up to the intersection of Back Beach Road. Simpson Street is a continuation of Onslow Road into the townsite of Onslow and is classified as a 'Local Access Road'.

Most roads in the vicinity of the site are sealed roads. However, First Street west of Third Avenue and Third Avenue north of First Street have not been constructed.

The applicant provided a Traffic Impact Statement (TIS) prepared by Uloth & Associates dated 1 September 2021, which concludes that Third Avenue would need to be upgraded to a sealed standard.

The development is proposed to generate a minimum of 100 daily trips, consisting of 16 buses (12.5m Bus) shuttling workers to and from the site twice a day (shift changes) and a smaller number of ancillary vehicles making infrequent trips along the proposed – Third Avenue, Simpson Street and Onslow Road travel route. In addition, the utilisation of the facilities by the public, it is expected to generate approximately 850 vehicles per day.

This volume of traffic represents a significant increase in existing vehicle movements within Third Avenue and Simpson Streets. It is considered the proposed development will have a high impact on the surrounding land uses and transport networks.

Therefore, in accordance with the WAPC Transport Impact Assessment Guidelines it is considered the Traffic Impact Statement is not sufficient and as a minimum a Traffic Impact Assessment needs to be undertaken to determine whether Third Avenue or Back Beach Rd are the most appropriate access points.

Clarification was also sought on this matter through a further information request and is discussed further in the report.

#### Noise

The regulatory regime relating to noise control and management in Western Australia is established by the *Environmental Protection Act 1986* (EP Act) and, in particular, the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations).

The Noise Regulations set out the maximum permissible noise levels for land uses based on levels, frequency and matters such as impulsiveness and tonality. It is

generally accepted that land uses that will cause noise impacts on adjoining properties that exceed the maximum noise permitted by the Noise Regulations are not acceptable in the context of development control.

Noise generated from the site during the construction phase will mainly be generated by construction equipment. The officer suggests that a component of the 'Construction Management Plan' address noise and also specify that works where possible reduce noise impacts on neighbouring sensitive land uses.

Noise generated from the site during its operational phase will mainly be generated by the external areas of the restaurant, tavern and carpark facilities. An Acoustic Assessment undertaken by Stantec dated 25 August 2021(**Attachment 2(J)**), illustrates the proposed noise impacts of the development on the neighbouring allotments.

As stated within the report, the predictive noise assessment and noise management recommendations that have been provided to support the Development Application have been provided, with the aim of ensuring an appropriate level of acoustic amenity for future occupants.

The officer suggests that a Noise Compliant Register is incorporated as a component of the Operational Management Plan, and that any noise complaints received are forwarded to the Shire's Environmental Health Officers.

In addition to the above, the Applicant has not adequately addressed the impact that the noise generated by the nearby Onslow Salt operation will have on the sensitive land use component of the development.

Clarification was also sought on this matter through a further information request and is discussed further in the report.

#### Further Information Request

Following detailed assessment of the proposal and pursuant to clause 65A of Schedule 2 of the Planning and Development (Local Planning Schemes) Regulations 2015, a request to provide further information and documentation was sent to the applicant on 5 November 2021. The further information request from the Shire sought further clarity and information on the following concerns:

#### *Clearing of Vegetation*

*The submitted documentation including the Bushfire Management Plan (Attachment 5) and Environmental Report (Attachment 5), identify that clearing of natural vegetation is to occur on the site. However, the degree and amount of clearing is not clearly identified in the lodged documentation and associated plans with contradictions occurring between the above documents. Please provide a Clearing Plan that illustrates the areas of native vegetation on the site that is proposed to be cleared as part of this development (this includes areas to be cleared for APZ).*

### Applicants Response

As outlined within 360 Environmental's technical note provided at Attachment 2, the Bushfire Management Plan and Environmental Assessment Report identify that the clearing of natural vegetation will be required to enable to construction of Onslow Village. The exact areas of clearing were not included (by way of a clearing plan) within the abovementioned reporting as under Part V of the Environmental Protection Act 1986, a separate application for a Native Vegetation Clearing Permit ('NVCP') will be prepared and lodged with the Department of Water and Environmental Regulation ('DWER'). The NVCP Application will address clearing associated within the proposed development.

Notwithstanding, to assist the Shire understand the extent of clearing required for the purposes of the development application, please find enclosed an 'Indicative Clearing Plan' at **Attachment 7(C)** for the proposed development which identifies the following:

- The areas to be cleared with no exemptions as per the NVCP requirements (7.71ha);
- The areas to be cleared that are exempt as per the NVCP requirements (6.62ha); and
- The areas to be retained (6.13ha).

The Bushfire Management Plan ('BMP') also reflects the fire management measures applicable to clearing in the development site.

### Shire's Response

The information provided by the applicant has clarified the extent of the clearing. This matter is resolved.

### ***Traffic Impacts***

*It has been identified that the proposed volume of traffic entering the site at the proposed access point on Third Avenue may cause undue risks and congestion to the sensitive land uses along the proposed transport route.*

*The Shire's Infrastructure Team have provided the following comments:*

- *The access point to the development will be required to be from Back Beach Road. This will minimise the overall development traffic impact to the urban transport network and urban environment.*
- *All internal and external roads are required to be of a sealed surface (either asphalt or concrete) to minimise the impact of dust and erosion and ensure the assets level of service is maintained.*

*In addition to the above comments, the Shire requests, in accordance with Part 6.4 of the Vol. 4 of the WAPC - Transport Impact Assessment (TIA) Guidelines, that a Traffic Impact Assessment be submitted to the Shire for the development.*

*The TIA should address (but is not limited to):*

- *Transportation of FIFO staff to and from the site (flights);*

- *Quantify the proposed traffic movements along Third Avenue and Simpson Street and associated intersections.*
- *Impact on the nearby Onslow Primary School during school pick up and drop off;*

### Applicants Response

As outlined within the Schedule of Submissions, access to the Onslow Village is proposed via Simpson Street (which is an Arterial/Primary Distributor Road within the Onslow Townsite Expansion Structure Plan) and Third Avenue, which was identified as the preferred solution, considering a detailed review of alternative access options (i.e. Back Beach Road), affected by Aboriginal Heritage issues, risk of coastal inundation and impacts on overland flow of stormwater.

All internal roads will be sealed (i.e. asphalt or concrete) to the satisfaction of the Shire to minimise the impact of dust and erosion and maintained by the Applicant for the life of the development.

Also, Uloth and Associates has prepared an updated Traffic Impact Statement ('TIS') addressing the matters raised by the Shire and is provided at **Attachment 7(F)**. Shawmac (Civil and Traffic Consultancy) has also been engaged to undertake a peer review of Uloth and Associates' TIS and is provided at **Attachment 7(G)**. A summary of the TIS and Shawmac's peer review is outlined below:

- Transport to/from the Airport from the Village will occur 7 days per week, with staff from inbound flights arriving around 9am, and staff for outbound flights departing at around 4pm daily. Airport transfers will be serviced by one 22-seat bus plus one light vehicle for each flight, resulting in a total of 8 vehicle trips per day.
- The mining worksite will operate 24 hours per day, 7 days per week, with two 12-hour shifts each day. Of the 250 workforce, it is expected that 150 will work the day shift from 6 am to 6pm, with the remaining 100 working night shift from 6pm to 6am. On this basis, it is noted that the peak vehicle movement periods are outside of the peak movement periods for the school / surrounding road network.
- Based on industry-standard trip generation rates for 'High-turnover Sit-Down Restaurant' and 'Drinking Place' and, it is estimated that the external-use component of the proposed on-site facilities will generate a maximum of 50 vehicle trips (in and out combined) during the overall peak hour. This would typically translate to an estimated 550 vehicle trips per day under normal commercial operations. However, with the proposed restriction of public-use availability, it is estimated that the maximum flow of 50 vehicle trips accessing the site during the overall peak hour will translate to a maximum of approximately 250 vehicle trips per day.

### Shire's Response

According to the Western Australian Planning Commission (WAPC) the Transport Impact Assessment (TIA) guidelines were prepared to assist when undertaking and assessing transport impact assessments of land use development proposals.

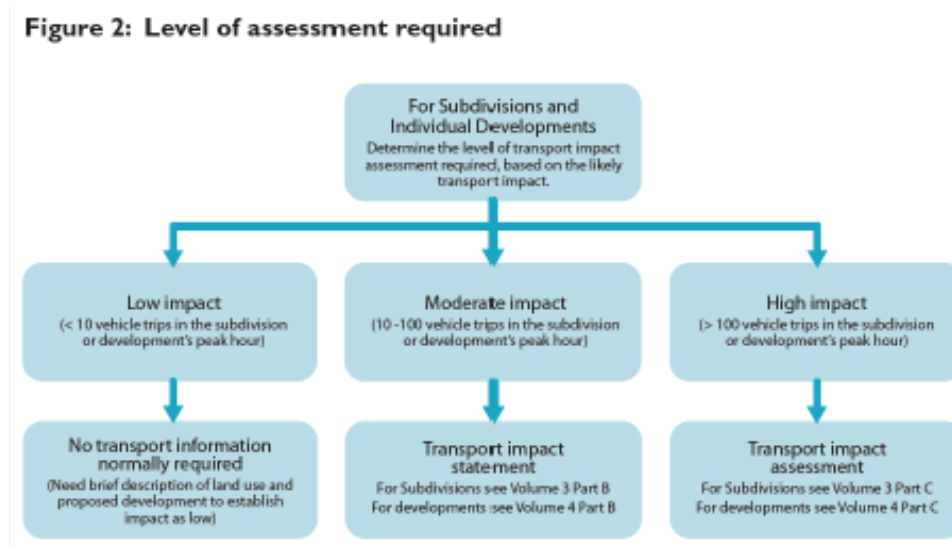
Whilst there are differing levels of assessment required the intent of a transport assessment is to clearly demonstrate to the approving authority that the development would:

- provide safe and efficient access for all modes;
- be well integrated with the surrounding land uses;
- not adversely impact on the surrounding land uses; and
- not adversely impact on the surrounding transport networks and the users of those networks.

It should also demonstrate that the proposed development is consistent with the transportation aspects of the structure and subdivision planning for the area.

The TIA guidelines have been structured to accommodate, and be used for, different stages of the planning and approval process. As such the TIA guidelines are organised into 5 stand-alone volumes, with relevant checklists in volumes 2-4.

Volume 4 of the guidelines is intended for use by transport planning professionals. It provides advice on the scale and content of the transport information that should be submitted to the approving authority in support of an individual development application. It also provides detailed technical advice on how to undertake the transport impact assessment (TIA).



**Figure 1: TIA Guidelines Level of Assessment**

**Transport Impact Assessment Guidelines Volume 4 – Individual Developments**

#### 6.4 Advice from approving authority

*While the level of assessment should generally be in accordance with these guidelines, it is recommended that the level required be confirmed by the approving authority.*

*Advice from the approving authority to proponents on the level of assessment required is to be given, and taken, on a 'without prejudice' basis. This does not preclude the approving authority requesting further information at its discretion.*

*This particularly applies to transport impact statements where the information provided may indicate that specific issues require more detailed assessment or that the impact is greater than initially anticipated and a more detailed TIA is required.*

*While this may result in a degree of uncertainty for the proponent, it is considered that some flexibility is required to allow approving authorities to ask for further information, when the preliminary assessment raises additional issues or concerns.*

*If approving authorities were to be bound by their initial advice on the level and extent of assessment and the parameters for the assessment, they would be likely to use a conservative approach. For example, they may ask for a larger study area just in case the impacts extend beyond what would normally be expected. This would result in unnecessary work for the proponent in many cases.*

*By allowing approving authorities some powers to request additional information after the initial assessment, it is considered that their initial requests for assessment will be more reasonable, thereby reducing the level of unnecessary work required to be undertaken by proponents.*

#### 6.5 Application of table

*The levels in **Table 1** are to be applied to the ultimate development so that the full potential impact is assessed. For large developments where staging is proposed, it may be appropriate to also assess each stage individually to determine when various aspects of transport infrastructure may be required. The level of assessment required is, however, to be determined by the size of the ultimate development.*

A traffic impact statement was prepared by Uloth and Associates to support the development application and following the further information request it was updated and peer reviewed by Shawmac (Civil and Traffic Consultancy) (**Attachment 7(G)**).

On each submission it was determined that the development was estimated to generate between 10 and 100 vehicle trips during any peak hour, and that a Traffic Impact Statement was considered appropriate.

The original TIS indicated that *"the proposed development will generate no more than perhaps 850 vehicles per day, which will have no significant impact on the surrounding road network"*.

The updated TIS then indicated that the development would have “a maximum occupancy of 250 minesite workers plus 50 village staff”.

The peer review prepared by Shawmac, identified the following:

*“The TIS does not indicate the likely post-development traffic volumes on the road network which is likely due to the limited availability of traffic count data in regional areas. The closest available count is on Onslow Road approximately 10km south of the town site where there was approximately 500 vehicles per day (vpd) in 2019. The daily traffic volumes on the roads within the townsite are likely to be lower than 500 vpd”.*

The further information request for a TIA to be prepared was to essentially understand the impacts the development would have on all sections of road, where the development traffic would be likely to increase traffic on any lane by more than 100 vehicles per hour and all intersections where flows on any leg would increase by 10 per cent, or any movement by 20 per cent. The following concerns still remain despite the request for further information:

- The traffic impact statement, subsequent update and peer review fail to consider the full extent of traffic impacts the development will have on the locality.
- In accordance with Transport Impact Assessment Guidelines the full potential impact of the development needs to be assessed. According to the TIS prepared Uloth and Associates only 60% occupancy of the site has been assessed.
- The peer review also indicates that the likely post-development traffic volumes haven't been demonstrated.

It is considered that the outcome of the Traffic Impact Assessment will significantly alter Council's consideration of the proposal, which should not be supported until a full traffic impact assessment has been prepared. If the access point is amended consideration will need to be given to the amendment of the siting of development, for the upgrade of roads and how the development will integrate into the community. If the access point isn't amended the impact on the local road network will be quantified and Council will be able to consider upgrade requirements of the road network.

### **Bushfire Risk**

*It has been noted within the external agency response from the Department of Fire and Emergency Services (DFES), that modifications to the Bushfire Management Plan (BMP) are necessary to ensure it accurately identifies the bushfire risk and necessary mitigation measures.*

#### **1. Policy Measure 6.5 a) (ii) Preparation of a BAL contour map**

<b>Issue</b>	<b>Assessment</b>	<b>Action</b>
<b>Landscape Management Plan</b>	<i>The BMP is reliant on a Landscape Management Plan (LMP) to establish and maintain APZ's (identified in Figure 5 of the BMP) and remaining vegetated areas of</i>	<i>Modification to the BMP is required. Decision maker to be</i>

	<p><i>Plot 11 as managed to a low threat state, in accordance with AS3959.</i></p> <p><i>However, the submitted LMP does not reference APZ Schedule 1: Standards for Asset Protection Zones contained in the Guidelines, nor does it specify how excluded areas will achieve low threat status under AS3959. DFES recommends inconsistencies between the BMP and LMP are addressed to ensure the vegetated areas within the site are established and maintained in accordance with Schedule 1 of the Guidelines</i></p>	<p><i>satisfied that vegetation within the site is established and maintained in accordance with Schedule 1 of the Guidelines.</i></p>
<b>BAL Contour Map</b>	<p><i>DFES notes Figure 1 of the BMP (Development Plan) depicts a 15 metre wide separation distance between the project area boundary and proposed buildings. The BMP also states all proposed buildings are sited in BAL29 and below. However, Figure 4 of the BMP appears to depict buildings partially located in areas of BAL40, specifically, buildings located in the south western portion of the project area adjacent to Plot 2. DFES recommends any inconsistencies between Figure 1 and 4 are addressed to ensure the required 15 metre separation distance is achieved between Plot 2 and proposed buildings.</i></p>	<p><i>Modification to the BMP is required.</i></p> <p><i>Decision maker to be satisfied the required 15 metre separation distance can be achieved.</i></p>

## 2. Policy Measure 6.5 c) Compliance with the Bushfire Protection Criteria

<b>Element</b>	<b>Assessment</b>	<b>Action</b>
<b>Location, and Siting &amp; Design</b>	<p><b>A1.1 &amp; A2.1 – not demonstrated</b></p> <p><i>The BAL ratings cannot be validated for the reason(s) outlined in the above table.</i></p>	<p><i>Modification of the BMP required.</i></p> <p><i>The decision maker to be satisfied that compliance with Element 1 and Element 2 can be achieved.</i></p>
<b>Vehicular Access</b>	<p><b>A3.2 – not demonstrated</b></p> <p><i>The BMP states: The existing public roads sighted whilst travelling to the site appeared compliant with public road specifications of the Guidelines and will be sufficient for emergency egress or firefighter access to the site.</i></p>	<p><i>Modification to the BMP is required. The decision maker to be satisfied that compliance</i></p>



	<i>The BMP has not validated that the public road network meets the full technical requirements of the Guidelines.</i>	<i>with A3.2 can be achieved.</i>
<b>Vehicular Access</b>	<b>A3.5 – not demonstrated</b> <i>DFES considers the proposal to be of a scale that requires a private road network rather than a driveway. The proposal has the potential to accommodate up to 500 occupants. The private driveway should be upgraded to meet the technical requirements of column 1 Table 6 of the Guidelines. A3.5 is generally for use where a single house on a single lot is being proposed.</i>	<i>Modification to the BMP is required. The decision maker to be satisfied.</i>

<b>Issue</b>	<b>Assessment</b>	<b>Action</b>
<b>Bushfire Emergency Evacuation Plan (BEEP)</b>	<i>The referral has included a 'Bushfire Emergency Evacuation Plan' for the purposes of addressing the policy requirements. Consideration should be given to the Guidelines Section 5.5.2 'Developing a Bushfire Emergency Evacuation Plan'. This contains detail regarding what should be included in a BEEP and will ensure the appropriate content is detailed when finalising the BEEP to the satisfaction of the Shire.</i>	<i>Comment only.</i>

*Please provide an updated BMP and BEEP that addresses the requested modifications, as listed above.*

### Applicants Response

We understand that it has been noted within the external agency response from the Department of Fire and Emergency Services ('DFES'), that modifications to the BMP are necessary to accurately identify the bushfire risk and necessary mitigation measures. In this regard, we note that an updated BMP and Bushfire Emergency Evacuation Plan ('BEEP') have been prepared addressing the various matters raised by DFES and the Shire as outlined within 360 Environmental's technical note at **Attachment 2(C)**.

### Shire's Response

The information provided by the applicant satisfies the requirements for modifications to the Bushfire Management Plan (BMP). This matter is resolved.

### **Environment**

*The Environmental Assessment Report submitted as part of this application, has been reviewed and it has been identified that additional information is*

*required to undertake a full assessment of the environmental impacts of the development on the site.*

*The matters that need to be addressed include:*

- The Environmental Assessment Report does not address potential groundwater flow direction and whether adjacent potentially contaminating activities may have impacted groundwater beneath the site.*
- It is not clear from the Environmental Assessment Report how much native vegetation will be cleared. It is important to quantify the extent of impacts i.e. how much vegetation is to be cleared for the development. The total area of clearing should be inclusive of bushfire management requirements (as noted above).*
- The inclusion of species listed as 'Marine' and 'Shorebird' have not been included within the habitat assessments, given proximity of the site from the coast. Also likelihood of occurrence rating (high, medium and low) has not defined.*
- The Environmental Assessment Report notes that *Lerista planiventralis maryani* (P1), utilises dune habitat in the bioregion and records indicate that it historically occurred within 1 km of the site and that a targeted terrestrial vertebrate survey utilising pitfall traps would be required to assess its presence or absence in the site with greater certainty.*
- The inclusion of a Construction Environmental Management Plan (CEMP) as part of the development application.*
- Undertaking an Unexploded Ordinance (UXO) survey of the site prior to any works commencing on the site.*
- Undertaking a HAZMAT site survey, to ascertain if the site has been impacted by asbestos containing materials (ACM), asbestos fines (AF) or fibrous asbestos (FA) are present at the site.*
- Soil or groundwater investigations being undertaken at the site, to ascertain if off-site contamination from former fuel infrastructure located to the north has impacted the site and if possible remediation is required.*
- An Acid Sulphate Soil (ASS) Assessment needs to be undertaken to identify if the site designated as 'moderate to low risk of ASS' being present on the site is 'potential' or 'actual' ASS.*

*Please provide an updated Environmental Plan and associated documentation that addresses the above issues.*

### Applicants Response

Consistent with the above, 360 Environmental has also prepared a response to the various environmental matters within the technical note provided at **Attachment 7(B)** to this letter. In this regard, a summary of the responses to the various 'Environmental' matters raised by the Shire is provided below:

- The Environmental Assessment Report ('EAR') has been updated to include reference to the groundwater flow direction (refer to Section 3.5.1 of the EAR) and is further detailed within the Urban Water Management Plan ('UWMP'). - As outlined above, 360 Environmental has prepared an 'Indicative Clearing Plan' applicable to the proposed development.

- An additional desktop assessment has been undertaken to address the presence and significance of 'Marine' and 'Shorebirds' and is outlined in Section 3.10.1 of the EAR, including the likelihood of occurrence rating. The DWER requirements for these Targeted Survey's shall be undertaken between the months of September and April. The Targeted Surveys can be fulfilled as a condition of development approval for the proposed development.
- A Targeted Terrestrial Vertebrae Survey may be necessary to determine the presence and significance of the *Lerista planiventralis maryani* species. The DWER requirements for this Targeted Survey shall be undertaken between September and April. As above, the Targeted Survey can be fulfilled as a condition of development approval for the proposed development.
- As outlined within the EAR, the purpose of a Construction Environmental Management Plan ('CEMP') is to manage and mitigate those construction and development works that may impact on the existing environmental conditions of the site. A CEMP is generally warranted during the construction phase and can be fulfilled as a condition of development approval. Notwithstanding, the EAR sufficiently addresses those existing environmental conditions and associated environmental assessments, investigations and/or relevant approvals.
- The EAR (Section 4.7.3) and Desktop Contamination Assessment highlighted that an Unexploded Ordinance (UXO) survey of the site would be required prior to any works commencing on the site. It is recommended that this matter can be fulfilled as a development condition applicable to the proposed development.
- The EAR (Section 4.7.3) and Desktop Contamination Assessment highlighted that a HAZMAT site survey would be required to confirm whether the site is impacted by ACM, AF, and FA. It is recommended that this matter can be fulfilled as a development condition applicable to the proposed development.
- The EAR (Section 4.7.3) and Desktop Contamination Assessment identified that further soil and groundwater investigations may be required to confirm whether contamination from the former fuel infrastructure has impacted the site. The risk has been considered low of offsite impacts. However, a Detailed Site investigation would address this. This is a separate process to the development application process and should be addressed accordingly.
- The EAR (Section 4.6.3) identified that a Self ASS Self-Assessment would be required to be undertaken to determine the 'potential' or 'actual' presence of ASS on the site. It is recommended that this matter can be fulfilled as a condition of development approval applicable to the proposed development. This is a separate process to the development application process and should be addressed accordingly.

With respect to the above, the EAR and supporting technical note address the environmental considerations raised by the Shire. It is recommended that all the environmental considerations raised within the Shire's RFI can be adequately addressed as conditions of development approval.

### Shire's Response

The environmental assessment report indicates that the following additional specialist studies are required to be undertaken prior to determining the developable areas of the site:

- A Targeted Survey's to determine the presence and significance of 'Marine' and 'Shorebirds'.
- A Targeted Terrestrial Vertebrae Survey to determine the presence and significance of the *Lerista planiventralis maryani*, a Priority 1 listed reptile.
- A Construction Environmental Management Plan ('CEMP') cannot be undertaken until the existing environmental conditions of the site.
- Unexploded Ordinance (UXO) survey of the site will be required.
- A HAZMAT site survey is required to confirm whether asbestos containing materials (ACM), asbestos fines (AF) or fibrous asbestos (FA) are present at the site.
- A Self ASS Self-Assessment would be required to be undertaken to determine the 'potential' or 'actual' presence of ASS on the site.

The site is currently reserved designated within the 'Conservation, Recreation and Nature Landscape' reservation and as such it is considered appropriate that these are carried out prior to support being granted for the development. As the outcomes of the assessment can significantly alter the design and layout of the development.

### **Onslow Salt**

*The Acoustic Report submitted with the application does not address any of the existing noise impacts that affect the site. It is recognised that the proximity of the site to Onslow Salt's port operations may adversely affect the site's sensitive land uses (Accommodation Pods).*

*Please provide an updated acoustic report that identifies and addresses the impacts of the Onslow Salt operation and any other existing noise generating land uses that are located within close proximity to the development.*

### Applicants Response

The Acoustic Report prepared by Stantec that was submitted as part of our Development Application, has considered the existing Acoustic Environment and impact from Onslow Salt, and specifically assessed the impact from Onslow Salt on the proposed accommodation pods. In this regard, it is noted that Section 3 'Acoustic Environment' and Section 4 'Noise Intrusion' of the Acoustic Report outline the assessment undertaken and provides various noise attenuation measures (i.e. external wall materials, external glazing, and roof construction materials).

An assessment may need to be calibrated using onsite noise measurements during the design development process, if deemed necessary by the acoustic engineer. Further, the design of the accommodation pods will ensure the internal noise levels accord with Australian Standard AS2107:2016.

Notwithstanding, the Applicant also notes the following:

- Lot 300 is surrounded by existing residential properties that are in similar proximity to the Onslow Salt Operations, with several residences within closer proximity than the location of the accommodation pods; and
- Lot 300 has a similar proximity to the Onslow Salt site to Development WA's 'Barrarda Onslow' residential development. In this regard, it is noted that the 'Onslow Residential Design Guidelines' prepared by Development WA does not require, mandate or recommend any additional acoustic treatments for residential buildings to be constructed within the 'Barrarda Onslow' development.

### Shire's Response

The information provided by the applicant satisfies the requirement for consideration of offsite impacts by Onslow Salt potentially affecting the development. This matter is resolved.

### ***Fencing***

*The Shire requests further clarification around the design, materials of the proposed fencing elements on the site.*

*Please provide a Fencing Plan for the development, illustrating the areas proposed to be fenced, including the proposed design, materials and height.*

### Applicants Response

The Applicant has advised that there is no fencing proposed to be erected around the Onslow Village. Notwithstanding, there will be a standard boom gate entry from Third Avenue to maintain security / control traffic movement between certain hours.

On this basis, no fencing plan has been provided as part of this response.

### Shire's Response

The information provided by the applicant has clarified the disparity of information within the report. This matter is resolved.

### **Conclusion:**

The subject site is identified in the Onslow Townsite Expansion Structure Plan as being an area designated as 'Subject to Further Investigation'. It is a requirement that further studies are undertaken to determine what portions of the site are suitable for development. The development proposal does not address these concerns or satisfy the requirement of these studies being undertaken.

The potential presence of *Lerista planiventralis maryani* remains unresolved. The Report states that if the species were present, the clearing will have a significant impact

upon the local population of the species. In addition, the following studies still need to be undertaken:

- A Targeted Survey's to determine the presence and significance of 'Marine' and 'Shorebirds'
- A Targeted Terrestrial Vertebrae Survey to determine the presence and significance of the *Lerista planiventralis maryani*, a Priority 1 listed reptile.
- A Construction Environmental Management Plan ('CEMP') cannot be undertaken until the existing environmental conditions of the site
- Unexploded Ordinance (UXO) survey of the site will be required
- A HAZMAT site survey is required to confirm whether asbestos containing materials (ACM), asbestos fines (AF) or fibrous asbestos (FA) are present at the site
- A Self ASS Self-Assessment would be required to be undertaken to determine the 'potential' or 'actual' presence of ASS on the site.

The following traffic impact concerns still remain despite the request for further information:

- The traffic impact statement, subsequent update and peer review fail to consider the full extent of traffic impacts the development will have on the locality.
- In accordance with Transport Impact Assessment Guidelines the full potential impact of the development needs to be assessed. According to the TIS prepared Uloth and Associates only 60% occupancy of the site has been assessed.
- The peer review also indicates that the likely post-development traffic volumes haven't been demonstrated.

Whilst the proposed use is considered to be in keeping with the requirements of the Scheme, State and Local Planning Policies, the proposal hasn't demonstrated how it will be developed in a manner that is compatible with the surrounding area. As such, it is recommended that the application not be supported.



**13.2C - DAP Application – DAP/21/02078 -Da 21-67 | L300 Back Beach Road,  
Onslow - Transient Workforce Accommodation (500 Persons)**

15 September 2021

Adrian Dhue  
Town Planner  
Rowe Group  
Level 3  
369 Newcastle Street  
Northbridge WA 6003

**Re: Social Impact Statement - Transient Workforce Accommodation - ONSLOW**

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Dear Adrian,

Please find attached the final Social Impact Statement (SIS) prepared for the proposed Onslow Village Transient Workforce Accommodation (Onslow Village).

If you require any further information, please do not hesitate to contact me on 0434 583 580.

Yours sincerely



**Amanda Micallef**  
Social Planner  
[amicalleg@emmconsulting.com.au](mailto:amicalleg@emmconsulting.com.au)



## 1 Introduction

EMM Consulting Pty Ltd (EMM) has been engaged by Rowe Group to investigate the potential social impacts and benefits of the development of a high-quality transient workers accommodation resort, herein referred to as the 'Onslow Village'.

Mineral Resources Limited (MRL) is the proposed developer of Lot 300 Back Beach Road, Onslow (Site), with the input of the Buurabalayji Thalanyji Aboriginal Corporation (BTAC), the determined Native Title holders of the Site. The Site is currently vacant and contains portions of remnant vegetation, in the form of shrubs.

This Social Impact Statement (SIS) has been prepared to support the Application for Development Approval (the Application), which seeks approval from the Regional Joint Development Assessment Panel (JDAP) for the development of Onslow Village.

The Site is located within the regional town of Onslow which forms part of the local government area of the Shire of Ashburton. The Site is situated approximately 300 m west of the centre of the Onslow Townsite and is bound by State owned 'Conservation, Recreation and Natural Landscape' reservation to the north and north-west (forming Sunrise and Sunset Beaches), Back Beach Road to the south-west and residential land uses to the south and east. Direct road frontage to the Site is provided by way of Back Beach Road to the south-west and Third Avenue, extending north beyond the intersection with First Street, to the east.

The Onslow Village comprises:

- 143 Accommodation Pods comprising of 500 beds;
- publicly accessing restaurant and tavern;
- a health and wellbeing centre including:
  - gymnasium;
  - pool;
  - multi-purpose sports court (ie tennis and basketball);
  - indoor / outdoor sports grounds; and
  - golf putting green / indoor driving range;
- an administration centre;
- areas of high quality communal open space / landscaping, incorporating a viewing platform towards key views; and
- other ancillary facilities.

The Onslow Village will provide much needed, high-quality transient workers accommodation. The use of the Site for the proposal is consistent with the Shire's strategic planning framework which identifies the potential under provision workers' accommodation, concluding that high-quality accommodation ought to be provided within the Onslow Village.

This SIS sets addresses the potential social impacts and benefits of the Onslow Village to assist the Shire of Ashburton and JDAP to assess and determine the proposal.

## 2 Determining level of impact

An assessment of the development of Onslow Village to determine the level of social impact was conducted using the impact matrix shown in Table 2.1.

**Table 2.1 Impact matrix**

Assessment criteria	Neutral (neither positive or negative)	Minor (positive or negative)	Moderate (positive or negative)	Significant (positive or negative)
Degree of change likely to arise from development relative to existing circumstances	Insignificant/No change	Some change, low significance	Some change, moderate significance	High level of change

**Table 2.1** Impact matrix

Assessment criteria	Neutral (neither positive or negative)	Minor (positive or negative)	Moderate (positive or negative)	Significant (positive or negative)
The number and nature of people affected	None	Immediate neighbours only (small number)	Suburb level impact (100+ people)	LGA wide impact, substantial impact on a large number of people/groups
Direct or indirect impact	No impact	Indirect impact	Some direct impact	Direct impact
Duration of impact	N/A	During construction phase only	1 – 12 months	12 months or more
Community perception that a development will cause significant negative social impacts	None	Low level of reaction from the people affected	Moderate level of reaction from the people affected and/or wider community	High level reaction from the people affected and/or wider community
Potential cumulative impacts	Insignificant/None	Low likelihood of increase in overall impacts in the locality	Moderate likelihood of increase in overall impacts in the locality	High likelihood of increase in overall impacts in the locality

## 2.1 LPP20 Social Impact Assessment

This SIS has been prepared in accordance with the preparation requirements outlined in the Local Planning Policy – LPP20 Social Impact Assessment (LPP20) (Shire of Ashburton 2013). This SIS seeks to address matters outlined in Clauses 6.5(b) ‘Social Impact’ and 6.5(e) ‘Cultural Impact’ of the LPP20. The technical assessments provided within the Onslow Village Application for Development Approval (Rowe Group 2021) which address section 6.5(a) ‘Economic Impact’, 6.5(c) ‘Transport Issues’, 6.5(d) ‘Ecological Impact’, and 6.5(f) ‘Any other relevant considerations’ of the LPP20 have also been considered and interpreted to assess the potential for social impacts related to the Project. This social impact assessment has been informed by the various technical reports that have been included in the *Application for Development Approval: Onslow Village* (Rowe Group 2021) in order to consider the matters relevant to any potential social impacts for local community. Technical studies which have informed this assessment include:

- Environmental Assessment Report (Attachment 3 of the *Application for Development Approval*);
- Traffic Impact Assessment (Attachment 9 of the *Application for Development Approval*);
- Landscaping Plans (Attachment 8 of the *Application for Development Approval*);
- Acoustic Assessment (Attachment 10 of the *Application for Development Approval*); and
- Economic Impact Assessment (Macroplan 2021).

Table 2.2 correlates the requirements outlined in the LPP20 and this SIS.

**Table 2.2** LPP20 assessment matters for the SIS

Assessment requirement from LPP20	Section of SIS where addressed
<b>6.5(b) Social Impact</b>	Table 3.1 Assessment of impacts
• Benefits to existing community services	3.4 Community and Recreation services/facilities
• Impact on existing community facilities	3.4 Community and Recreation services/facilities
• Provision of affordable housing	3.2 Housing
• Impact on quality of life	3.6 Community Identity and Sense of Belonging 3.7 Health and Well-being 3.9 Local Economy and Employment Opportunities 3.10 Needs of Specific Population Groups 3.11 Impact on amenity of place and surroundings
• Provision of useable open space	3.4 Community and Recreation Services/ Facilities 3.11 Impact on amenity of place and surroundings

**Table 2.2 LPP20 assessment matters for the SIS**

<b>Assessment requirement from LPP20</b>	<b>Section of SIS where addressed</b>
• Stakeholder and community consultation required	3.4 Community and Recreation Services/ Facilities 3.5 Cultural and Community Significance
• Long term costs and benefits to the community	3.1 Population Change 3.2 Housing 3.4 Community and Recreation Services/ Facilities 3.5 Cultural and Community Significance 3.6 Community Identity and Sense of Belonging 3.9 Local Economy and Employment Opportunities 3.10 Needs of Specific Population Groups 3.11 Impact on amenity of place and surroundings
• Requirements for additional facilities	3.2 Housing 3.4 Community and Recreation Services/ Facilities
• Access to resources	3.4 Community and Recreation Services/ Facilities 3.9 Local Economy and Employment Opportunities
• Impact on community safety, security and social amenity	3.8 Crime and Safety 3.6 Community Identity and Sense of Belonging
• Noise and acoustic impacts	3.11 Impact on amenity of place and surroundings
• Visual assessment impacts	3.11 Impact on amenity of place and surroundings
<b>6.5(e) Cultural Impact</b>	3.5 Cultural and Community Significance
• Impact on local character, amenity and ‘sense of place’	3.6 Community Identity and Sense of Belonging 3.11 Impact on amenity of place and surroundings
• Impact on historic and cultural landscapes	3.5 Cultural and Community Significance
• Form partnerships with community	3.6 Community Identity and Sense of Belonging 3.9 Local Economy and Employment Opportunities 3.10 Needs of Specific Population Groups
• Impact on attractions of the area	3.4 Community and Recreation Services/ Facilities 3.11 Impact on amenity of place and surroundings
• Impact on places of heritage significance, both indigenous and post European settlement	3.5 Cultural and Community Significance

### 2.1.1 Stakeholders and community consultation

Community consultation to date includes negotiations with the Registered Native Title Holder, BTAC, whereby permission to submit the development application has been granted (Rowe Group 2021). BTAC are currently undertaking a ‘self-assessment’ heritage survey to assess the areas of significant cultural heritage, which will contribute to the ongoing engagement between the proponent and BTAC. Additionally, MRL presented the Onslow Village development plans to a community forum on August 16, 2021. However, the engagement materials considered at the time of this social impact assessment were not inclusive of any consultation data, hence the assessment has been based on professional expertise and the planned development activities. The opportunity for further public comment on the development application and a formal community consultation process is anticipated to commence on September 16, 2021.

This SIS has been informed by the Project information and the technical knowledge and expertise of qualified social assessment practitioners. The information considered has been sourced from the Application for Development Approval: Onslow Village (Rowe Group 2021), technical assessments, and Ashburton Shire Council planning policies. This SIS has considered the Project information and conducted an assessment by drawing on the practitioner’s experience and understanding of the potential positive and negative social impacts which have arisen in other projects of a similar nature.

### 3 Social Impact Assessment

#### 3.1 Summary of impacts identified

##### Positive impacts:

The development of the Onslow Village adjacent to the townsite of Onslow is anticipated to have various positive impacts for the local area. The construction and operation phases of the development have the potential to provide employment opportunities for local residents, with workers potentially contributing to a flow-on effect of increased business for local food and retail outlets. Onslow Village, once developed, will accommodate up to 500 persons employed by large-scale resource projects, addressing the need for additional accommodation in the Shire of Ashburton, while stabilising the demand on local housing in the longer term. The location and design of Onslow Village to facilitate integration with the established community will likely spread economic benefits through to businesses and services in the Onslow townsite through local spending by the transient workforce on daily activities and local goods. In addition, the shared recreational facilities within the Onslow Village will assist in contributing to positive social outcomes by creating a sense of belonging for the workforce in the community and providing more opportunities for the existing community to engage in recreational activities. The Onslow Village design also enhances the location and surroundings of the site by maximising the topography of the landscape and viewpoints, while providing facilities for the community to better enjoy the amenity and surroundings of the site. Finally, the incorporation of health and wellness facilities and outdoor recreational spaces will facilitate social integration and provide positive physical and mental health benefits to the transient workforce residents.

##### Negative impacts:

The negative impacts associated with the development of the Onslow Village are minimal where the appropriate measures to avoid, reduce, or mitigate impacts are considered and engaged. The population increase of up to 500 persons in the local area once Onslow Village is in operation has the potential to create an increase in demand on community and specialist medical services in Onslow if the service supply of the Onslow Village medical centre does not meet the demand created by the transient workforce, which may have negative implications if the established community's access to services is strained. There is also the potential for negative social impacts to arise among the Native Title Holders considering the presence of culturally significant sites within the development footprint. However, the 'self-assessment' heritage survey and ongoing consultation with the BTAC are anticipated to mitigate and manage potential impacts. Finally, the one-year construction phase of the Village has the potential to create minor short-term negative social impacts related to the amenity of the site due to disturbances from increased traffic, heavy machinery, dust and noise during construction.

#### 3.2 Assessment of impacts

**Table 3.1** Assessment of impacts

##### 3.1 Population Change

Will the development result in significant change/s to the local area's population (either permanently and/or temporarily)?

**Yes** ✖ **If yes, briefly describe how the development will impact on population change below**

**No** ☐ **Positive impacts:**

Upon completion of the Onslow Village facility there will be accommodation capacity for up to 500 workers to reside in Onslow town/suburb while assisting in mining operations within the region. Given that in 2016, there was a total population of 857 in Onslow State Suburb Classification (SSC) (ABS 2016), the addition of up to 500 may present a significant increase in the local population. The location of the Project site is supportive of the Shire of Ashburton Local Planning Strategy which promotes the development of extractive industries' workforce accommodation in already established towns (such as Onslow) so that workers can contribute to and benefit from the local socio-economic opportunities in the town.

Overall, the increase in population of up to 500 persons residing in Onslow Village can be anticipated to have a moderate to significant positive social impact on the suburb of Onslow/ Onslow townsite.

**Negative impacts:**

No negative impacts associated with population increase have been identified.

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts resulting from population change:**

### 3.2 Housing

Will the proposal result in a positive or negative impact on the availability and affordability of housing in the locality/and/or Shire?

Yes  **If yes, briefly describe how the development will impact on housing below**

No  **Positive impacts:**

According to the *Onslow Town Resort Economic Assessment* (Macroplan 2021), provisioning a sufficient supply of workforce accommodation can reduce the sudden and intense demands on accommodation often associated with large-scale resource projects, often referred to as the 'boom-and-bust' housing price cycle. A potential indirect impact of the Onslow Village may be a more stable and reliable housing market, which will be less prone to the effects of rapid changes in the demand, availability, and affordability of housing in the local community.

The development of Onslow Village will satisfy The Shire of Ashburton's Local Planning Strategy incentive to 'advocate for long-term development in the townsite for workforce accommodation...(recognising) that future industry upturns could trigger a rise in housing demand' (Shire of Ashburton 2018).

Additionally, the Project will contribute towards the Shire's long-term strategic goal to provide accommodation for an additional 3,500 people identified in the *Onslow Townsite Expansion Structure Plan* (Shire of Ashburton 2016).

Overall, the Project is likely to have a significant positive impact on the availability and affordability of housing within Onslow and the Ashburton Shire.

**Negative impacts:**

No negative impacts on housing have been identified.

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts resulting from housing availability:**

### 3.3 Accessibility

Will the development improve or reduce physical access to and from places, spaces and transport?

Yes  **If yes, briefly describe how the development will impact on accessibility below**

No  **Positive impacts:**

**Negative impacts:**

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts resulting from physical access:**

### 3.4 Community and Recreation Services/Facilities

Will the development increase, decrease or change the demand or need for community, cultural and recreation services and facilities?

Yes  **If yes, briefly describe how the development will impact on the demand for community and recreation services and/or facilities.**

No  **Positive impacts:**

The Onslow Village development proposes to build additional community and recreational services and facilities for access by both residents at the site and the local community. The project will provide reciprocal benefits to the established town and community through the development of a restaurant, tavern, wellness facilities, community parks, coffee outlets, a pool, gym, and more recreational sporting facilities.

Overall, the food and beverage precinct and health and wellbeing precinct to be developed as part of Onslow Village can be anticipated to create a moderate-significant positive impact through broader

recreational opportunities and facilities accessible to the transient workforce and the established community of Onslow.

**Negative impacts:**

The increase in population resulting from construction activities, or when Onslow Village is in operation and housing up to 500 additional people, has the potential to create an increase in the demand on community and specialist medical services in Onslow townsite. The development design includes a medical centre to address the needs of the transient workforce, however, if supply does not meet demand of the residents, there could potentially be an overflow of service needs into the established Onslow community. Where there is limited capacity and an increased demand for essential or specialist services, the potential for negative social impact arises if the existing community's access to services may be impacted.

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts on community and recreation services and/or facilities:**

Uphold commitments to recreational facilities as open and accessible to the broader community and maintain clear communication regarding which facilities will be shared with the community.

Ensure that Onslow Village will provide an adequate supply of essential medical services within the proposed medical centre of the Onslow Village to address the needs (for first aid and General Practitioner access) of residents within the Onslow Village. It is also recommended that MRL liaise with Ashburton Shire Council and health service providers in Onslow during community consultation activities, so that any potential adequacy or supply issues related to community and specialist services can be identified and addressed.

### 3.5 Cultural and Community Significance

Is the development likely to impact on any items or places of cultural or community significance?

Yes  **If yes, briefly describe how the development will impact on items or places of cultural or community significance.**

No  **Positive impacts:**

**Negative impacts:**

The site for the proposed development is located within the Native Title Determination for the Thalanyji people. BTAC is the Registered native Title Body Corporate that holds those native title rights on trust for the Thalanyji people. There are three Registered Aboriginal Sites with mapped boundaries which partially or wholly overlap the Site (Department of Planning, Lands and Heritage), including:

Registered Aboriginal Heritage Site 8920 – Onslow 1;

Registered Aboriginal Site 6618 – Dew Talu; and

Registered Aboriginal Site 6617 – Burubarladji.

The presence of a Native Title Determination and the three significant aboriginal cultural sites on the proposed development lot has the potential to raise minor cultural social impacts.

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts on items or places of cultural or community significance:**

At the present stage, negotiations between MRL and BTAC have established consent for the Development Application for Onslow Village. The design and construction methodology for the proposed development has been informed by what is presently understood as the location of the most relevant Registered Site, the Dew Talu. Only facilities that enhance the cultural value of this area are proposed to be located within it. It is appropriate for MRL to continue their dialogue with BTAC as the design and construction progresses, in a view to manage any potential impacts on culturally significant areas. Furthermore, BTAC are currently undertaking a 'self-assessment' heritage survey to assess the areas of heritage significance. However, the possibility of opposition to the Project by the local indigenous community and BTAC must be monitored and considered throughout the approvals process. MRL should continue their engagement with BTAC to ensure consent is maintained throughout the application and development process, including reaching compensation agreements, where required, to mitigate and offset any social impacts on areas of cultural significance which may be related to the Onslow Village development.

### 3.6 Community Identity and Sense of Belonging

Is the development likely to increase or decrease opportunities, social interaction, or impact on community identity within and between communities?

Yes  **If yes, briefly describe how the development will impact on community identity and/or a sense of belonging in the locality/Shire.**

No  **Positive impacts:**

The design of the proposed development incorporates a range of facilities accessible to both residents and the wider community with the intention of facilitating greater integration of Onslow Village into the established community of Onslow. Given the central location of Onslow Village, workers residing at the site can easily access the town's services and recreational facilities, providing greater opportunities for social interaction and community cohesion. The location and accessibility of Onslow Village facilitates community integration, an objective outlined in the *Local Planning Strategy* (Shire of Ashburton 2018). The design of Onslow Village has kept in mind the reality that residents and users of the facility are likely to spend significant amounts of time at the site, therefore has intentionally incorporated various shared spaces to help build a sense of belonging and community among the residents.

The incorporation of publicly accessible spaces, including a restaurant/bar, tavern, entertainment, and recreational facilities, has the potential to have significant positive social impacts on the community and establish a more cohesive community identity by integrating the transient workforce with the more permanent community of Onslow.

**Negative impacts:**

No negative impacts related to community identity have been identified.

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts on community identity and/or a sense of belonging:**

### 3.7 Health and Well-being

Is the development likely to increase or reduce opportunities for healthy lifestyles, healthy pursuits, physical activity, and other forms of leisure activity?

Yes  **If yes, briefly describe how the development will impact on health and well-being.**

No  **Positive impacts:**

The proposed development has incorporated a site-wide 'wellness loop' with spaces for personal and communal activities, in addition to a wide range of facilities for residents in a health and wellbeing centre, including a gymnasium, pool, multi-purpose sporting courts, indoor and outdoor sporting grounds, and a driving range. These facilities will support residents at Onslow Village to maintain physically healthy lifestyle and engage in physical activity regularly. The intentional social integration with the townsite of Onslow and the communal spaces available for social interactions in the design of the Village also have the potential to positively impact the mental health and wellbeing of the transient workforce residents.

**Negative impacts:**

No negative social impacts related to health and wellbeing have been identified.

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts on health and well-being:**

### 3.8 Crime and Safety

Is the development likely to increase or reduce crime or safety in the community?

Yes  **If yes, briefly describe how the development will impact on crime and safety (including perceived) in the locality/Shire.**

No  **Positive impacts:**

The Project may have a positive social impact in reducing crime in the community, based on the assumption that a broader range of accessible communal and recreational facilities reduces boredom, and furthermore people's incentives to commit crimes in the local area.

**Negative impacts:**

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts on crime and safety (including perceived) in the locality/Shire:**

### 3.9 Local Economy and Employment Opportunities

Will the development increase or reduce the quantity and/or diversity of local employment opportunities (temporary or permanent)?

Yes  **If yes, briefly describe how the development will impact on the local economy and/or employment opportunities**

No  **Positive impacts:**

The location of the proposed development being adjacent to Onslow townsite will provide opportunity for the transient workforce residents of the village to access and enjoy services located within the town centre, creating flow-on benefits to established local businesses and the overall local economy. According to the *Onslow Town Resort Economic Assessment* (Macroplan 2021, p. 14), industry research suggests that up to 5% of salaried workers income who are living in the Transient Workforce Accommodation site and working nearby could be spent off-site in local businesses, leading to an approximate local spending injection of \$3.4m annually.

According to the *Onslow Town Resort Economic Assessment* (Macroplan 2021), direct and indirect employment opportunities throughout the construction and operational phases of the Project may include:

444 Full-time equivalent (FTE) jobs throughout the one-year construction period, including 190 local direct and 254 local indirect employment opportunities.

50 FTE jobs on an annual ongoing basis throughout the operational period of the Onslow Village site.

Employment opportunities will be diverse including management, administration staff, chefs, cooks, kitchen hands, cleaners, bar staff, security, IT professionals, and trades/maintenance staff.

Overall, the construction and operation of Onslow Village is likely to create significant positive social impacts through boosting the local economy and the creation of new employment opportunities. The population growth and new attraction of Onslow Village in the region may also encourage further long-term economic growth through the need to increase supply for a growing population and subsequent demand on services in the local area.

**Negative impacts:**

No negative social impacts on the local economy or employment opportunities have been identified.

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts on the local economy and/or employment opportunities:**

No negative impacts have been identified.

### 3.10 Needs of Specific Population Groups

Will the development impact on specific population groups including an increase or decrease in social, cultural, recreational, employment, governance, transport opportunities?

Yes  **If yes, briefly describe how the development will impact on the needs of specific groups in the community (please list these community groups and the impacts specific to these groups).**

No  **Positive impacts:**

The proposed development of Onslow Village is a direct response to the needs of the transient workforce for the mining, construction, and other industries in the local area. The Ashburton Shire Council *Local Planning Policy no. 13 – 'Transient Workforce Accommodation'* outlines the need for such facilities to sustain industry operations, however, the policy recognises the Council's opposition to fly-in fly-out (FIFO) mining practices due to the loss of economic and social value in traditional/remote accommodation camps (Shire of Ashburton 2013). The *Onslow Townsite Expansion Structure Plan* outlines the Shire's long-term strategic goal to increase accommodation availability in the area, with the intention to minimise the 'detrimental' impact of FIFO resource development through enhancing the social cohesiveness and integrated function of the Transient Workforce Accommodation and the established town (Shire of Ashburton, 2016). In this respect, the project will generate a positive social impact by addressing the needs of the Transient Workforce population group while ensuring outcomes that will benefit the broader community in alignment with the Council's aspirations.

**Negative impacts:**

No negative social impacts related to the needs of specific population groups have been identified.



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**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts on the local economy and/or employment opportunities:**

3.11 Impact on amenity of place and surroundings (pleasantness)

Will the development impact on the amenity or enjoyment of the area by the existing/future community?

Yes  **If yes, briefly describe how the development will impact on the amenity or enjoyment of the area.**

No  **Positive impacts:**

The design of the proposed Onslow Village development has taken into consideration the topography of the site, the landscape quality, the character of the established town, and strategic building form and scale to maximise the benefits of amenity and enjoyment of the site. The site is currently vacant and contains portions of remnant vegetation (shrubs). Hence, the development of communal dining and recreational spaces which maximise the site and viewpoints within the development of Onslow Village will likely provide greater opportunity for local residents to enjoy the location and its surroundings and furthermore, generate a positive social impact.

**Negative impacts:**

The development has the potential to create negative impacts relating to amenity of place and surroundings during the one-year construction phase of the Onslow Village facility. Standard construction activities often involve an increase in traffic and machinery, in addition to dust and noise for short increments of time during the construction period. Based on an assumption of standard construction activities, there is a potential to cause minor negative social impacts related to the amenity and enjoyment of the site for a short time period. However, the implementation of appropriate construction management plans will reduce and mitigate these potential social impacts to ensure they are minor or insignificant.

**Describe the proposed measures you will use (which may include social benefits) to avoid, reduce, or mitigate any negative impacts on the amenity or enjoyment of the area:**

It is recommended that standard industry practices adopted during construction activities to reduce and mitigate any potential negative impacts to amenity in consideration of the likelihood of dust, noise, and increased traffic. These are anticipated to mitigate and manage potential amenity impacts during the construction phase of the Project.

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## 4 Outcome of assessment

When applying the assessment criteria to the development of the Onslow Village facility, a broad range of moderate to significant positive impacts can be anticipated in relation to population change, housing, community and recreation services/facilities, community identity and sense of belonging, health and wellbeing, crime and safety, the local economy and employment, the needs of specific population groups, and the long-term amenity of place and surroundings. A few areas of consideration have the potential to create minor negative social impacts. These relate to a potential additional demand on medical services in the established community if the residents' needs are not met with adequate supply in the Onslow Village medical centre, the presence of culturally significant places, and the short-term impacts to amenity and surroundings during construction. However, if the recommended measures to avoid, reduce, or mitigate the potential negative social impacts are considered and applied, the likelihood of any negative social outcomes from the development of the Onslow Village facility will be significantly reduced.

## 5 References

ABS (Australian Bureau of Statistics) 2016, *2016 Census QuickStats*, viewed 9 September 2021, [https://quickstats.censusdata.abs.gov.au/census\\_services/getproduct/census/2016/quickstat/SSC51171](https://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/SSC51171)

Macroplan 2021, *Onslow Town Resort Economic assessment*, report prepared for Rowe Group.

Rowe Group 2021, *Application for Development Approval: Onslow Village*, prepared for Mineral Resources Limited by Rowe Group.

Shire of Ashburton 2013, *LPP13 Transient Workforce Accommodation*, viewed 10 September 2021, <https://www.ashburton.wa.gov.au/documents/192/lpp13-transient-workforce-accommodation>

Shire of Ashburton 2013, *LPP20 Social Impact Assessment*, viewed 10 September 2021, <https://www.ashburton.wa.gov.au/documents/199/lpp20-social-impact-assessment>

Shire of Ashburton 2016, *Onslow Townsite Expansion Structure Plan*, viewed 10 September 2021, [https://www.ashburton.wa.gov.au/Profiles/ashburton/Assets/ClientData/Documents/Town\\_Planning/Endorsed\\_Structure\\_Plan/Onslow\\_Townsite\\_Expansion\\_Structure\\_Plan\\_Report\\_Updated\\_April\\_2016\\_.pdf](https://www.ashburton.wa.gov.au/Profiles/ashburton/Assets/ClientData/Documents/Town_Planning/Endorsed_Structure_Plan/Onslow_Townsite_Expansion_Structure_Plan_Report_Updated_April_2016_.pdf)

Shire of Ashburton 2018, *Local Planning Strategy*, viewed 10 September 2021, <https://www.dplh.wa.gov.au/getmedia/ad50726a-c3ee-438c-bba1-c299ad0a4b6b/Shire-of-Ashburton-Local-Planning-Strategy-2021-Endorsed>



**13.2D - DAP Application – DAP/21/02078 -Da 21-67 | L300 Back Beach Road,  
Onslow - Transient Workforce Accommodation (500 Persons)**

# Onslow Village

## Economic assessment

PREPARED FOR Rowe Group

September 2021

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## Executive summary

Macroplan has been engaged by the Rowe Group to investigate the economic benefits of the construction of a 500-person Onslow Village which will become a permanent Onslow Village style accommodation facility to be constructed in Onslow in Western Australia. Key findings of Macroplan's analysis include the following quantitative and qualitative economic benefits:

### **Quantitative benefits**

#### Onslow Village construction phase employment outcomes (FTE's)

As a direct result of the construction of the Onslow Village, which is estimated to cost up to \$100 million, Macroplan estimates that 444FTE's will be created in the one-year construction phase. These include FTEs for 190 local direct and 254 indirect jobs.

#### Onslow Village operation phase employment outcomes (FTE's)

On an annual ongoing basis, Macroplan estimates that owing to the scale of the Onslow Village, in the order of 50 FTE jobs will be required to operate it.

The Onslow Village is expected to accommodate up to 500 persons. Their occupations will cover a broad range of positions including truck operator, apprenticeships, labourers, cleaners, construction workers, plumbers, electricians, roofers, trades assistants, riggers, IT professionals, plant and machinery operators and others.

Each year during the operational phase, the total wages generated on annual basis, will be in the order of 550 employees @ \$124,000 per annum or \$68.2m. Over a 30-year time horizon, without adjustment for inflation etc, that gives a total of approximately \$2.05b.

Macroplan research suggests that in the order of up to 5% of the income of the workers who are living and working in the Onslow Village could be spent off site in local business. Onslow's businesses could therefore expect a new annual spending injection in the order of approximately \$3.4m from the new workforce. This would likely include new spending for Onslow's offerings in food and beverage, entertainment, and recreational activities including fishing, sport and fitness etc.

### **Qualitative benefits**

#### Economic, social and environmental

A diverse range of qualitative economic, social and environmental benefits can be expected to be generated as a direct and indirect consequence of the proposed Onslow Village. These include but are not limited to the creation of local jobs and new local business expenditure; enhanced support for community groups and events; assistance for the regional Ashburton and Onslow communities to be more sustainable; diversification of regional employment choices including new indigenous employment opportunities; and improved amenity for residents. And over time, a more sophisticated tourism product offering for local and international markets.

### **Summary**

In the absence of Onslow Village as a catalyst, the significant set of benefits presented in this assessment will not materialise.

## Introduction

Macroplan has been engaged by the Rowe Group to investigate the economic benefits regarding the construction of a 500-person Onslow Village which will become a permanent Onslow Village style accommodation facility to be constructed in Onslow in Western Australia.

The capital cost of the Onslow Village is expected to be in the order of \$100 million.



## Section 1: Western Australia's economy

### 1.1 Overview of the Western Australia economy

Western Australia (WA) has an export-oriented economy, with the state accounting for 51% of the value of Australia's exports of goods in 2020. Western Australia's main trading partners are in Asia and its key exports are minerals, petroleum, agri-food and specialised manufactured goods, and importing machinery, transport equipment, other manufactured goods, refined petroleum oil, and gold for further refining and re-export. Whilst the State's economy is predominantly based on unprocessed primary products, WA has also maintained strength in services exports, primarily expenditure by international visitors and students in the State, as well as transport, business, and healthcare services.

In 2019-20, WA's Gross State Product (GSP) was \$316.3 billion, 15.9% of Australia's Gross Domestic Product (GDP), and equivalent to a GSP per capita of \$119,861 (54% above Australia's GDP per capita of \$77,807). WA's real GSP rose 1.4% in 2019-20, below growth of 1.6% in 2018-19 and compound annual growth of 3.2% over the past 10 years. In 2019-20, good-producing industries accounted for 56% (\$175.7 billion) of WA's GSP of which 'Mining' accounted for 43% (\$135.3 billion), followed by 'Construction' accounting for 5% (\$17.3 billion), 'Manufacturing' for 4% (\$12.9 billion) and 'Agriculture, Forestry and Fishing' for 2% (\$5.4 billion). Correspondingly, services industries accounted for 36% (\$113.3 billion) of GSP including 'Healthcare and Social Assistance' accounting for 5% (\$15.7 billion), 'Professional, Scientific and Technical Services' for 5% (\$15.1 billion) and 'Finance and Insurance' for 4% (\$11.6 billion). Dwelling ownership and other items such as net interstate trade and changes in inventories accounted for the remaining 9% of GSP in 2019-20. In terms of GSP growth, the mining industry made the largest contribution to WA's real GSP growth, with an estimated increase of 4.9%.

Like economies around the world, the pandemic has resulted in a weaker growth outlook. However, according to the Western Australia 2020-21 Budget Paper No. 3 (Economic and Fiscal Outlook), economic growth is anticipated to moderate in 2020-21 (see Table 1), with GSP projected to grow by a modest 1.25% (down from 2.5% forecast at the 2019-20 Mid-year Review), as restrictions are removed, migration eventually resumes, and confidence continues to improve.

**Table 1. Scenario forecasts, Western Australia, annual growth (%)**

	2019-20 actual	2020-21 Budget estimate	2020-21 Scenario estimate	Percentage point difference
State Final Demand	1.1	0.5	-2.25	-2.75
Gross State Product <sup>1</sup>	2.0	1.25	0.0	-1.25
Employment	0.3	-0.25	-2.5	-2.25
Unemployment Rate <sup>2</sup>	6.1	8.0	8.75	0.75

Source: Western Australia 2020-21 Budget Paper No. 3 (Economic and Fiscal Outlook),

<sup>1</sup> Estimated actual for 2019-20.

<sup>2</sup> Data expressed as annual average during the financial year.

## 1.2 Employment overview

### 1.2.1 Employment by industry

According to the latest ABS Census, Western Australia accommodated a total of 2,474,414 jobs as of 2016. Whilst the mining industry remains the largest contributor to economic output in WA, its employment base is much more diversified.

As illustrated in Table 2, at the time, the largest industry 'Health Care and Social Assistance', supported 135,898 of these jobs, equivalent to 5.5% of total jobs in the State. Of the remaining industries<sup>3</sup>, the next five largest employing industries were 'Construction' (4.6%), 'Retail Trade' (4.5%), 'Education and Training' (4.1%) and 'Accommodation and Food Services' (3%) and 'Professional, Scientific and Technical Services' (3.0%).

**Table 2. Number of jobs by industry, Western Australia, 2016**

Industry	Western Australia
Health Care and Social Assistance	135,898
Construction	113,457
Retail Trade	110,404
Education and Training	100,952
Accommodation and Food Services	74,624
Professional, Scientific and Technical Services	74,144
Mining	72,542
Public Administration and Safety	72,278
Manufacturing	64,543
Transport, Postal and Warehousing	53,133
Administrative and Support Services	37,954
Wholesale Trade	29,500
Agriculture, Forestry and Fishing	28,612
Financial and Insurance Services	27,242
Rental, Hiring and Real Estate Services	20,142
Arts and Recreation Services	18,464
Electricity, Gas, Water and Waste Services	13,385
Information Media and Telecommunications	11,449

Source: ABS (2016) & Macropian (2021)

### 1.2.1 Employment by occupation

According to the latest ABS Census, the largest occupation 'Professionals', supported 237, 229 jobs, equivalent to 9.6% of total jobs in the State. Of the remaining occupations<sup>4</sup>, the next four largest were 'Technicians and Trade Workers' (7.6%), 'Clerical and Administrative Workers' (6.1%), 'Managers' (5.6%) and 'Community and Person Service Workers' (5%).

<sup>3</sup> Excluding 'unclassified'

<sup>4</sup> Excluding 'unclassified'

**Table 3. Number of jobs by occupation (top 5 occupations), Western Australia, 2016**

Industry	Western Australia
Professionals	237,229
Technicians and Trades Workers	187,398
Clerical and Administrative Workers	150,406
Managers	139,350
Community and Personal Service Workers	122,890
Labourers	112,599
Clerical and Administrative Workers	150,406
Sales Workers	102,334
Machinery Operators and Drivers	86,392

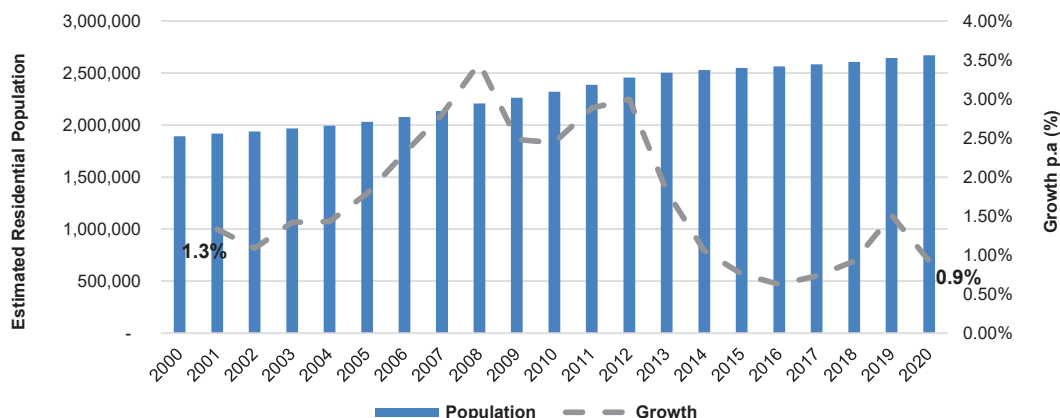
Source: ABS (2016) & Macropian (2021)

### 1.3 Historical population and population projections

#### 1.3.1 Historical Population

Over the past twenty years the population of Western Australia has experienced overall strong growth. From 2000 WA's population grew by 777,700 residents to reach 2,670,200 in 2020 (reflecting a total growth of 29%), equivalent to 10.4% of Australia's population. This reflects an average growth rate of 33,886 residents per annum, equivalent to a compound annual growth rate of 1.7%.

WA's population growth fell in 2020 due to the impact of COVID-19 on overseas migration. However, interstate migration made a positive contribution to population growth for the first time since 2013.

**Figure 2. Historical population growth, Western Australia 2000-2020**

Source: ABS Stat (2021) & Macropian (2021)

#### 1.3.2 Population Projections

The total population of Western Australia is expected to increase from 2,689,000 in 2021 to 2,893,400 in 2026, it is then expected to increase to 3,132,700 in 2031 and 3,370,100 in 2036. The total population is expected to grow at a rate of 1.5% between 2021-2026, 1.6% between 2026-2031 and 1.5% between 2031-2036. As it has in the past, population growth in the mid to long term future will be largely fuelled by natural increases and net overseas migration into WA.

In this short term (2021-2026), population growth will be dominated by the 65+ (elderly) and 35-44 (parents and self-sufficient) age cohorts, growing at 3.3% and 1.9% respectively per annum, followed by those aged 0-19 (youth), which will grow at 1.3% per annum.

**Table 4. Projected population, Western Australia, 2021-2036**

Age	2021	2026	2031	2036	Compound annual growth rate		
					(2021-2026)	(2026-2031)	(2031-2036)
0-19	686,642	732,861	773,729	819,766	1.3%	1.1%	1.2%
20-24	172,964	183,899	207,803	218,171	1.2%	2.5%	1.0%
25-34	388,040	404,350	440,922	479,626	0.8%	1.7%	1.7%
35-44	379,232	415,715	433,863	461,565	1.9%	0.9%	1.2%
45-54	343,580	350,131	388,131	430,613	0.4%	2.1%	2.1%
55-64	305,632	321,429	333,728	343,798	1.0%	0.8%	0.6%
65+	412,904	484,995	554,528	616,549	3.3%	2.7%	2.1%
<b>Total</b>	<b>2,688,994</b>	<b>2,893,380</b>	<b>3,132,704</b>	<b>3,370,088</b>	<b>1.5%</b>	<b>1.6%</b>	<b>1.5%</b>

Source: Department of Planning, Lands and Heritage (2021) & Macroplan (2021)

#### 1.4 Importance of tourism

In March 2021, Tourism Research Australia released the State Tourism Satellite Accounts (TSA) 2019-20, which outlines the economic contribution of tourism to each state and territory, in relation to the total Gross Value Added (GVA)<sup>5</sup>, Gross State Product (GSP)<sup>6</sup>, and employment. The key take-outs are:

- In March 2020 (year ending), 22.4 million daytrips were taken within the State and 11.6 million overnight (domestic and international) visitors came to or travelled within WA. Together, these visitors spent \$10.7 billion in the State.
- The WA tourism industry directly employs 65,800 people and accounts for a further 29,000 indirectly, making a total of 94,800 people in WA employed in the tourism industry. Tourism (direct + indirect) contributes 7.0% of WA's total employment. Over a third (35%) of people directly employed by tourism in WA are in the food and beverage sector, with a further 13% in the accommodation sector.
- The value of the WA tourism industry (direct + indirect) is \$9.5 billion by GVA, contributing 3.1% of the States GVA. The transport industry contributed most significantly to WA's direct tourism GVA, followed by travel agency and tour operator services and food & beverage outlets.
- This is the equivalent of \$10.5 billion by GSP, contributing 3.3% of WA's total GSP.
- Almost half (45%) of WA's direct tourism GVA was contributed by intrastate overnight travel, while international visitors accounted for almost one quarter. Interstate visitors contributed 19%, while daytrip visitors contributed 13%.

The project incorporates the provision of a 500-person permanent Onslow Village style accommodation and facilities, which will eventually be repurposed for tourism use and will therefore contribute to boost tourism to Onslow and the broader region generally. This is an important consideration as the re-use of the asset will assist to diversify the economic base of Western Australia and help to reduce the reliance on the exports of iron ore as a revenue stream and job generator.

<sup>5</sup> GVA is the labour income and capital revenue received by the industry from tourism and the net taxes government receives from production.

<sup>6</sup> GVA plus net taxes.

## Section 2: Onslow context

### 2.1 Regional context

Onslow is a small and remote coastal town situated in the Pilbara region of Western Australia within the Shire of Ashburton (Local Government Area). Onslow is located approximately 1,386 kilometres north of Perth. Other major towns within proximity to Onslow include Port Hedland (534 kilometres) and Carnarvon (493 kilometres). The main vehicular access road to Onslow is through Onslow Road (southerly access) which is linked through the Northwest Coastal Highway (northerly and southerly access) providing regional and national connectivity through the National Route 1 highway. Onslow is also accessible via plane through Onslow Airport which provides direct flight routes to Perth, Brisbane, Sydney, and Melbourne.

Onslow which can be surmised by its mixture of predominantly residential and industrial land uses, as well as small-scale retail offerings which service the local population. Onslow is well-supported by existing health infrastructure such as Onslow District Hospital and Silver Chain – Onslow Day Centre. Onslow is also well-supported by a range of recreational facilities, local parks, playgrounds, and other open space provisions including Onslow Community Garden, Onslow Sports Club and Wirlarra Park. There are currently no existing secondary or tertiary education facilities, however there are three facilities dedicated to early education/childcare including Onslow Primary School. In terms of retail offerings, Onslow is largely serviced by food, beverage, pharmacy, fuel and household goods along Second Avenue which includes Onslow Supermarket and Liquor Store, Postie's General Store and Onslow Pharmacy.

With respect to its unique natural landscape, Onslow is also a popular tourism destination. The town has very good waterfront coverage with its north-eastern boundary comprised of the Indian Ocean, whilst much of its south-eastern boundary is comprised of a major water inlet. Onslow also has good access to a range of natural features including various beaches (such as Sunrise Beach) bays (such as Breadon Bay), walking trails (such as The Onslow Heritage Trail) and various islands off its north-eastern coastline.

## 2.2 Socio-demographic snapshot

The below table outlines key socio-demographic trends within Onslow and Ashburton LGA.

**Table 5. Socio-demographics, Onslow and Ashburton LGA, 2016**

	Onslow	Ashburton LGA
Census Population	857	13,026
<b>Age Distribution (%)</b>		
0-19	19.1%	15.1%
20-34	24.1%	30.8%
35-54	31.9%	41.9%
55-64	18.1%	10.4%
65-74	4.2%	1.5%
75-84	2.2%	0.2%
85+	0.3%	0.1%
<b>Median Age</b>	39	36
<b>Birthplace (%)</b>		
Australian	74.8%	67.9%
Overseas	17.3%	20.2%
<b>Household Composition (% of households)</b>		
Couples with no children	33.0%	24.2%
Couples with children	21.9%	40.9%
One parent family	8.2%	7.1%
Other families	2.9%	0.9%
Lone person	22.9%	17.9%
Another household	13.4%	9.2%
<b>Average household size</b>	2.3	2.7
<b>Average household income (weekly)</b>	\$2,200	\$2,456
<b>Housing Structure (% of dwellings)</b>		
Separate house	49.1%	60.6%
Semi-detached, row or terrace house, townhouse	3.6%	5.5%
Flat, unit or apartment	6.1%	2.1%

Source: ABS (2016) & Macroplan (2021)

## 2.3 Employment by industry

According to the latest ABS Census, Onslow residents accommodated a total of 442 jobs as of 2016, whilst the wider Ashburton LGA accommodated a total of 8,305 jobs. Overall Onslow maintains a strong employment base, reflected through a full-time employment status of 75.4% - 18.5% higher than the WA average of 57%<sup>7</sup>.

As illustrated in Table 6 at the time, looking at Onslow, the largest industry 'Mining', supported 97 of these jobs, equivalent to 21.9% of total jobs in the town. Of the remaining industries, the next five largest employing industries

<sup>7</sup> Does not factor in part-time employment

were 'Construction' (17.2%), 'Accommodation and Food Services' (8.4%), 'Public Administration and Safety' (7.7%), 'Transport, Postal and Warehousing' (7%) and Education and Training (5.9%).

As evidenced in the below table, Onslow currently contains a small local labour force. The project has potential to contribute to a more sustainable and diversified employment outcome, resultant from an increase in jobs stemming from the Onslow Village.

**Table 6. Number of jobs by industry, Onslow and Ashburton LGA, 2016**

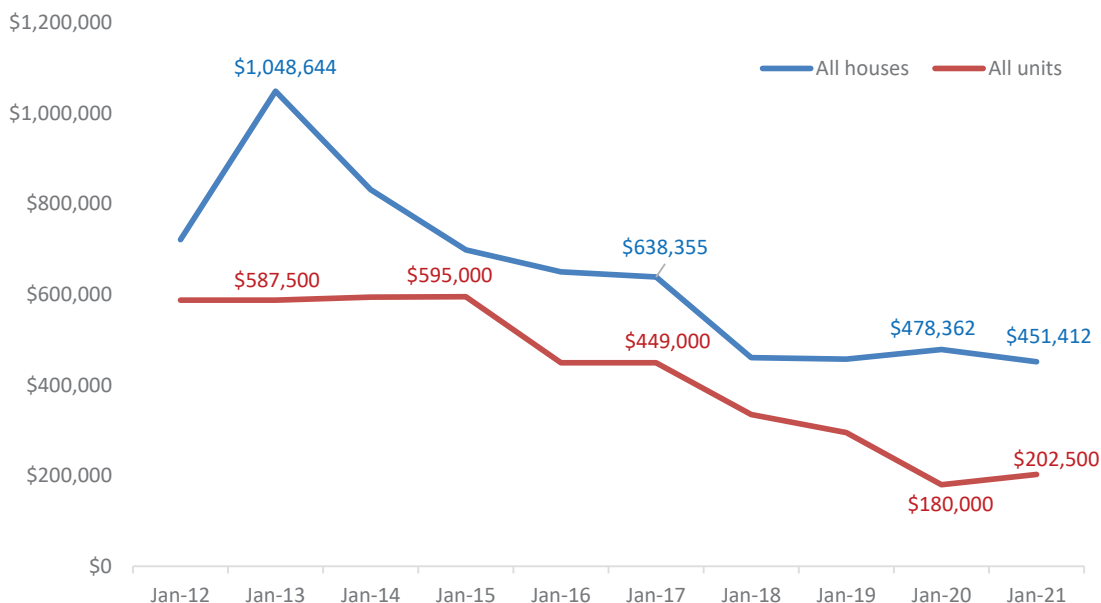
Industry	Onslow	Ashburton LGA
Agriculture, forestry and fishing	3	83
Mining	97	2,839
Manufacturing	9	107
Electricity, gas, water and waste services	6	82
Construction	76	2,311
Wholesale trade	3	64
Retail trade	9	130
Accommodation and food services	37	400
Transport, postal and warehousing	31	224
Information media and telecommunications	0	10
Financial and insurance services	0	9
Rental, hiring and real estate services	16	57
Professional, scientific and technical services	17	733
Administrative and support services	13	244
Public administration and safety	34	181
Education and training	26	223
Health care and social assistance	21	129
Arts and recreation services	0	14
Other services	13	107
Inadequately described/Not stated	24	361
<b>Total</b>	<b>442</b>	<b>8,305</b>

Source: ABS (2016) & Macroplan (2021)

## 2.4 Housing market trends

In January 2021, the median house price in Onslow was \$0.45 million, 5.6% higher than in 2020. Over the last 7 years, Northern region's median dwelling prices dropped significantly, about 4.8% decrease per annum. This trend was mirrored in the price of dwellings in Onslow. However, the decline in dwelling prices in Onslow was more pronounced in that period (8.0% per annum) and the fall in prices in 2020 has seen prices reached a new record low in 2021.

**Figure 3. Residential median house prices, 2012-2021**



Source: SQM Research

The median unit price in Onslow was \$0.2 million in 2021, 12.5% higher than in 2020. Whilst this year-on-year growth is significant, it followed a 15.4% fall per annum over the last 3 years. It is important to note unit sales are limited in Onslow, so market evidence is constrained.

Overall, the market has performed weaker compared with the overall Northern region market and partial indicators point that being the case in 2021.

**Table 7. Weekly asking prices index, Onslow (6710) & WA Northern Region**

	Northern Region (WA)		Onslow (6710)	
	% (house)	% (unit)	% (house)	% (unit)
<b>12-month % change</b>	15.4	54.5	-5.6	12.5
<b>3 year % (p.a.) change</b>	4.4	7.4	-0.6	-15.4
<b>7 year % (p.a.) change</b>	-4.8	-6.7	-8.0	-14.2
<b>10 year % (p.a.) change</b>	-3.9	-5.5	-5.0	-9.2

Source: SQM Research



## Section 3: Economic benefits

### 3.1 Quantitative benefits

The following presents both the quantitative and qualitative economic benefits that can be expected to be generated by the development and operation of the Onslow Village.

#### Quantitative benefits

The following provides the quantifiable benefits estimated in terms of local employment generation in the construction and operational phases.

#### Onslow Village construction phase employment outcomes (FTE's)

Macroplan's input-output model was used to estimate economic multipliers for job creation during the construction and phases of the project.

As a direct result of the construction of the Onslow Village which is estimated to cost \$100 million Macroplan estimates that 444FTE's will be created in the one-year construction phase. These include FTEs for 190 local direct and 254 indirect jobs. Macroplan has adopted a share of 95% for local direct employment and 65% for indirect employment.

#### Onslow Village operation phase employment outcomes (FTE's)

On an annual ongoing basis, Macroplan assumes that owing to the scale of the Onslow Village, in the order of 50 FTE jobs will be generated to operate it. Employment will be created for occupations including management, administration staff, chefs, cooks, kitchen hands, cleaners, bar staff, security, IT professionals and maintenance staff (plumbers, electricians etc).

The Onslow Village is expected to accommodate up to 500 persons. Their occupations will cover a broad range of positions including truck operator, apprenticeships, labourers, cleaners, electricians, mechanical fitters, boilermakers, trades assistants, riggers, IT professionals, maintenance personnel, plant and machinery operators and others.

Each year during the operational phase, the total wages generated on annual basis, will be in the order of 550 employees @ \$124,000 per annum or \$68.2m. Over the 30-year time horizon, without adjustment for inflation etc, that gives a total of approximately \$2.05b.

Macroplan research suggests that in the order of up to 5% of the income of the workers who are living and working in the Onslow Village could be spent off site in local business.

Onslow's businesses could therefore expect a new annual spending injection in the order of approximately \$3.4m from the new workforce. This would likely include new spending for Onslow's offerings in food and beverage, entertainment, and recreational activities including fishing, sport and fitness etc.

### 3.2 Qualitative benefits

Several qualitative economic, social and environment benefits will also be created as a result of the Onslow Village during the construction and operational phases of the development. These however are problematic to measure and estimate owing to their unique non-monetary nature and to their scale. Nonetheless, they will contribute to the improved amenity enjoyed by both local residents and for visitors to the new facility. We consider that each of the following represents a notable economic, social and/or environmental benefit for the Region.

#### Economic benefits

- Improved revenue opportunities for the local Onslow and Ashburton based businesses to provide services and goods, and potentially create more employment opportunities;
- Investment in the Onslow Village will assist to grow the Onslow and Ashburton economic base, assist in employment growth and help to reduce unemployment. This will help to grow a more diverse economy and grow employment in other sectors within a range of industries; and
- The Ashburton LGA and Onslow tourism profiles will receive a notable boost with any future use of the Onslow Village for tourism purposes. With good marketing and a professional operator, the Onslow Village will cater to increased demand for accommodation by interstate, intrastate and international visitors.

#### Social benefits

- The provision of high amenity, resort-standard accommodations will improve the amenity enjoyed by all residents;
- Increased opportunity to participate in healthy activities, gymnasium, cardio programs etc;
- The high standard of the Onslow Village with access to healthy meal options and gymnasium and cardio programs should assist in improving mental health for residents and visitors;
- Increased interest in and knowledge about Onslow and Ashburton
- An opportunity for companies to engage with the local population through sponsorship of local community groups, sports clubs etc and to host corporate events locally;
- Improved ability for the local business to elevate their profile;
- Indigenous employment opportunities;
- Opportunities for non-indigenous workers to learn more about indigenous culture;
- Potential to mitigate the effects of the boom-and-bust house price cycle through the provision of a significant supply of workers accommodation;
- Onslow Village will offer employees more lifestyle choice, allowing some individuals and families to remain in their home and part of the Onslow community;
- Onslow Village will provide some facilities that will have access to the public (creche, childcare, restaurant, cinema, gym, tavern,) thus enhancing the amenity enjoyed by local residents.

#### Environmental Benefits

- The incorporation of state-of-the-art environmentally sensitive design features and technologies will help to reduce the potential carbon footprint of the Onslow Village;
- Use of greywater to reduce overall water usage;
- Use of green energy e.g., solar systems within the new facilities to reduce reliance on the grid and CO2 emissions.

### **3.3 Summary**

Macroplan's economic analysis finds notable economic benefits will accrue as a result of the Onslow Village. Quantifiable benefits including local job creation in both the construction and operational phases over the thirty-year study period are all factors supportive of the project.

A diverse range of qualitative economic, social and environmental benefits can be expected to be generated as a direct and indirect consequence of the proposed Onslow Village. These include but are not limited to the creation of local jobs and new local business expenditure; enhanced support for community groups and events; assistance for the regional Ashburton and Onslow communities to be more sustainable; diversification of regional employment choices including new indigenous employment opportunities; and improved amenity enjoyed by residents. And over time, a more sophisticated tourism product offering for local and international markets.

In the absence of Onslow Village as a catalyst, the significant set of benefits presented in this assessment will not materialise.

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Onslow - Transient Workforce Accommodation (500 Persons)**

19 October 2021

Shire of Ashburton  
PO Box 567  
TOM PRICE WA 6751

**Attention:** Ben McKay, Manager of Town Planning

Dear Ben,

**SUBJECT: - REVIEW OF ENVIRONMENTAL ASSESSMENT - LOT 300 BACK BEACH ROAD, ONSLOW**

### INTRODUCTION

Please find enclosed (Attachment A) an overview of the results from Aurora Environmental's review of the Environmental Assessment Report prepared in support of a transient workers accommodation (TWA) facility at Lot 300 Back Beach Road in Onslow.

The review has considered:

- Onslow Township Village Environmental Assessment Report, 360 Environmental, Rev 2, August 2021.
- Earthworks Concept Option 2 Plan, Pritchard Francis, Drawing No. 21195-C9-SK-05.

Please note that the version of the Onslow Township Village Environmental Assessment Report provided did not include the following reports:

- Urban Water Management Plan (360 Environmental);
- Bushfire Management Plan (Linfire Consultancy); and
- Bushfire Emergency Management Plan (Linfire Consultancy).

The above reports were listed as Appendices C to E in the Environmental Assessment Report. As these were not reviewed, it is not possible to verify the information presented in these documents or verify if the information has been interpreted correctly within the Environmental Assessment Report. It is possible some of the information gaps identified in the review of the Environmental Assessment Report have been addressed in the above reports.

In conducting the review, Aurora Environmental has:

- Prepared an environmental factors matrix aligned with the EPA Environmental Factors and consideration of matters protected under Commonwealth environmental legislation as a framework for assessing the environmental assessment report.
- Validated information within the report, such as potential conservation significant fauna and flora, by undertaking independent research and database searches.

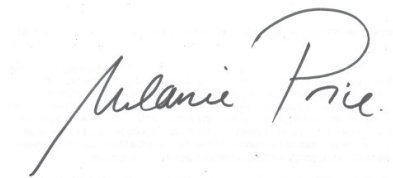
Peer Review Environmental Assessment Report – Lot 300 Back Beach Road, Onslow

- Documented our findings including identifying potential anomalies or gaps in information presented in the environmental assessment report along with recommendations for how these issues could be addressed.


The review of the Environmental Assessment Report has ignored aspects such as grammatical and spelling errors. As a general observation, it is considered that some relevant information from the technical studies which support the Environmental Assessment Report is missing. For example, the Environmental Assessment Report does not list all database searches (i.e. the DBCA Threatened and Priority Flora and Fauna databases and the DBCA's Threatened Ecological and Priority Ecological database) conducted for the flora, vegetation and fauna report. This is important contextual information.

Should you have any queries please do not hesitate to call the undersigned on 0447 446 343 or via email at [melanie.price@auroraenvironmental.com.au](mailto:melanie.price@auroraenvironmental.com.au).

For and on behalf of Aurora Environmental



Melanie Price  
Principal Environmental Scientist



Paul Zuvela  
Manager – Environmental Impact Assessment  
Director

# **ATTACHMENT A**

## Review Summary Table



## REVIEW COMMENTS – ONSLOW TOWNSHIP VILLAGE ENVIRONMENTAL ASSESSMENT REPORT, DOC. REF: 4755AA\_REV2 (360 ENVIRONMENTAL, 2021)

SUMMARY		AURORA COMMENT
Executive Summary	The environmental issues identified in the environmental assessment report (EAR) do not pose a significant constraint to development of the site. All environmental features can be managed through further technical investigations and/or the implementation of a Construction Environmental Management Plan (CEMP) for the proposed development during the construction phases of the development. Aboriginal heritage approvals shall be sought separately to the development approval process.	Ok – potential updates to the Executive Summary may be required following review of comments provided below.
1.0 Introduction	Introductory content	Content appropriate. It is noted that paid DBCA database searches (sourced for the flora and vegetation assessment) are not listed.
2.0 Key Environmental Legislation	Overview of legislative, policy and guideline framework.	Content is appropriate.
2.5.2 Zoning	Zoned 'Conservation, Recreation and Nature Landscape'	Suitability of the site for the proposed use under the current land use zoning. Unclear if a scheme amendment will be required. If so, this introduces the possibility of a Section 48 assessment by the EPA. This issue has not been addressed in the Environmental Assessment Report.
2.5.3 Onslow Townsite Expansion	Onslow Townsite Expansion forming part of the Local Structure Plan (Shire of Ashburton, 2019). The site is identified as an 'Area Subject of Further Investigation'.	Section 2.5.3 indicates the site is located in an area subject to further investigation. It is presumed that this implies the site may be suitable for future development.
3.3 Topography	The site has a low point of approximately 6 m above Australian Height datum (mAHD) in the southwest corner and rises to a high of approximately 16 mAHD near the northeast corner, before falling to 9 mAHD near Third Ave. The site tends to undulate gently from southeast to southwest through the centre of the site, before again falling away along the northwest boundary.	Landgate Locate V does not have contours for this area. Contours shown in Figure 2 are not labelled. Topography could not be verified.
3.4 Soils / Local Geology / Acid Sulfate Soils	Soil: Dune System 201 DU described as 'Dune fields supporting soft spinifex and minor hard spinifex grasslands' coastal dunes, being calcareous and siliceous sands, locally shelly and/or cemented (beach rock). The central portion running to the southwest site boundary at Back Beach Road) is mapped as having 'Moderate to Low' risk of ASS within the first 3 m of natural soil surface	Content is appropriate. Noted that potential for ASS to be present on a portion of the site and adjacent to the site. Potential impacts to ASS will be determined by confirmed presence of ASS and potential disturbance pathways such as direct excavation or dewatering.
3.4.5 Contaminated Sites	No significant historical contaminating activities on the site, however potentially contaminating activities in close proximity to the site. There were six (6) AOPCs identified within close proximity to the site including the following: <ul style="list-style-type: none"> <li>AOPC 1 – Part of the site is located adjacent to the former furnace oil aboveground storage tanks (ASTs) and associated fuel pipelines and pumps (the offsite former furnace oil AST area) to the north of the site. This is classified as Contaminated – Remediation Required.</li> <li>AOPC 2 – Part of the site located adjacent to the former historical bulk fuel storage to the east (diesel line) of the site and associated fuel pipelines and pumps.</li> </ul>	Content is appropriate. Surrounding land use activities identified in the report have the potential to have caused contamination to soil or groundwater. The Environmental Assessment Report does not address potential groundwater flow direction and whether adjacent potentially contaminating activities may have impacted groundwater beneath the site. Further investigations are warranted as per DWER guidelines, prior to the commencement of development on the site.

ITEM	SUMMARY	AURORA COMMENT
	<ul style="list-style-type: none"> <li>• AOPC 3 – Part of the site located adjacent to the former historical bulk fuel storage to the south (aviation spirit) of the site, and associated fuel pipelines and pumps.</li> <li>• AOPC 4 - Part of the site with a moderate to low risk of acid sulfate soils (ASS) being present within 3 meters of the soils surface.</li> <li>• AOPC 5 - Potential unexploded ordnance (UXO) from activities during WWII (whole of site and Onslow Townsite).</li> <li>• AOPC 6 - Potential asbestos from illegal fly-tipping or associated with offsite sources (whole of site).</li> </ul> <p>The following data gaps were identified associated with the above identified AOPCs:</p> <ul style="list-style-type: none"> <li>• No soil or groundwater investigations have been undertaken at the site however it is understood offsite contamination (and possible remediation) associated with former fuel infrastructure located to the north has previously occurred</li> <li>• It is not known if the soils in the area marked as having a 'moderate to low risk of ASS' being present are potential or actual ASS</li> <li>• It is not known if a detailed UXO survey has been undertaken at the site, or if records exist of any historical UXO searches or recovery operations in relation to the site</li> <li>• Without a hazardous materials (HAZMAT) survey of the site or previous site investigations, it is not known if asbestos containing materials (ACM), asbestos fines (AF) or fibrous asbestos (FA) are present at the site.</li> </ul>	
3.5 Hydrogeology	<p>Overview of groundwater conditions.</p> <p>RIWI Act Groundwater Proclaimed Area Pilbara. The site lies within the Pilbara groundwater area and Ashburton sub-area. Carnarvon superficial aquifer and the Carnarvon Birdrong artesian aquifer are present within site. Water drawn from the Birdrong Aquifer is the primary local bore water source. It is the principal artesian aquifer for the Carnarvon Artesian Basin (360 Environmental ,2021c).</p>	<p>This section would benefit from additional information. The report does not adequately address groundwater levels, direction of groundwater flow and groundwater quality beneath the site. This information may be in the Urban Water Management Plan which has not been sighted. However, the environmental assessment report should also include this level of detail.</p> <p>The direction of groundwater flow is particularly pertinent given the potential for groundwater quality to have been compromised by adjacent contaminating activities.</p>
3.6 Hydrology	<p>Overview of surface water conditions.</p> <p>The site is mapped within the Pilbara Surface Water Area (SWA) under the RIWI Act Surface Water Proclamation Areas. It is located within the Ashburton River surface water area, and the Ashburton River is 20 km southwest of the site. The closest surface water features are located outside of the site approximately 2.5 km east (Beadon Creek). No surface water features on site.</p> <p>The Geomorphic Wetlands database search did not identify any wetlands to be occurring within the site. No Ramsar wetlands were identified on site or within 10 km of the site.</p>	<p>Content is appropriate.</p> <p>No information presented about flood levels or storm surge which have the potential to cause inundation.</p>
3.7 Environmentally Sensitive Area	<p>DWER mapping identifies that the site is not located within an ESA and no ESA was identified within the 10km of the site (DWER, 2021d).</p>	<p>Content is appropriate.</p>

ITEM	SUMMARY	AURORA COMMENT																		
3.8 Conservation Estate	There is no Regional Parks or Department of Biodiversity Conservation and Attractions (DBCA) Managed Lands intersecting the site.	Content is appropriate. Closest DBCA managed land is Thevenard Island Nature Reserve (20km north of the site).																		
3.9 Flora and Vegetation	Overview of flora and vegetation values.	<p>It is not clear from the report what type of flora and vegetation survey was undertaken and whether it was conducted in accordance with EPA Technical Guidance. The Environmental Assessment Report should be able to be read independent of the flora and vegetation assessment report provided in the Appendices. Additional details from the flora and vegetation assessment report should be reflected in the Environmental Assessment Report. For example, the following should be included:</p> <ul style="list-style-type: none"> <li>• Definitions of high, medium and low likelihood of occurrence for threatened and priority taxa.</li> <li>• Vegetation condition rating method.</li> <li>• Quadrat sampling size.</li> <li>• Whether floristic analysis of quadrat data was completed.</li> </ul> <p>NatureMap database search buffer is appropriate.</p> <p>Suitable buffer applied for Protected Matters Search Tool (EPBC Act) search.</p> <p>Section 3.9.2 incorrectly refers to the Perth region (Paragraph 1).</p>																		
	Regional vegetation association and complex mapping: Cape Yannare Coastal Plain 117 broad vegetation type.	<p>Section 3.9.2 does not include a description of the vegetation association (Hummock grasslands, grass steppe; soft spinifex) but does in a latter section of the report.</p> <p>The data presented in Table 4 appears to include all Association 117 in the statistics, not just Cape Yannare Coastal Plain 117 (i.e. the author has used Report 1a instead of Report 1b of the Vegetation Statistics report). According to Report 1B of the Statewide vegetation statistics, there is 59.45% of this vegetation type remaining. So while there is greater than 10% remaining none is in secure conservation tenure. Also, Report 4b indicates that the Cape Yannare System is only found in Shire of Ashburton.</p>																		
		<table border="1" data-bbox="894 254 1157 972"> <thead> <tr> <th>System</th> <th>Vegetation Association</th> <th>SA_CODE</th> <th>Pre-European Extent</th> <th>Current Extent</th> <th>% Remaining</th> </tr> </thead> <tbody> <tr> <td>CAPE YANNARE COASTAL PLAIN</td> <td>117</td> <td>117</td> <td>8,614.38</td> <td>5,121.16</td> <td>59.45</td> </tr> <tr> <td><b>TOTALS</b></td> <td></td> <td></td> <td><b>8,614.38</b></td> <td><b>5,121.16</b></td> <td><b>59.45</b></td> </tr> </tbody> </table> <p>Source: Government of Western Australia. (2019). 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth. <a href="https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics">https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics</a></p>	System	Vegetation Association	SA_CODE	Pre-European Extent	Current Extent	% Remaining	CAPE YANNARE COASTAL PLAIN	117	117	8,614.38	5,121.16	59.45	<b>TOTALS</b>			<b>8,614.38</b>	<b>5,121.16</b>	<b>59.45</b>
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		<p>The information presented above is not regarded to be a critical factor.</p> <p>Reference to the retention threshold of 10% for constrained areas is incorrect. The 10% threshold applies to constrained areas which are defined as "An area where there is a reasonable expectation that development will be able to proceed. This may include urban, urban deferred or industrial zoned land or land with existing development approvals." This definition is not applicable to the site with its current zoning/reservation.</p>																		

ITEM	SUMMARY	AURORA COMMENT
	<p>3.9.4 Likelihood of threatened taxa occurrence</p> <ul style="list-style-type: none"> <li>No Threatened or Priority Listed Flora have been recorded within the site</li> <li>Two taxa were considered to have a high likelihood of occurrence based on habitat preference</li> <li>Three were considered to have a medium likelihood of occurrence based on habitat preference</li> <li>Four were considered to have a low likelihood of occurrence based on habitat preference.</li> </ul> <p>An additional thirty (30) species were identified by the literature review; however, these were not included in the flora likelihood assessment as all were considered highly unlikely to occur within the site (360 Environmental,2021) (Appendix B).</p> <p>3.9.6.1 Flora Composition</p> <p>One (1) species was not able to be positively identified and has been tentatively listed as <i>Flueggea virosa</i>. Additionally, two (2) <i>Tephrosia</i> collections were not able to be positively identified due to species variability with the morphology based on the WAH reference collection.</p> <p>None of these taxa resemble any potentially occurring Threatened and Priority Flora, or flora of Conservation significance (360 Environmental, 2021).</p>	<p>Unable to comment on this. Florabase indicates that <i>Flueggea virosa</i> has not been recorded in Onslow. <a href="https://florabase.dpaw.wa.gov.au/browse/profile/4654">https://florabase.dpaw.wa.gov.au/browse/profile/4654</a></p>
3.10 Fauna	<p>Overview of fauna and flora habitat values.</p> <p>Desktop review identified:</p> <ul style="list-style-type: none"> <li>47 bird species</li> <li>Four mammal species</li> <li>Eight reptile species (includes five turtle species known to breed in the Pilbara region)</li> <li>No amphibian species.</li> <li>No species had a high likelihood of occurrence</li> <li>20 species had a medium likelihood of occurrence (19 bird species, one reptile species)</li> <li>39 species had a low likelihood of occurrence (28 bird species, four mammal species, seven reptile species).</li> </ul> <p>One (1) broad fauna habitat was identified and mapped within the site. The coastal dune Fauna Habitat was continuous throughout the site and is analogous with the Coastal Dune (VT1) vegetation type. The habitat quality was identified to be good throughout the site.</p> <p>Survey identified 18 species (14 bird species, 3 mammals, 1 reptile)</p>	<p>It is not clear from the report what type of fauna survey was undertaken and whether it was conducted in accordance with EPA Technical Guidance. The Environmental Assessment Report should be able to be read independent of the fauna assessment report provided in the Appendices.</p> <p>Information presented in the Environmental Assessment Report is high level and lacks detail about the species that may occur on the site. For example, it is noted that <i>Lerista planiventralis maryani</i>, a Priority 1 listed reptile, has previously been recorded from near the site and that the site contains suitable habitat. This information should be discussed in Section 3.10.</p> <p>Species listed as Marine left out. Strictly speaking, as the development is so close to the coast, impacts on marine shorebirds could be discussed in terms of impacts and potential mitigation.</p> <p>Likelihood of occurrence rating (high, medium and low) has not defined.</p>
3.11.1 Aboriginal Heritage	<p>Overview of Aboriginal heritage values based on desktop review of Aboriginal Heritage Inquiry System. Four sites were recorded as intersecting the subject site and one site located nearby.</p>	<p>All registered sites are protected under the <i>Aboriginal Heritage Act 1972</i>. Consent is required from the Minister for Aboriginal Affairs for any activity which will negatively impact Aboriginal heritage sites. Under the AHA, Aboriginal sites of outstanding importance may be declared Protected Areas. The AHA also provides protection for Aboriginal objects.</p>

ITEM	SUMMARY	AURORA COMMENT
		The Environmental Assessment Report should also address whether there have been any cultural heritage surveys that have investigated the values of the subject site.
3.11.2 European Heritage	No European Heritage locations occur on the subject site.	Content is appropriate.
3.12 Bushfire Risk	The site is mapped in a Bush Fire Prone Area.	It is understood a Bushfire Assessment and Management Plan have been prepared. The information from the assessment should be outlined in the Environmental Assessment Report, including any recommendations related to management.

## ENVIRONMENTAL CONSTRAINTS AND MANAGEMENT

ITEM	SUMMARY	AURORA COMMENT
4.1 Key Environmental Issues, Factors and Objectives	Identification of EPA environmental factors relevant to the proposed development.	<p>The report identifies two themes and four environmental factors relevant to the proposed development. The factors listed are appropriate, though it is noted that the factors listed for the Water theme do not align with the EPA environmental factor (Inland Water). However, consideration should also be given to the inclusion of the following:</p> <p><b>Sea</b></p> <ul style="list-style-type: none"> <li>Coastal Processes – the proximity of the site to the coast means that coastal processes are relevant and should be addressed in the Environmental Assessment Report.</li> </ul> <p>The Environmental Assessment Report has not adequately addressed coastal setback requirements. Onslow Townsite Planning Coastal Setbacks and Development Levels (MP Rogers and Associates, 2011) recommended S1 – Severe Storm Erosion: 99 m, S2 Historic Shoreline Movement: 20 m, S3 Climate Change: 90 m. Total recommended Physical Processes Setback: 209 m. Current design approximately 100m. Viability of design depends on life of village infrastructure, transportability and layout to allow for managed retreat</p> <p><b>Land</b></p> <ul style="list-style-type: none"> <li>Terrestrial environmental quality – potentially contaminating activities adjacent to the subject site have been identified and a portion of the site is mapped as having Moderate-Low risk of ASS within 3m of site surface.</li> </ul> <p><b>People</b></p> <ul style="list-style-type: none"> <li>Social surroundings – Aboriginal heritage values may be present on the site. Whilst this issue may be addressed under the <i>Aboriginal Heritage Act 1972</i>, it should be addressed in the Environmental Assessment Report.</li> </ul>
Flora and Vegetation	EPA Objectives: To protect flora and vegetation so that biological diversity and ecological integrity are maintained.	
4.2 Flora and Vegetation	<ul style="list-style-type: none"> <li>One plant species tentatively identified as <i>Flueggea virosa</i></li> <li>No TEC or PEC recorded.</li> <li>Some vegetation to be retained.</li> </ul>	<p>Florabase indicates that <i>Flueggea virosa</i> has not been recorded in Onslow.  <a href="https://florabase.dpaw.wa.gov.au/browse/profile/4654">https://florabase.dpaw.wa.gov.au/browse/profile/4654</a>            Checked DBCA PEC list (<a href="https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/Listings/priority_ecological_communities_list.pdf">https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/Listings/priority_ecological_communities_list.pdf</a>). No PEC match the description of the vegetation on the subject land. PMIST did not highlight the potential for a TEC in the area.</p>
4.2.2 Potential Impacts within the Site	<ul style="list-style-type: none"> <li>Degradation and disturbances of the adjacent vegetation, including rubbish dumping, and uncontrolled access</li> <li>Edge effects on native vegetation caused by the interaction with urban land uses, causing a decline in vegetation condition</li> <li>Dieback diseases</li> <li>Introduction and distribution of invasive weed species</li> <li>Hydrological changes.</li> </ul>	<p>It is not clear from the Environmental Assessment Report how much native vegetation will be cleared. It is important to quantify the extent of impacts i.e. how much vegetation is to be cleared for the development. The total area of clearing should be inclusive of bushfire management requirements. <i>Phytophthora Dieback</i> not likely to be a risk in the area. This pathogen is generally recorded in the south-west of the State in the 400mm or greater rainfall zone. Dust deposition on adjacent vegetation could be added as a potential construction related impact.</p>
4.2.3 Management Measures	<ul style="list-style-type: none"> <li>Careful control of the clearing of vegetation within the site during the construction phase</li> </ul>	<p><i>Phytophthora Dieback</i> not likely to be a risk in the area.            The Environmental Assessment Report should outline which areas of the site will be established as open space and describe how this area will be managed and who will be responsible for the management of the</p>

ITEM	SUMMARY	AURORA COMMENT
Terrestrial Fauna	<p>EPA Objectives: To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.</p>	<p>The report states that the development has been designed to retain some native vegetation within the site and areas surrounding. It is not clear how much of the site will be cleared. It is also not clear if the vegetation retention takes into consideration bushfire management requirements.</p> <p>A Construction Environmental Management Plan (CEMP) is supported and should be imposed as a condition of development approval.</p> <p>A Dieback Management Plan is not needed for this region. Weed Management can be addressed in a CEMP.</p> <p>The Environmental Assessment Report should outline whether a native vegetation clearing permit is required, or if not, which exemptions apply.</p>
4.3 Terrestrial Fauna	<p>EPA Objectives: To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.</p>	<p>The potential presence of <i>Lerista planiventralis maryani</i> remains unresolved. The Report states that if the species were present, the clearing will have a significant impact upon the local population of the species. A targeted fauna survey should be undertaken to ascertain the species presence/absence. If the species is present, a fauna relocation should be implemented subject to DBCA approvals.</p>
4.3.1 Background	<p>Noted that <i>Lerista planiventralis maryani</i> (P1), utilises dune habitat in the bioregion and records indicate that it historically occurred within 1 km of the site. A targeted terrestrial vertebrate survey utilising pitfall traps would be required to assess its presence or absence in the site with greater certainty.</p>	<p>The report should quantify how much habitat will be cleared. The total area should include clearing requirements for bushfire management.</p> <p>Additional potential impacts to fauna from the development include:</p> <ul style="list-style-type: none"> <li>• Attraction of feral/domestic animals (seeking food, or trying to access bins)</li> <li>• Artificial lighting which may disrupt fauna behaviour patterns.</li> </ul>
4.3.2 Potential Impacts	<p>The key potential impacts on terrestrial fauna and its habitat from development of the site include:</p> <ul style="list-style-type: none"> <li>• Fauna deaths</li> <li>• Habitat degradation</li> <li>• Migration of fauna species.</li> </ul>	<p>Dieback control is not required in this region.</p> <p>Trapping and relocation of fauna is to be subject to the satisfaction of the DBCA and only once relevant approvals have been obtained. Trapping should be conducted for no more than CEMP (including weed management) is supported.</p>
4.3.3 Management Measures	<p>Potential environmental impacts to terrestrial fauna and its habitat can be managed by implementing the following strategies:</p> <ul style="list-style-type: none"> <li>• Careful control of the clearing of vegetation within the site during the development phase</li> <li>• Fauna trapping and relocation of fauna</li> <li>• Weed control</li> <li>• Dieback control and management</li> <li>• Fire management.</li> </ul> <p>CEMP and Relocation of fauna identified as possible commitments.</p>	<p>Groundwater levels and groundwater quality not described in the report.</p> <p>Groundwater levels may be described in UWM. Elevated floor heights proposed (Section 4.4.3) at 6.4 m AHD. Subject land ranges from 6 m AHD to 16 m AHD. Important to know groundwater levels at the site to ensure there is satisfactory separation to groundwater.</p> <p>Flood levels not described in the report.</p>
Hydrological Processes	<p>EPA Objectives: To maintain the hydrological regimes of groundwater and surface water so that environmental values are protected.</p>	<p>Groundwater levels and groundwater quality not described in the report.</p> <p>Groundwater levels may be described in UWM. Elevated floor heights proposed (Section 4.4.3) at 6.4 m AHD. Subject land ranges from 6 m AHD to 16 m AHD. Important to know groundwater levels at the site to ensure there is satisfactory separation to groundwater.</p> <p>Flood levels not described in the report.</p>
4.4 Hydrological Processes	<p>EPA Objectives: To maintain the hydrological regimes of groundwater and surface water so that environmental values are protected.</p>	<p>Groundwater levels and groundwater quality not described in the report.</p> <p>Groundwater levels may be described in UWM. Elevated floor heights proposed (Section 4.4.3) at 6.4 m AHD. Subject land ranges from 6 m AHD to 16 m AHD. Important to know groundwater levels at the site to ensure there is satisfactory separation to groundwater.</p> <p>Flood levels not described in the report.</p>
4.4.1 Background	<p>The site is hydrologically unconstrained with free draining sandy soils, clearance to groundwater, moderate to low risk of ASS (with some parts of the site with medium to high risk of ASS) and there are no regional service water features (DWER, 2021b).</p>	<p>Groundwater levels and groundwater quality not described in the report.</p> <p>Groundwater levels may be described in UWM. Elevated floor heights proposed (Section 4.4.3) at 6.4 m AHD. Subject land ranges from 6 m AHD to 16 m AHD. Important to know groundwater levels at the site to ensure there is satisfactory separation to groundwater.</p> <p>Flood levels not described in the report.</p>

ITEM	SUMMARY	AURORA COMMENT
		<p>No description of water supply. Presumed to be reticulated. May be addressed in UWMP.</p> <p>No description of effluent disposal. Presumed to be reticulated and not on-site? May be addressed in UWMP.</p>
4.4.2 Potential Impacts	<ul style="list-style-type: none"> <li>Groundwater level changes from changes in land use and clearing. The development of the proposed accommodation and associated outbuildings has the potential to increase recharge of rainfall into groundwater through increased surface area of roofs, driveways, carparks, and roads.</li> <li>Increased runoff from hard surfaces into surrounding retained environments.</li> <li>Impact on coastal environment.</li> <li>Pollution from urban surfaces into surrounding environments.</li> </ul>	<p>No detail in environmental assessment.</p> <p>Groundwater information may be in UWMP?</p> <p>There may or may not be impacts associated with effluent disposal, depending on disposal method adopted.</p>
4.4.3 Management Measures	<p>A Local Water Management Strategy (LWMS) was prepared for the Onslow townsite by Hydro2 Hydrology and Josh Byrne and Associates on behalf of Landcorp in support of a Development Guide Plan developed for the expansion of Onslow townsite (Landcorp, 2012). The LWMS describes how the issues of surface and groundwater management associated with the proposed development will be managed.</p> <p><b>UWMP</b></p> <ul style="list-style-type: none"> <li><b>Groundwater management:</b> Groundwater management focuses on groundwater levels, groundwater quality and acid sulphate soil management. For the site the following measures have been recommended: <ul style="list-style-type: none"> <li><b>Groundwater levels:</b> The site's floor levels will be required to be a minimum elevation of 6.4 m AHD, which will provide enough clearance to the AAMGL plus sea level rise (approximately 2.7 m). Therefore, subsoil drainage is not proposed.</li> <li><b>Groundwater quality:</b> The proposed storm water management will ensure the quality of groundwater is maintained. The two key strategies include infiltrating the first flush of rainfall at the source and minimising the development footprint to replicate current (pre-development) conditions and natural groundwater recharge.</li> <li>In addition, maximizing native and waterwise vegetation within landscape areas and minimizing the use of fertilizers and pesticides onsite will help in maintaining water quality.</li> <li><b>Acid Sulphate Soil Management:</b> ASS investigations are commonly required as part of the conditions of a development application. As the site has been identified as having moderate to low risk of ASS and natural landform is to be used i.e. no excavation</li> <li><b>Flood Management:</b> Overland flow will be safely conveyed to the natural depressions and the site will use natural flow paths. The site's development floor level has been designed to be at a minimum of 6.4 m AHD. This provides an adequate freeboard to the 100year return period cyclonic storm surge allowing for climate change as specified in the coastal strategy.</li> </ul> </li> </ul>	<p>UWMP not reviewed as it was not available to Aurora Environmental.</p> <p>Groundwater levels and water quality beneath the site is not described in the Environmental Assessment.</p> <p>Groundwater level data is an important consideration for determining finished levels, as is flood/storm surge levels.</p> <p>Reference to groundwater in UWMP is 'Groundwater levels: The site's floor levels will be required to be raised to a minimum elevation of 6.4 m AHD, which will provide enough clearance to the AAMGL plus sea level rise (approximately 2.7 m).' Not sure what the 2.7 m applies to?</p> <p>There is a preference to determine finished levels with consideration of Maximum Groundwater Level, not Annual Average Maximum Ground Levels.</p> <p>No description of water supply. Presumed to be reticulated. May be addressed in UWMP. Plans to re-use treated wastewater for non-potable uses?</p>



ITEM	SUMMARY	AURORA COMMENT
4.5 Aboriginal Heritage	<ul style="list-style-type: none"> <li>Site ID.6618: is a ceremonial, water source type of site</li> <li>Site ID. 6617: is a mythological site which extends from the south-eastern side of the Study Area into the town</li> <li>Site ID. 8920: is an artefact/scatter, Midden registered site</li> <li>Site ID. 6575: is an artefacts/scatter, midden not a protected area.</li> </ul>	<p>The Environmental Assessment Report does not indicate whether Native Title has been extinguished over the land.</p>
4.5.1 Background		
4.5.2 Potential Impacts	<ul style="list-style-type: none"> <li>Disturbance or removal of unknown cultural heritage within the subsurface construction works</li> <li>Loss of value to Aboriginal Heritage sites caused by machinery, human interaction with sites.</li> </ul>	<p>Potential impacts have been correctly identified.</p>
4.5.3 Management Response	<p>Undertake survey and proceed based on results.</p>	<p>Agreed that survey and engagement will be required. The Environmental Assessment Report should reference that Ministerial approval under Section 18 of the <i>Aboriginal Heritage Act 1972</i> may be required where a site(s) may be disturbed.</p>
4.6 Acid Sulfate Soils	<p>Preliminary site self-assessment proposed as part of DA. Determine if ASS is likely to be disturbed. If so, develop ASS and Dewatering MP.</p>	<p>The Environmental Assessment Report states that a preliminary self-assessment should be prepared as part of the development application. It is unknown if that has been done. This approach is supported and regarded appropriate. If not, a condition requiring the applicant to complete the preliminary self-assessment should be imposed as a condition of development approval.</p>
4.7 Contamination	<p>Impacts:</p> <ul style="list-style-type: none"> <li>Ground water pollution</li> <li>Human health and safety put at risk</li> <li>Air pollution</li> <li>Fauna habitat poisoning.</li> </ul> <p>Management:</p> <ul style="list-style-type: none"> <li>A UXO survey of the site should be considered prior to any site works commencing</li> <li>A HAZMAT site survey should be considered to evaluate the potential presence of asbestos at the site</li> <li>Conduct a review of any available contamination investigation and/or remediation reports describing works associated with former bulk fuel infrastructure (i.e. AOPC 1, AOPC 2 and AOPC 3) to determine the requirement for investigation onsite</li> <li>Site development plans should be reviewed to determine if ASS may be disturbed by development activities or if dewatering is to occur, and thereby determine the requirement for an ASSMP/DMP</li> <li>Depending on the findings of the above, consideration should be given to intrusive site investigations to:                             <ul style="list-style-type: none"> <li>Investigate the contamination status of soils (and potentially groundwater) onsite at AOPC 1, AOPC 2 and AOPC 3, to confirm there are no hydrocarbon impacts.</li> </ul> </li> </ul>	<p>Areas of potential contamination are correctly identified. Potential contamination issues should be resolved prior to development of the site, following DWER guidelines ensuring that soil and groundwater quality is appropriately investigated.</p>

ITEM	SUMMARY	AURORA COMMENT
4.8 Bush Fire Management	<ul style="list-style-type: none"> <li>o Assess the potential presence of asbestos (ACM, AF, or FA) in soils at the site. If identified to be present, asbestos remediation should be undertaken in accordance with Department of Health guidelines.</li> <li>o In the absence of any site investigations associated with AOPC 1, AOPC 2 or AOPC 3, an unexpected finds protocol (UFP) is recommended to be developed prior to site development works. The protocol should detail the management requirements should any of the contaminants of potential concern (COPCs) for the site be encountered during site development works.</li> </ul> <p>BMP and BEMP prepared</p> <p><b>Bushfire Management Plan:</b></p> <ul style="list-style-type: none"> <li>• Onsite Landscaping and Staging Buffers</li> <li>• Emergency Pedestrian Gates</li> <li>• Road Verge Fuel Management</li> <li>• Staging of Access</li> <li>• BAL Compliance and/or BAL Assessment Report</li> <li>• Building Construction Standards</li> <li>• Notification on Title</li> <li>• Compliance with Annual Firebreak Notice</li> </ul> <p><b>Bushfire Emergency Management Plan</b></p> <ul style="list-style-type: none"> <li>• Emergency Contacts</li> <li>• Bushfire Emergency Warnings and Forecast Bushfire Information</li> <li>• Bushfire Preparedness</li> <li>• Awareness and Pre-emptive Procedures</li> <li>• Bushfire Emergency Triggers and Decisions Making</li> <li>• Standby and Controlled Shutdown Procedures</li> <li>• Offsite Evacuation Response</li> <li>• Onsite Shelter-in-Place Response (Last Resort Action Only)</li> </ul> <p>Further investigations to address limited access to the site and the townsite for fire purposes will be necessary. The BMP and BEMP will be required to be implemented as a condition of Development Approval for the proposed development.</p>	<p>Original documents were not reviewed as these were not included with the version of the Environmental Assessment Report.</p> <p>Clearing requirements for bushfire management need to be defined and included when estimating impacts on flora, vegetation and fauna habitat.</p>
5.0 Key Environmental Constraints and Management Review (Table 10)	<p><b>Contamination:</b></p> <p>A desktop contamination assessment for the site concluded that there have been no significant historical contaminating activities at the site, as the site has been vacant and undeveloped. Six areas of potential concern (AOPC) were identified within the site.</p> <p>A HAZMAT assessment to evaluate the potential presence of asbestos at the site. In the absence of contamination investigations associated with the identified</p>	<p>Timing of contamination assessments not identified (with respect to planning process).</p> <p>Timing of HAZMAT needs to be identified. Prior to approval by Council or as a condition of development? Unexpected finds protocol could be included within the CEMP.</p>

ITEM	SUMMARY	AURORA COMMENT
	<p>AOPCs an unexpected finds protocol (UFP) is recommended to be developed prior to site development works.</p> <p>Additional assessments maybe required to be undertaken as a condition of Development Approval for the proposed development.</p>	
	<p><b>Acid Sulfate Soils</b></p> <p>A desktop assessment identified that a portion of the site is identified as 'moderate to low risk of ASS, with a portion of the site to the north identified as 'moderate to high risk of ASS'.</p> <p>A Preliminary Site Assessment will be undertaken to assess the presence and extent of ASS in accordance with DER guidelines. Depending on the results of the preliminary assessment, and whether ASS will be disturbed in the construction phase of the development, an ASS Assessment and Dewatering Management Plan may be required as a condition of Development Approval for the proposed development.</p>	<p>There are no areas associated with the subject land that are mapped as 'moderate to high risk of ASS'. The moderate to high risk ASS area is located north of the site.</p> <p>A preliminary self-assessment should be undertaken initially to determine if site investigations are needed. If site investigations are needed, these should be conducted in line with DWER Guidelines (DER, 2015. <i>Identification and investigation of acid sulfate soils and acidic landscapes</i>).</p>
	<p><b>Surface Water and Groundwater</b></p> <p>The UWMP identified appropriate measures and strategies to manage groundwater and surface water within the site and surrounding locality. The following measures have been suggested:</p> <ul style="list-style-type: none"> <li>• Stormwater management</li> <li>• Groundwater management</li> <li>• Flood management.</li> </ul> <p>The SWMS shall be implemented pre and post construction for the proposed development. Implementation of the UWMP will be required to cater for development that will be proposed for the site. Two winters of surface water monitoring will be required. The UWMP will be implemented as a condition of Development Approval for the proposed development.</p>	<p>UWMP not reviewed.</p> <p>Groundwater level and groundwater quality is not defined in the Environmental Assessment Report. This information should be investigated.</p> <p>As previously indicated, maximum groundwater levels should be used instead of AAMGL.</p> <p>Coastal processes should be addressed.</p>
	<p><b>Flora and Vegetation</b></p> <p>A detailed flora and vegetation survey of the site identified 30 native taxa were recorded from 15 families. No Threatened flora species pursuant to the <i>Environment Protection and Biodiversity Conservation Act 1999</i> and/or gazetted as Threatened pursuant to the <i>Biodiversity Conservation Act 2016</i>, or DBCA listed Priority flora species were recorded within the site. The <i>Tamarix aphylla</i> is the only weed listed as both a Declared Pest and Weed of National Significance by the Commonwealth Department Agriculture, Water, and the Environment found within the site.</p> <p>Potential impacts to vegetation and flora are considered unlikely to be significant due to the type of vegetation on site. The vegetation has been considered insignificant locally and regionally. Management measures include weed control, fire management, dieback management and control and establishment of culture</p>	<p>The report does not adequately quantify the impact to vegetation. Impact calculation should include clearing requirements related to bushfire management.</p> <p>CEMP development is appropriate.</p> <p>Dieback Management Plan is not required for this region.</p>

ITEM	SUMMARY	AURORA COMMENT
	<p>centre to retain native vegetation within the site. Preparation of a CEMP is recommended prior to construction. A Dieback Management Plan and Weed Management Plan may be required as a condition of Development Approval for the proposed development.</p>	
<p><b>Fauna</b></p> <p>No conservation significant species were recorded during the fauna survey. Fourteen (14) bird species and one (1) reptile species were confirmed to be using the site.</p> <p>Potential impacts to fauna habitats and conservation of fauna species. No conservation significant fauna was found in the survey. <b>Fauna habitat could be protected.</b> Careful control of the clearing of vegetation within the site during the development phase by careful control of the clearing of vegetation within the site during the development phase. Having a fire management plan and controlling weeds around within retained areas and site surroundings. <b>Relocation and trapping of vertebrate fauna will be necessary prior to construction commencing on the site. A Relocation Management Plan may be required as a condition of Development Approval for the proposed development.</b></p> <p>Preparation of a CEMP is recommended prior to construction. A Dieback Management Plan or Weed Management Plan may be required as a condition of Development Approval for the proposed development.</p>	<p>Not sure what they mean by 'Fauna habitat could be protected'. Clarification on this point would be useful. The report does not adequately quantify the impact to fauna habitat. There is some residual vegetation proposed to be retained but unclear what modification is required to achieve low fuel/ bushfire safety.</p> <p>Targeted site survey may be required to confirm the presence/absence of <i>Lerista planiventralis maryoni</i> (P1).</p> <p>Trapping and relocation of fauna, if required, should be undertaken with appropriate approvals in place and to the satisfaction of the DBCA.</p>	
<p><b>Heritage</b></p> <p>Three registered Aboriginal Heritage sites within the site:</p> <ul style="list-style-type: none"> <li>Site ID: 6618 - is a ceremonial, water source type of site. This site covers the whole Study area. It is named DEW TALLU.</li> <li>Site ID: 6617 - is a mythological site which extends from the southeastern side of the Study Area into the town. The site is named BURUBARLADJI.</li> <li>Site ID: 8920 - is an artefact/scatter, Midden registered site. The site is within the Study area, covering at least a third of the southeast side of the site.</li> <li><b>Add 4 one off site</b></li> </ul> <p>An ethnographic and archaeological survey of the site will be required by a suitably qualified consultant prior to any development. Preparation of a Cultural Heritage Management Plan in consultation with the Aboriginal knowledge holders for the area may be required to identify appropriate management measures and provisions for heritage areas to be retained and managed on site. A Section 18 Application will be required prior to construction. The additional surveys or applications will be required to form part of the Development Application separate to this application.</p>	<p>Highlighted text (see left) is a typo.</p> <p>Proposed management approach is supported.</p>	
<p><b>Bushfire Risk</b></p> <p>The site is a Bush Fire Prone Area.</p>		<p>BMP and BEMP not reviewed.</p>