



## Statutory Planning Committee

Notice is hereby given the next meeting of the Statutory  
Planning Committee will be

**Meeting No. 7635**

**Tuesday, 19 May, 2020, 9:30 am**

**Virtual meeting over Zoom**

This meeting is not open to members of the public

1.	Declaration of opening	
2.	Apologies	
3.	Members on leave of absence and applications for leave of absence	
4.	Disclosure of interests	
5.	Declaration of due consideration	
6.	Minutes	
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7.	Deputations and presentations	
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9.	Confidential items	
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10.	Reports for noting	
11.	Stakeholder engagement and site visits	
12.	Urgent or other business	
13.	Items for consideration at a future meeting	
14.	Meeting closure	

# WAPC STRATEGIC PLAN 2018-2021

OUR VISION:

**Creating better places to live and work for all Western Australians**

OUR MISSION:

**Ensuring the planning system develops policy and enables planning decisions for the long-term benefit of the Western Australian community**

Our Functions	Our Focus	Our Priorities	Our Outcomes
<ul style="list-style-type: none"> <li>State Planning Strategy and Policy</li> <li>Regional, Sub-Regional and Local Planning Strategies</li> <li>Regional and Local Planning Schemes</li> <li>Planning and Development Applications – Subdivision and Strata Title</li> <li>Structure Planning</li> <li>Improvement Plans &amp; Schemes</li> <li>Infrastructure Planning and Coordination</li> <li>Research, Modelling &amp; Analysis</li> <li>Improve the Planning System</li> <li>Finance &amp; Property Management</li> </ul>	<b>Jobs and infrastructure</b>	<ul style="list-style-type: none"> <li>Facilitate economic diversification and development</li> <li>Support development of a State Infrastructure Strategy</li> <li>Deliver a planning system and processes adapted for technological change in the community and economy</li> <li>Support delivery of METRONET through the planning system as part of a whole-of-government approach</li> </ul>	<ul style="list-style-type: none"> <li>Sufficient urban, commercial, industrial and priority agricultural land for growth</li> <li>Long-term strategic industry, infrastructure planning and corridor protection</li> <li>Strong industry and employment hubs with particular emphasis on tourism, food and agriculture, education, research and technology</li> <li>Alignment and integration of land use, infrastructure and transport planning</li> </ul>
	<b>Liveable Communities</b>	<ul style="list-style-type: none"> <li>Facilitate infill development and sustainable urban growth</li> <li>Address barriers to affordable living and housing diversity through policy leadership</li> </ul>	<ul style="list-style-type: none"> <li>Increased density and diversity around Activity Centres</li> <li>Achieve infill housing and density targets and greater housing choice</li> <li>Enable creation of liveable cities and towns with quality public and private spaces</li> </ul>
	<b>A Better Built Environment</b>	<ul style="list-style-type: none"> <li>Lead precinct planning to enable METRONET</li> <li>Develop a policy and decision-making framework to encourage greater housing options for changing demographic needs</li> <li>Promote and protect the urban tree canopy for all communities for amenity and health benefits</li> </ul>	<ul style="list-style-type: none"> <li>Improved design of urban centres, corridors and stations</li> <li>Improved design quality of the built environment</li> <li>Greater community support for more diverse housing options, urban centres, corridors and stations</li> <li>Protection and enhancement of the urban tree canopy across diverse communities</li> </ul>
	<b>Transparent, Equitable and Efficient Planning Processes</b>	<ul style="list-style-type: none"> <li>Continued review and reform of the planning system and processes</li> <li>Greater early, effective and genuine communication and engagement with the community and industry on planning and development issues</li> <li>Improve collaboration and capability of all key decision-makers in the planning system, including local government</li> <li>Implement technological improvements including quality online reporting on planning performance for all WAPC functions</li> </ul>	<ul style="list-style-type: none"> <li>Efficient, transparent and timely assessment and decisions on planning applications and processes</li> <li>Contemporary region and local planning strategies, schemes and regulations</li> <li>Improved transparency, efficiency and community support for planning processes</li> <li>Updated and effective <i>Planning and Development Act 2005</i> and regulations</li> </ul>
	<b>Environment and Natural Resources</b>	<ul style="list-style-type: none"> <li>Continue the Coastal Management and Planning Program to deal with the risks posed by climate change</li> <li>Ensure bushfire regulations reflect planning appropriate for the risk to community and the environment</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable development which protects, conserves and promotes natural assets (land and water) and biodiversity</li> <li>A planning system which addresses climate change</li> <li>Planning to mitigate risks from natural hazards and events</li> </ul>
	<b>Land and Finance Management</b>	<ul style="list-style-type: none"> <li>Contribute to the successful delivery of METRONET through strategic, efficient and innovative use of the Metropolitan Region Improvement Fund</li> <li>Ensure WAPC land and property assets are used for long-term community benefit</li> </ul>	<ul style="list-style-type: none"> <li>WAPC land management in place to deliver METRONET</li> <li>Effective and sustainable stewardship and management of the Metropolitan Region Improvement Fund</li> <li>Increased regional open space in Greater Perth</li> </ul>

## STATE PLANNING STRATEGY PRINCIPLES:

### Community

Enable diverse, affordable, accessible and safe communities

### Economy

Facilitate trade, investment, innovation, employment and community betterment

### Environment

Conserve the State's natural assets through sustainable development

### Infrastructure

Ensure infrastructure supports development

### Regional Development

Build the competitive and collaborative advantages of the regions

### Governance

Build community confidence in development processes and practices

# Information for SPC Members

*Quorum: 5 of 10 members*

Member	Representation in accordance with the <i>Planning and Development Act 2005</i>	Term of office ends
Mr David CADDY	Chairman, WAPC Schedule 2 clause 4(2)(a)	15/04/2021
Mr Vaughan DAVIES	Nominee of the Director General, Department of Planning, Lands and Heritage Schedule 2 clause 4(2)(b)	Current Nominee
Ms Paddi CREEVEY OAM	Nominee of the Regional Minister Schedule 2 clause 4(2)(c)	Current Nominee
Ms Kym DAVIS	Community representative Schedule 2 clause 4(2)(d)	31/12/2020
Ms Marion THOMPSON	Professions representative Schedule 2 clause 4(2)(e)	31/12/2020
Mr Leonard KOSOVA	Local government representative Schedule 2 clause 4(2)(f)	31/12/2020
Ms Megan ADAIR	WAPC appointee Schedule 2 clause 4(2)(g)	31/12/2020
Mr Lino IACOMELLA	WAPC appointee Schedule 2 clause 4(2)(g)	31/12/2020
Ms Nina LYHNE	WAPC appointee Schedule 2 clause 4(2)(g)	31/12/2020
Mr Ross THORNTON	WAPC appointee Schedule 2 clause 4(2)(g)	31/12/2020

## Role:

The Statutory Planning Committee is one of four committees set up by the WAPC on 1 March 1995 upon proclamation of the *Planning Legislation Amendment Act (No. 2) 1994*.

Schedule 2(4)(4) of the *Planning and Development Act 2005* (PD Act)

The Statutory Planning Committee is the WAPC's regulatory decision-making body and performs such of the functions of the WAPC under the *Planning and Development Act 2005* and Part II of the *Strata Titles Act 1985* as are delegated to the Statutory Planning Committee under section 16 and such other functions as are delegated to it under that section. These functions include approval of the subdivision of land, approval of leases and licenses, approval of strata schemes, advice to the Minister for Planning on local planning schemes and scheme amendments, and the determination of certain development applications under the Metropolitan Region Scheme.

## Membership (extract from PD Act):

The composition of the Statutory Planning Committee is in accordance with Schedule 2(4) of the *Planning and Development Act 2005*.

### 4. Statutory Planning Committee

- (1) The Commission is to establish a committee to be known as the Statutory Planning Committee.
- (2) Subject to subclause (5), the Statutory Planning Committee is to consist of —
  - (a) the chairperson, or a person nominated by that person and approved by the Minister; and
  - (b) the chief executive officer, or a person nominated by that person and approved by the Minister; and
  - (c) the member of the board referred to in section 10(1)(c)(viii) or a deputy appointed under subclause (3); and

- (d) a person approved by the Minister and appointed to the Commission as having practical knowledge of and experience in community affairs; and
- (e) a person approved by the Minister and appointed by the Commission as having practical knowledge of and experience in one or more of the fields of urban and regional planning, commerce and industry, engineering, surveying, valuation, transport, housing, heritage, environmental conservation, natural resource management, urban design, the planning and provision of community services or infrastructure; and
- (f) a person approved by the Minister and appointed by the Commission to represent the interests of local governments; and
- (g) such other person or persons as the Commission, after obtaining the approval of the Minister, appoints from time to time.

### **Delegated Authority (Del 2017/01) Powers of Committee**

#### *Planning and Development Act 2005 Section 16(1)*

- 2.1 Power to determine applications for approval to commence and carry out development lodged with or referred to the WAPC pursuant to the provisions of a region scheme.
- 2.2 Power to approve detailed plans requiring the subsequent approval of the WAPC as a condition of development approval pursuant to the provisions of a region scheme and power to confirm that conditions imposed by the WAPC on a development approval pursuant to the provisions of a region scheme have been complied with.
- 2.3 Power to determine whether or not proposals and the ongoing implementation of a region scheme comply with conditions (if any) applied pursuant to sections 48F and 48J of the *Environmental Protection Act 1986*.
- 2.4 Power to determine whether or not applications to commence and carry out development are of State or regional importance, or in the public interest, pursuant to any resolution of the WAPC made under a region scheme requiring such determination.
- 2.5 Power to request the Minister for Planning to approve the WAPC disregarding the advice of the Swan River Trust in whole or in part in relation to the approval of development of land within the Riverbank or Development Control Area as defined under the *Swan and Canning Rivers Management Act 2006* where the determining authority is the WAPC.
- 2.6 All functions of the WAPC as set out in -
  - (i) Sections 14(a), 14(c), 34, 97, 98, 100, 104, 105, 106, 107, 109, 110, 111, 134, 135, 136, 138, 139, 140, 142, 143, 144, 145, 147, 151, 153, 154, 157, 169, 185, 214, 215, 216 of the Act;
  - (ii) Planning and Development (Local Planning Schemes) Regulations 2015;
  - (iii) Regulations 21, 22, 24 and 27 of the Planning and Development Regulations 2009;
  - (iv) *Strata Titles Act 1985* or the provisions of a strata or survey-strata scheme;
  - (v) Strata Titles General Regulations 1996;
  - (vi) Section 52 and section 85 of the *Land Administration Act 1997*;
  - (vii) *Section 40 of the Liquor Control Act 1988*;
  - (viii) *Perry Lakes Redevelopment Act 2005*.
- 2.7 Power to determine requests for variations to plans of subdivision where WAPC approval is required pursuant to the provisions of an approved local planning scheme.
- 2.8 Power to provide comment on and grant approval to plans known generally as outline development plans, structure plans and similar plans, and to planning policies and similar documents or amendments thereto, requiring the approval or endorsement of the WAPC pursuant to the provisions of a local planning scheme.
- 2.9 Power to provide comments or advice on behalf of the WAPC to a local government or a redevelopment authority where a provision of a local planning scheme or a redevelopment scheme requires comments from the WAPC.

- 2.10 Power to execute and accept the benefit of easements in gross, covenants in gross, records on title and other instruments for dealings in land for subdivisions, strata subdivisions and developments in accordance with any applicable policy and legislation.
- 2.11 Power to make recommendations to the Minister for Planning in relation to requests from local governments to expend monies paid by subdividing land owners in lieu of setting aside free of cost to the Crown, areas of land for public open space, where such recommendations are in accordance with WAPC policy.
- 2.12 Power to determine whether or not a proposal is likely to have a significant effect on the environment pursuant to section 38(1) of the *Environmental Protection Act 1986* and to refer such proposal to the Environmental Protection Authority.
- 2.13 Power to waive or clear conditions affixed as conditions of approval.
- 2.14 Power to endorse diagrams and plans of survey and deposited plans involving the acquisition and resumption of land created pursuant to Part 11 of the Act and the *Land Administration Act 1997*.
- 2.15 Power to advise the Minister for Planning on any appeal or matter arising therefrom pursuant to Part 14 of the Act.
- 2.16 Power to defend and otherwise deal with applications for review lodged with the Administrative Tribunal and to appeal, defend, respond and otherwise deal with any matter that may be appealed to the Supreme Court on a question of law.
- 2.17 Power to defend, respond, appeal and otherwise deal with legal proceedings.
- 2.18 Power to prepare and approve, subject to the prior approval of the Minister for Planning, policies relating to planning matters and/or the functions of the WAPC, save and except for State Planning Policies under Part 3 of the Act.
- 2.19 Power to determine matters under Regional Interim Development Orders.
- 2.20 Such powers and functions of the WAPC as set out in-
  - (1) Part 5 and 8 of the Act and the Planning and Development (Local Planning Scheme) Regulations 2015 in relation to any Improvement Plan or Improvement Scheme; and
  - (2) Any gazetted Improvement Scheme;but excluding matters concerning –
  - (i) applications for approval to developments of State or Regional Significance;
  - (ii) scheme amendments relating to zoning (including amendments to the zoning table);
  - (iii) the preparation of a new Improvement Plan or Schemefor land within the City of Karratha, the Shire of Ashburton and the Shire of Broome to be designated by the Statutory Planning Committee as Anketell, Maitland, Ashburton North and Browse LNG Precinct Strategic Industrial Areas.

### **Quorum for meetings**

In accordance with the Western Australian Planning Commission (WAPC), Governance Guide – Standing Orders, Section 5.1 - Quorum for meetings:

*(2) A quorum for a meeting of a committee is at least 50 per cent of the number of current offices of members of the Committee.*

### **Disclosure of interests**

In accordance with the *Planning and Development Act 2005* and Section 4 of the Western Australian Planning Commission (WAPC), Governance Guide – Standing Orders, members of Committees (and certain employees) are required to disclose the following types of interests that they have or persons closely associated to them, have:

- direct and indirect pecuniary interests (financial);
- proximity interests (location); and
- impartiality interests (relationship).

A “**direct pecuniary interest**” is one where a member has an interest in a matter where it is reasonable to expect that the matter if dealt with by the Board or a Committee, or an employee in a particular way, will result in a financial gain, loss, benefit or detriment for the member.

An “**indirect pecuniary interest**” refers to an interest in a matter where a financial relationship exists between a member and another person who requires a WAPC decision in relation to the matter.

A “**proximity interest**” refers to an interest of a member, or close associate of the member, in a matter if the matter concerns –

- (a) a proposed change to a planning scheme affecting land that adjoins the person’s land;
- (b) a proposed change to the zoning or use of land that adjoins the person’s land; or
- (c) a proposed development, maintenance or management of the land or of services or facilities on the land that adjoins the person’s land.

An “**Impartiality interest**” means an interest that could, or could reasonably be perceived to, adversely affect the impartiality of the member having the interest and includes an interest arising from kinship, friendship, partnership or membership of an organisation or an association with any decision-making process relating to a matter for discussion before the Board or a Committee.

Members disclosing any pecuniary or proximity interests for an item cannot participate in discussion or the decision making procedure relating to the item and must leave the meeting room during the discussion of the item. Members disclosing an impartiality interest in an item must also leave the room during the discussion or the decision making procedure relating to the item unless the Committee, by formal resolution, allows the member to remain. The reason to allow a member to remain must be stated in the formal resolution and will be minuted.

### **Disclosure of representations**

Where a member has had verbal communication with or on behalf of a person with an interest in a matter which is before a meeting, the member is to disclose the interest.

Where a member is in receipt of relevant written material (including email) from or on behalf of a person with an interest in a matter which is before a meeting, the member is to table the material at the meeting for the information of members.



## Statutory Planning Committee

### Minutes

Meeting No. 7634  
Tuesday, 5 May, 2020

Members: David Caddy - Chairman WAPC  
Megan Adair - WAPC Appointee  
Vaughan Davies - Nominee of the Director General  
Kym Davis - Community Representative  
Lino Iacomella - WAPC Appointee  
Leonard Kosova - Local Government Representative  
Nina Lyhne - WAPC Appointee  
Marion Thompson - Professions Representative  
Ross Thornton - WAPC Appointee

Apologies: Paddi Creevey - Nominee of the Regional Minister

Others present: Bryce Bunny - Principal Planning Officer, Strategy and Engagement  
Christine Collins - Senior Planning Officer, Schemes and Amendments  
Sam Fagan - Manager, Commission Business  
Michelle Matthewman - Senior Commission Support Officer  
Damien Martin - A/Assistant Director General, Strategy and Engagement  
Odile May - Senior Policy Officer, Strategy and Engagement  
Cath Meaghan - Planning Director, Regional South  
Rohan Miller - Planning Director, Schemes and Amendments  
Leo Peter - Strategic GIS Analysis Team Leader, Strategy and Engagement  
Brett Pye - Senior Planning Officer, Schemes and Amendments  
Mathew Selby - Planning Director, Metro North  
Jacquie Stone - Director Policy, Policy and Projects  
Loretta Van Gasselt - Planning Manager, Strategy and Engagement

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#### 1. Declaration of opening

The Chairman declared the meeting open at 9:38am, acknowledged the people of the Noongar nation as the traditional owners and custodians of the land on which the meeting is taking place and welcomed members. The Chairman noted that all members were attending the meeting via Zoom video conference.

#### 2. Apologies

Paddi Creevey - Nominee of the Regional Minister

**3. Members on leave of absence and applications for leave of absence**

Nil.

**4. Disclosure of interests**

Mr Kosova declared an Indirect Pecuniary Interest on item 8.1 – Local Development Plan Approval – Lots 1-7 Tourmaline Ridge, Australind. Mr Kosova stated that the proponent Treendale Nominees are current clients of his private consultancy, LK Advisory. Members agreed Mr Kosova should not be present during the discussion/and or decision making procedure on the item.

**5. Declaration of due consideration**

All members indicated that they had received and considered the agenda items prior to the Statutory Planning Committee meeting.

**5.1 Questions from Members and Responses from DPLH staff**

**6. Minutes**

**6.1 Confirmation of minutes - Meeting No. 7632 on Tuesday, 31 March 2020**

**Moved by** Mr Iacomella  
**Seconded by** Ms Davis

*That the minutes of the Statutory Planning Committee meeting held on Tuesday, 31 March 2020, be confirmed as a true and correct record of the proceedings.*

**The motion was put and carried**

**6.2 Confirmation of minutes - Meeting No. 7633 on Tuesday, 7 April 2020**

**Moved by** Ms Davis  
**Seconded by** Mr Kosova

*That the minutes of the Statutory Planning Committee meeting held on Tuesday, 7 April 2020, be confirmed as a true and correct record of the proceedings.*

**The motion was put and carried**

**7. Deputations and presentations**

**7.1 Urban Tree Canopy Digital Dashboard (15 minutes)**

**Presenters: Bryce Bunny and Leo Peter**

Mr Bunny and Mr Peter presented the Urban Tree Canopy Digital Dashboard to the Statutory Planning Committee. Mr Bunny stated that the Urban Tree Canopy Digital Dashboard is a collaboration with the CSIRO Urban Monitor program and the Department of Planning, Lands and Heritage funded by the Western Australian Planning Commission. Mr Bunny stated that the dashboard is a collection of data from 2009,

2014 and 2016 from across the Perth and Peel region using aerial photography which gives a 3D perspective to the urban canopy.

Mr Bunny discussed how the dashboard can be filtered by suburb, that canopy data is divided into street blocks, roads and parks. Mr Bunny discussed that canopy can be stratified in different levels of heights, and that those can be broken down further in the dialogue box with information on the percentage of canopy cover versus no cover, canopy cover by height, ownership and the area of land allocated to land use category portions.

Mr Peter discussed the changes in canopy cover and how there is a locality slider in which the user can choose an area and look at certain years or all years with visuals in canopy height and the difference between years and trends over time. Mr Peter discussed the interactive maps and the ability to highlight selected areas. Mr Peter discussed the ability to look at over all local government areas and canopy loss and gain between hectares and how canopy has changed over a period of time.

Members discussed the Urban Forrest Strategy and the outcome of increasing canopy cover in Perth and Peel. Members discussed the communication strategy required to accompany the release of the dashboard including media partner questions, canvas questions, frequently asked questions outlining how the dashboard should be used, with the benefit to assist in Local Government planning, and the nexus between tree cover canopies infill and Greenfields.

Members discussed how to integrate the dashboard and that the intent is not to compare local authorities and the importance of the messaging behind the work. Members discussed how climate change is closely linked to urban heat, and that the dashboard combined with surface temperature mapping would be useful to identify areas that require re-vegetation to relieve heat spots in suburbs. Members discussed the State Climate Policy and how the project is identified as a measure for dealing with state climate change issues. Members discussed that the communication strategy will align closely with the work of the Western Australian Local Government Association (WALGA).

Members discussed higher density issues and how the dashboard could be a base for Design WA in areas regarding deep soil zones.

**7.2 City of Swan - Local Planning Scheme No. 17, Amendment No. 171 - Lot 800 (168) Morrissey Road, Bullsbrook (Item 9.2)**

**Presenters: Dan Pearce - Roberts Day and Zac Cockerill - Strategen - JBS&G**

Mr Cockerill and Mr Pearce presented to the statutory Planning Committee to clarify aspects of the planning report in regards to the bushfire regulations. Mr Pearce stated that they wished to highlight the vehicle access of the development which is supported by the Council of the City of Swan.

Mr Cockerill discussed the development design which is central to the site, outlining that there are bushfire access buffers around the outside of the site and noted the bushfire hazard assessment levels.

Mr Cockerill stated that the development of the site can be delivered with areas of moderate to low bushfire hazard which can deliver BAL 29 or lower outcomes. Mr Cockerill stated that access around the perimeter of the site is achieving asset protection zones and that there is opportunity for vehicle access and connection to Morrissey Road to the north of the site, and that there is future access planning for the south of the site to Sounness Drive.

Mr Cockerill stated that various options were presented to the City of Swan regarding how access could be rolled out and that the Council preference was a combination of emergency access and private driveways progressing through the site and ultimately delivering connectivity. Mr Cockerill stated that the water supply would be delivered as standard reticulated engineering outcomes. Mr Cockerill stated that the bushfire management of the site can be engineered to comply as part of the development application phase and that it will result in another bushfire and emergency assessment plan.

## **ITEMS FOR DECISION**

### **8.1 Local Development Plan Approval - Lots 1-7 Tourmaline Ridge, Australind (158048)**

**Mr Kosova declared a Indirect Pecuniary Interest on this item and left the meeting at 10:10am**

Members agreed to endorse the recommendation of the Department of Planning, Lands and Heritage.

**Moved by Ms Adair**

**Seconded by Mr Iacomella**

*That the Statutory Planning Committee resolves to:*

- 1. approve the amended deemed-to-comply provision for 5.3.1 outdoor living areas C1.1 and 5.4.3 outbuildings C3 proposed by the Local Development Plan for Lots 1-7 Tourmaline Ridge, Australind, as shown in Attachment 2, pursuant to Clause 7.3.2 of State Planning Policy 7.3 – Residential Design Codes, subject to modifying provision 6 of the Local Development Plan to remove the word 'the' from the phrase 'to the all'.*

**The motion was put and carried**

**Mr Kosova returned to the meeting at 10:11am**

### **9.1 Shire of Gingin - Local Planning Scheme No. 9, Amendment No. 21 - Lot 201 Brand Highway, Ginginup (TPS/2494)**

**THIS ITEM IS CONFIDENTIAL**

**The Chairman declared a break at 10:27am**

**The meeting was resumed at 10:35am with all members present**

- 9.2 City of Swan - Local Planning Scheme No. 17, Amendment No. 171  
- Lot 800 (168) Morrissey Road, Bullsbrook (TPS/2512)**

**THIS ITEM IS CONFIDENTIAL**

- 9.3 Draft Position Statement - Cash-in-Lieu of Public Open Space  
(PLH2020P0265)**

**THIS ITEM IS CONFIDENTIAL**

**10. Reports for noting**

Nil.

**11. Stakeholder engagement and site visits**

Nil.

**12. Urgent or other business**

Nil.

**13. Items for consideration at a future meeting**

Nil.

**14. Meeting closure**

The next ordinary meeting is scheduled for 9:30am, on Tuesday, 19 May 2020.

There being no further business before the Committee, the Chairman thanked members for their attendance and declared the meeting closed at 10:52am.

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CHAIRMAN

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DATE



<b>REPORT TO</b>	Statutory Planning Committee		
<b>Meeting date</b>	19 May 2020	<b>File number</b>	158552
<b>Subject</b>	Reconsideration of Conditions 2 and 3 of Freehold Subdivision - Lot 900 (No. 404) Orrong Road, Welshpool		
<b>Purpose</b>	Requires WAPC decision		
<b>Title of Approving Officer</b>	Planning Director - Metro Central		
<b>Agenda Part for Reports (All parts are confidential unless otherwise stated)</b> SPC - Non-Confidential (To be published to the website)			
<b>SITE-SPECIFIC DETAILS</b>			
<b>Region/s</b>	Perth		
<b>Local government/s</b>	City of Canning		
<b>Landowner/Consultant</b>	Shane Simons, Total Project Consultants Warrington 404 Orrong Pty Ltd, Landowner		
<b>Bushfire Prone Area</b>	NO		
<b>Statutory Planning Committee - SMART/Structure Plans only</b>			
<b>Region scheme zoning</b>	Urban		
<b>Local Scheme Zoning</b>	General Industry		
<b>Property Address</b>	Lot 900 (No. 404) Orrong Road, Welshpool		
<b>SUMMARY</b>			
<p>On 17 February 2020 the WAPC (under delegated authority) approved a two-lot freehold subdivision (<b>Attachment 1 - Plan of Subdivision</b>) at Lot 900 (No. 404) Orrong Road, Welshpool (the subject lot) subject to conditions.</p> <p>The applicant seeks reconsideration of conditions 2 and 3, which respectively relate to the provision of a right-of-carriageway easement providing for alternative access to the site in the future, and for the provision of drainage easements as deemed necessary by the City of Canning.</p> <p>The right-of-carriageway easement required by condition 2 relates to Planning Control Area 142 (PCA 142), which provides for the future upgrading of Orrong Road. This will result in the need for all access to Orrong Road to be removed, at which point an alternative access point to the site will be necessary.</p> <p>Following consideration of the applicant's request, it is recommended that condition 2 be retained and condition 3 removed.</p> <p>The application is referred to the Statutory Planning Committee (SPC) for determination as officers do not have delegation to determine a reconsideration request when the recommendation includes partial refusal of the request.</p>			

## DETAILS OF PROPOSAL

It is proposed to subdivide a 4.7ha lot to create two general industry lots of 1.5ha and 3.2ha. Both proposed lots contain various commercial buildings, including a service station, which are to be retained (**Attachment 2 - Aerial Location Plan**). The proposed lots both have frontage and access to Orrong Road.

On 17 February 2020, conditional approval was granted to subdivide the land, as described above. On 16 March 2020 the WAPC received a reconsideration request to remove conditions 2 and 3 of the approval, which are as follows:

- 2. An easement, in accordance with Section 136C of the Transfer of Land Act 1893, for the benefit of proposed lot 301 is to be placed on the certificate of title of proposed Lot 300 specifying access rights that connects to that part of proposed Planning Control Area 142 which adjoins Anvil Way. Notice of this easement is to be included on the diagram or plan of survey (deposited plan) and is to state as follows:*

*“Easement Benefit for Right-of-Carriageway Purposes”  
(Local Government)*

- 3. Drainage easements and reserves as may be required by the local government for drainage infrastructure being shown on the diagram or plan of survey (deposited plan) as such, granted free of cost, and vested in that local government under Sections 152 and 167 of the Planning and Development Act 2005. (Local Government)*

The applicant has sought review of the conditions on the following grounds:

- In relation to condition 2, Planning Control Area 142 (PCA142) has not been publicly advertised and so is not considered seriously entertained. The subdivision is not generating any need for alternative access to be provided from Orrong Road, or for the existing access to be modified.
- In relation to condition 3, the subdivision does not generate the need for any new or additional drainage infrastructure as it relates to an existing built out site. Any easements that may be required for drainage pipes across the lots is captured by condition 7 of the approval.

A plan showing the location of the easement required by condition 2 and the applicants full justification letter are provided for your review (**Attachment 3 - Easements Plan** and **Attachment 4 - Justification Letter**).

## BACKGROUND

Main Roads WA maintains its objection to the subdivision as outlined in its original response dated 30 January 2020. The reasons are summarised as follows:

- Main Roads planning for Orrong Road consists of an expressway system which will prioritise free-flowing movement along Orrong Road. This is seriously entertained with the concept and PCA 142 supported by the WAPC and awaiting Minister of Planning endorsement (now approved by the Minister and gazetted). The proposal fails to demonstrate alternative access to the proposed lots in accordance with Development Control Policy 5.1.
- The subject lot is currently accessed via Lots 6 and 901 (Nos. 11 and 13) Colin Jamieson Drive to the south of the site. This access arrangement should be formalised.
- Main Roads intends that access from the subject lot to Anvil Way, as provided for by PCA

142, be formalised to provide alternative access to the lots.

PCA 142, including the Anvil Way link to provide alternative access to the subject lot, was approved by the Minister for Planning on 9 March 2020 and gazetted on 20 March 2020 (**Attachment 5 - MRS with PCA 142 Map**).

The City of Canning (the City) advises they support condition 2 being retained on the approval. The City has also advised that should the condition be removed, and the easement not be required as part of the subdivision, they will require it be created as part of any future development application. Any future purchasers of the property will be advised of the requirement also.

In regard to condition 3, the City has advised the scope of this condition can be captured through a future development application, and its removal is not objected to.

#### KEY ISSUES

<b>Consistency with WAPC Policies &amp; Planning Framework</b>	<i>Planning and Development Act 2005</i>	Fully consistent
	<i>Development Control Policy 5.1 - Regional roads (vehicular access)</i>	Fully consistent (as recommended)

#### PLANNING ASSESSMENT

##### Condition 2 - Right-of-Carriageway Easement to Anvil Way extension

The applicant has provided justification for the removal of condition 2 as PCA 142 is not a seriously entertained proposal and the subdivision itself does not generate the need for alternative access to the provided. Given that the PCA has been approved and gazetted by the Minister since the approval of the subdivision, it was not only seriously entertained, but its approval was imminent and it is now an approved plan under section 112 of the *Planning and Development Act 2005*.

In relation to the need for alternative access, at common law, for a planning condition to be legally valid it needs to satisfy the 'Newbury test', which was outlined by the High Court in *Western Australian Planning Commission v Temwood Holdings Pty Ltd* [2004] HCA 63 at paragraph [57], citing the House of Lords case of *Newbury District Council v Secretary of State for the Environment* [1981] AC 578:

1. *The condition is for a planning purpose and not for any ulterior purpose.*
2. *The condition fairly and reasonably relates to the development permitted.*
3. *The condition is not so unreasonable that no reasonable planning authority could have imposed it.*

The applicant contends that the second limb of the *Newbury* test, requiring planning conditions to have a sufficient 'nexus' to the planning proposal, has not been met in the case of condition 2.

In the case of *Reid v Western Australian Planning Commission* [2016] WASCA 181 at paragraph [37], the Court explained that, in the context of subdivision approval, the second limb of the *Newbury* test requires the establishment of a direct connection between the planning purpose for which the condition was imposed and the likely or possible consequences of the subdivision. This connection must be established as a matter of fact and will not be established simply because the application for subdivision approval represents an opportunity to impose a condition in the pursuit of a proper planning purpose.

The proposed subdivision is providing an additional lot with frontage and access to Orrong Road, an existing Primary Regional Road in the Metropolitan Region Scheme. The primary purpose of the PCA 142 is to protect additional land required for the future upgrade of Orrong Road. Further,

*Development Control Policy 5.1 - Regional roads (vehicular access)* identifies that there should be no vehicular access to or from properties abutting a regional road, and that existing access arrangements should be rationalised where possible. Where an alternative access is available, then no access should be permitted to the regional road.

In this case, access to Orrong Road is existing and it is not proposed to remove this access as part of this subdivision. However, the PCA provides for alternative access from Anvil Way, at the time when the access from Orrong Road will not be permitted. Condition 2 facilitates the alternative access, ensuring that in the future, once the planned upgrades to Orrong Road are completed, both lots will have safe and suitable access in place. If condition 2 was not imposed, it is likely that the original application for subdivision would have been refused.

Given that PCA 142 has been approved by the Minister for Planning, and the policy objective to provide alternative access arrangements to primary regional roads where possible, condition 2 should be retained on the approval.

### Condition 3 - Drainage Easements

The City has advised that condition 3 was recommended, and subsequently imposed, as the drainage for Lot 301 runs through the pipes associated with Lot 300. The City has subsequently advised that the scope to capture easements currently required by condition 3, can be captured as part of a future development application.

Further to this, a connection to drainage is required by condition 7 of the subdivision approval, which is not being reconsidered. Any easements required to provide this connection, will be captured by condition 7, which requires, "Arrangements being made with the Water Corporation for the drainage of the land either directly or indirectly into a drain under the control of that body." As such, condition 3 is recommended to be removed from the approval.

### Conclusion

Based on the above, it is recommended that in order to ensure a comprehensive approach to access over the subject lots and to actively work to achieve the intent of PCA 142, condition 2 of the approval should be retained. Condition 3 can be removed as per the comments of the City.

## **RECOMMENDATION**

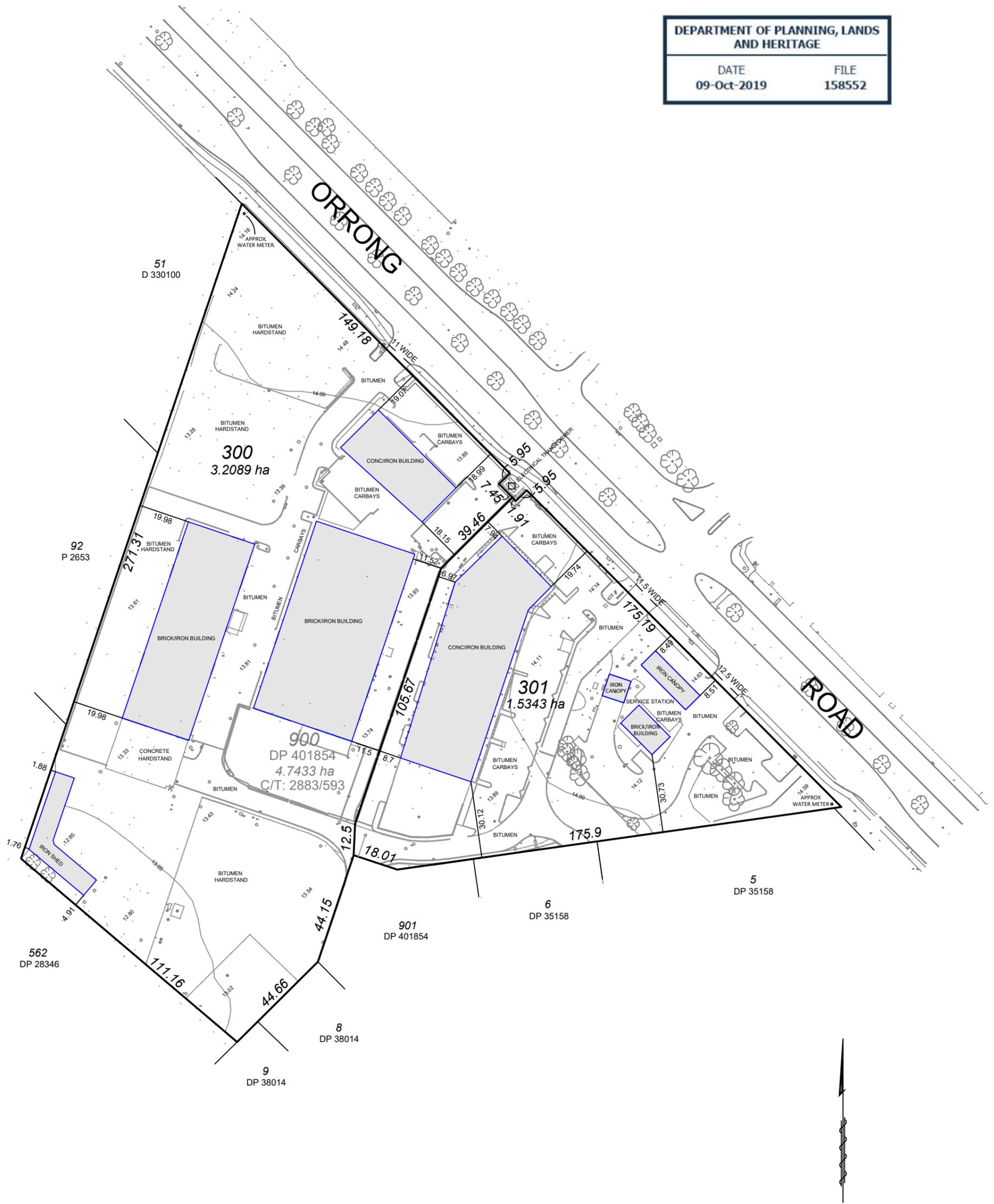
***The Statutory Planning Committee has reconsidered its decision dated 17 February 2020 to approve the application for subdivision at Lot 900 (No. 404) Orrong Road, Welshpool (WAPC Ref: 158552) and resolves to:***

- 1. Refuse the application to delete condition 2; and***
- 2. Approve the application to delete condition 3.***

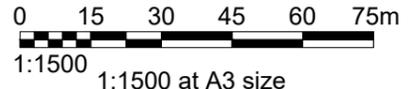
## **ATTACHMENTS**

Attachment 1 - Plan of Subdivision  
Attachment 2 - Aerial Location Plan  
Attachment 3 - Easements Plan  
Attachment 4 - Justification Letter  
Attachment 5 - MRS with PCA 142 Map

DEPARTMENT OF PLANNING, LANDS AND HERITAGE	
DATE	FILE
09-Oct-2019	158552



**NOTE: SITE IMPROVEMENTS TO BE RETAINED**



REV	DATE	DESCRIPTION	DRAWN	SURVEYOR	APPROVED
A	24/04/2019	CONCEPT PROPOSAL PLAN	AC	-	SBS
B	10/05/2019	CONCEPT PROPOSAL PLAN AMENDED	AC	-	SBS

CLIENT:	PROJECTION	LIMITATIONS OF USE
WARRINGTON PROPERTY	HORIZONTAL : LOCAL VERTICAL : Approx. AHD	The contents of this plan are current and correct as of the date stated within the revision panel. All consultants and persons intending to use this data should satisfy themselves of the plans currency by contacting Total Project Consultants.

**tpc** Total Project Consultants  
 p: 08 6141 3154 f: 08 6141 3101  
 e: admin@totalprojectconsultants.com.au

- project managers
- licensed surveyors
- town planning

**CONCEPT SUBDIVISION PLAN OF LOT 900 ON DP 401854 No 404 ORRONG ROAD, WELSHPOOL**

JOB No.	J2018157
PLAN No.	J2018157 02
SCALE:	1 : 1500 @ A3
REVISION:	B
SHEET:	1 OF 1

Legend  
 Cadastre (View 1)



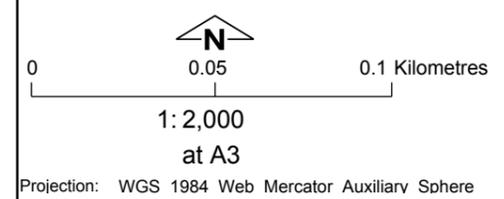
Notes:  
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Map was produced using DPLH's InQuery.

# InQuery Map

**DPLH BUSINESS USE ONLY**

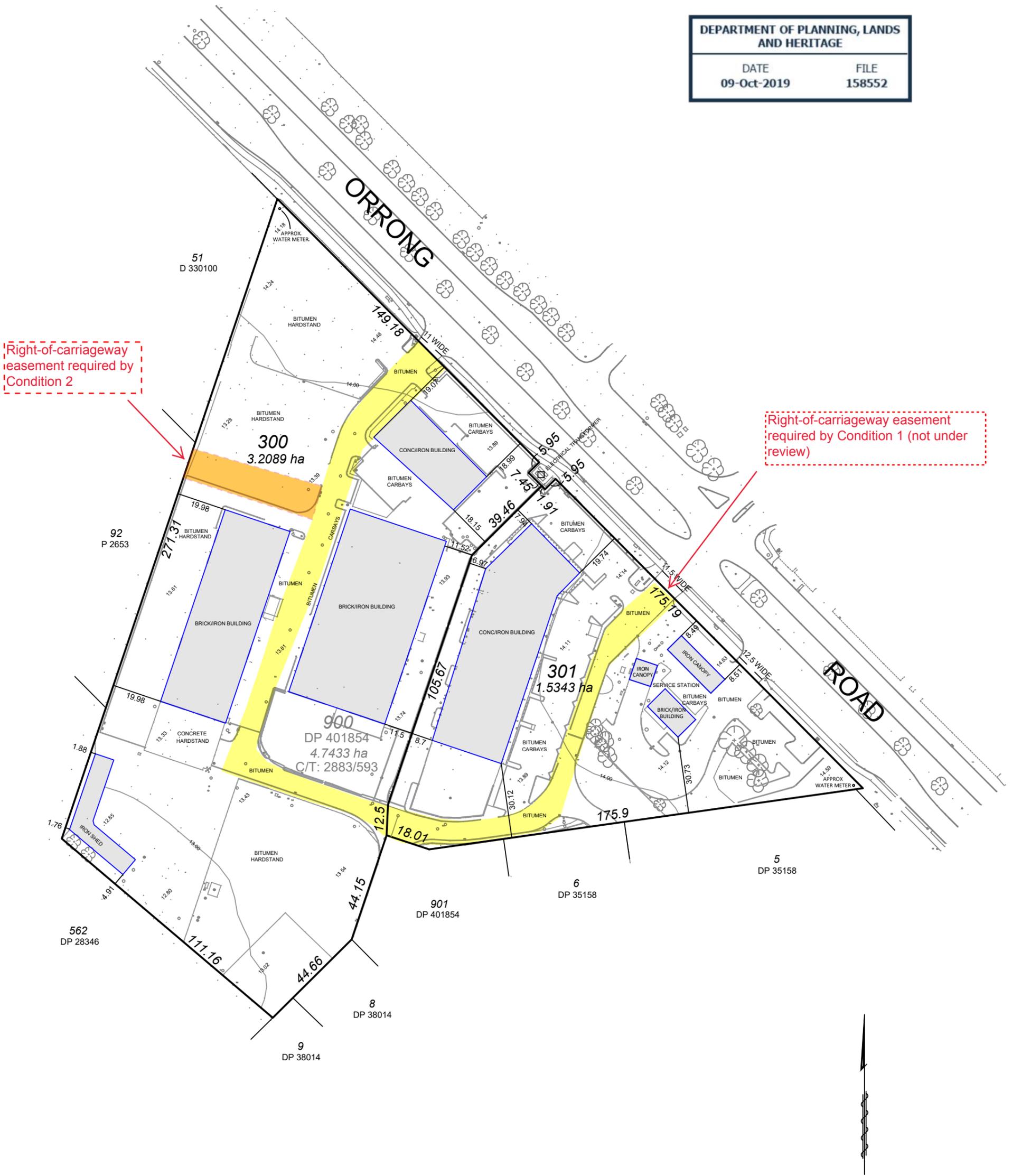
Internal Spatial Viewer



Projection: WGS 1984 Web Mercator Auxiliary Sphere

Date produced: 22-Apr-2020  
SPC Agenda Page 18

DEPARTMENT OF PLANNING, LANDS AND HERITAGE	
DATE	FILE
09-Oct-2019	158552



**NOTE: SITE IMPROVEMENTS TO BE RETAINED**

REV	DATE	DESCRIPTION	DRAWN	SURVEYOR	APPROVED
A	24/04/2019	CONCEPT PROPOSAL PLAN	AC	-	SBS
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CLIENT:	PROJECTION HORIZONTAL : LOCAL VERTICAL : Approx. AHD	LIMITATIONS OF USE The contents of this plan are current and correct as of the date stated within the revision panel. All consultants and persons intending to use this data should satisfy themselves of the plans currency by contacting Total Project Consultants.
WARRINGTON PROPERTY		

**tpc** Total Project Consultants  
 p: 08 6141 3154 f: 08 6141 3101  
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CONCEPT SUBDIVISION PLAN  
 OF LOT 900 ON DP 401854  
 No 404 ORRONG ROAD,  
 WELSHPOOL

JOB No.	J2018157
PLAN No.	J2018157 02
SCALE:	1 : 1500 @ A3
REVISION:	B
SHEET:	1 OF 1

Our ref BF:JS:19306777

12 March 2020

Shane Simons  
Managing Director  
Total Project Consultants  
**By Email: shane@totalprojectconsultants.com.au**

Level 27, Exchange Tower  
2 The Esplanade  
Perth WA 6000 Australia

PO Box Z5025, St Georges Terrace  
Perth WA 6831

T +61 8 9404 9100  
F +61 8 9300 1338

Dear Shane

### Review of Conditions - WAPC Subdivision Approval No 158552 – Lot 900 Orrong Road, Welshpool

- 1 I write with regard to the conditional subdivision approval issued by the Western Australian Planning Commission (**Commission**) on 17 February 2020 in respect Lot 900 on Deposited Plan 401854, No. 404 Orrong Road, Welshpool (**Subject Land**) in application number 158552 (**Approval**).
- 2 As instructed by the owners of the Subject Land, I have review the conditions of the Approval in order to determine their validity and prospects of successful review if challenged.
- 3 In summary, I am of the view that conditions 2 and 3 of the Approval fail the necessary legal tests for validity of planning conditions, and are amenable to a successful review.
- 4 I understand that this letter will be appended to an application for review, made pursuant to section 151(1) of the *Planning and Development Act 2005 (PD Act)*.
- 5 Reasoning for the view expressed in paragraph 3 above, is set out below:

#### Condition 2

- 6 Condition 2 states:

*An easement, in accordance with Section 136C of the Transfer of Land Act 1893, for the benefit of proposed lot 301 is to be placed on the certificate of title of proposed Lot 300 specifying access rights that connects to that part of proposed Planning Control Area 142 which adjoins Anvil Way. Notice of easement is to be included on the diagram or plan of survey (deposited plan) and is to state as follows:*

*"Easement Benefit for Right-of-Carriageway Purposes'*

*(Local Government)*

- 7 Further, Advice Note 1 states:

*In regard to Conditions 1 and 2, the applicant is advised that Orrong Road is intended to be developed as an expressway system prioritising free-flowing movement along the regional road corridor and a review of access arrangements is likely to occur. It is possible that in the future no crossovers from these lots onto Orrong Road will be permitted and other access options need to be considered.*

- 8 Relevantly, there are no publicly available or advertised proposals regarding proposed planning control area 142, the conversion of Orrong Road to an expressway, or the taking of land or closure of crossovers to Orrong Road.

- 9 As a result, all of the matters summarised in paragraph 8 are considered to be 'irrelevant considerations' in the context of an application for subdivision approval, and cannot lawfully be relied upon by the Commission to support conditions of approval of subdivision.
- 10 In summary, all administrative decisions must be determined on the legal and policy positions as it stands at the date of a decision, not as it might stand in the future. The exception to this principle in a planning context is where a planning proposal is 'seriously entertained'. A planning proposal or instrument is considered to be 'seriously entertained', and therefore becomes a relevant consideration, only once it has been formally advertised. If a proposal has not been publicly advertised, it is not considered to be seriously entertained, and is an irrelevant consideration in the exercise of administrative discretion. This is known as the 'Coty' principle, and arises from comments of Hardy J in the case of **Coty (England) Pty Ltd v Sydney City Council** (1957) 2 LGRA 117 at [125], which was first accepted in the Western Australian jurisdiction in **Tang v City of Stirling** [1981] 5 APA 161 at [172], and has been followed many times since in both State Administrative Tribunal and Supreme Court contexts.
- 11 Whether or not a planning proposal has been advertised, and therefore is considered seriously entertained, is a threshold question. In this case, none of the matters summarised in Paragraph 8 are seriously entertained planning proposals, and as a result, it is my view that Condition 2 is amenable to a successful review.
- 12 Notably, even if the Commission were to move, in the context of a review, to make those matters summarised in Paragraph 8 seriously entertained, the condition would still, in my view, be amenable to a successful review. This is because the mere advertising of a draft proposal does not elevate it to some sacrosanct status above the respondents other policies, the provisions of the planning framework, or other tests for validity of condition making: See eg **Kimber and Western Australian Planning Commission** [2007] WASAT 31 at [51]. The weight to be applied by a decision maker to a draft (advertised) planning instrument was first set out in **Nicholls and Western Australian Planning Commission** [2005] WASAT 40 at [59], and in summary considers:
- (a) The degree to which the draft addresses the specific application;
  - (b) The degree to which the draft is based off sound planning principles;
  - (c) The degree to which ultimate approval could be regarded as 'certain'; and
  - (d) The degree to which ultimate approval could be regarded as 'imminent'.
- 13 Even if the matters summarised in Paragraph 8 were publicly advertised, in my view it would be years until it was the case that such matters could be progressed with sufficient certainty and imminence that they would facilitate a condition of the type imposed by the Commission in Condition 2 in this case. (See further commentary of Judge Parry and Member B De Villiers in **McDonald's Australia Limited and Presiding Member of the Metropolitan Central Joint Development Assessment Panel** [2015] WASAT 146 at [91]-[106] regarding the thresholds for certainty and imminence).
- 14 Further, even if the Commission were to move to make those matters summarised in Paragraph 8 'seriously entertained', the condition would still, in my view, be amenable to a successful review, as the subdivision itself does not generate the need for alternative access to be provided.
- 15 The subdivision relates to land which is an existing built out site, with existing points of access to the road network and would therefore fail the second limb of the 'Newbury Test'. The Newbury Test for determining the validity of a conditions of subdivision approval arises from the decision of **Newbury District Council v Secretary of State for the Environment** [2981] AC 578, as affirmed by the High Court of Australia in **Western Australian Planning Commission v Temwood Holdings Pty Ltd** (2004) 221 CLR 30 at [57]. The Newbury Test has three separate limbs, all of which must be satisfied independently, these are:

- (a) A condition must be for a planning purpose and not for an ulterior purpose;
  - (b) A condition must fairly and reasonably relate to the proposed development; and
  - (c) A condition must not be so unreasonable that no reasonable planning authority could have imposed it.
- 16 The Western Australian Court of Appeal in **Reid v Western Australian Planning Commission** [2016] WASCA 181 at [36]-[45] clarified that the second limb of the Newbury Test requires an establishment of a direct connection between the planning purpose for which the condition was imposed and the likely or possible consequences of the proposed subdivision. This connection must be established as a matter of fact and will not be established simply because the application for subdivision approval represents an opportunity to impose a condition in the pursuit of a proper planning purpose.
- 17 In this case, while such a condition may sought to be imposed for a proper planning purpose (if the matters expressed in paragraph 8 were seriously entertained), it is my view that the condition would still fail the second limb of the Newbury Test as the subdivision itself does not generate the need for access to be modified (the future 'need' may be generated by regional traffic – a matter unrelated to this subdivision).

### Condition 3

- 18 Condition 3 states:

*Drainage easements and reserves as may be required by the local government for drainage infrastructure being shown on the diagram or plan of survey (deposited plan) as such, granted free of cost, and vested in that local government under Sections 152 and 167 of the Planning and Development Act 2005 (Local Government).*

- 19 In my view, condition 3 fails the second limb of the Newbury Test, as the subdivision itself does not appear to generate the need for any new or additional drainage sumps or reserves to be provided. The subdivision relates to an existing built out site, with existing sufficient drainage capacity to service the existing development on the Subject Land. To the extent that easements may be required for drainage pipes across the proposed lots, this is already captured by Condition 7 of the Approval.

### Conclusion

- 20 In my view, for the reasons set out above, Conditions 2 and 3 of the Approval are amenable to a successful review and should be deleted. If you have any questions in this regard, please call us.

Yours sincerely

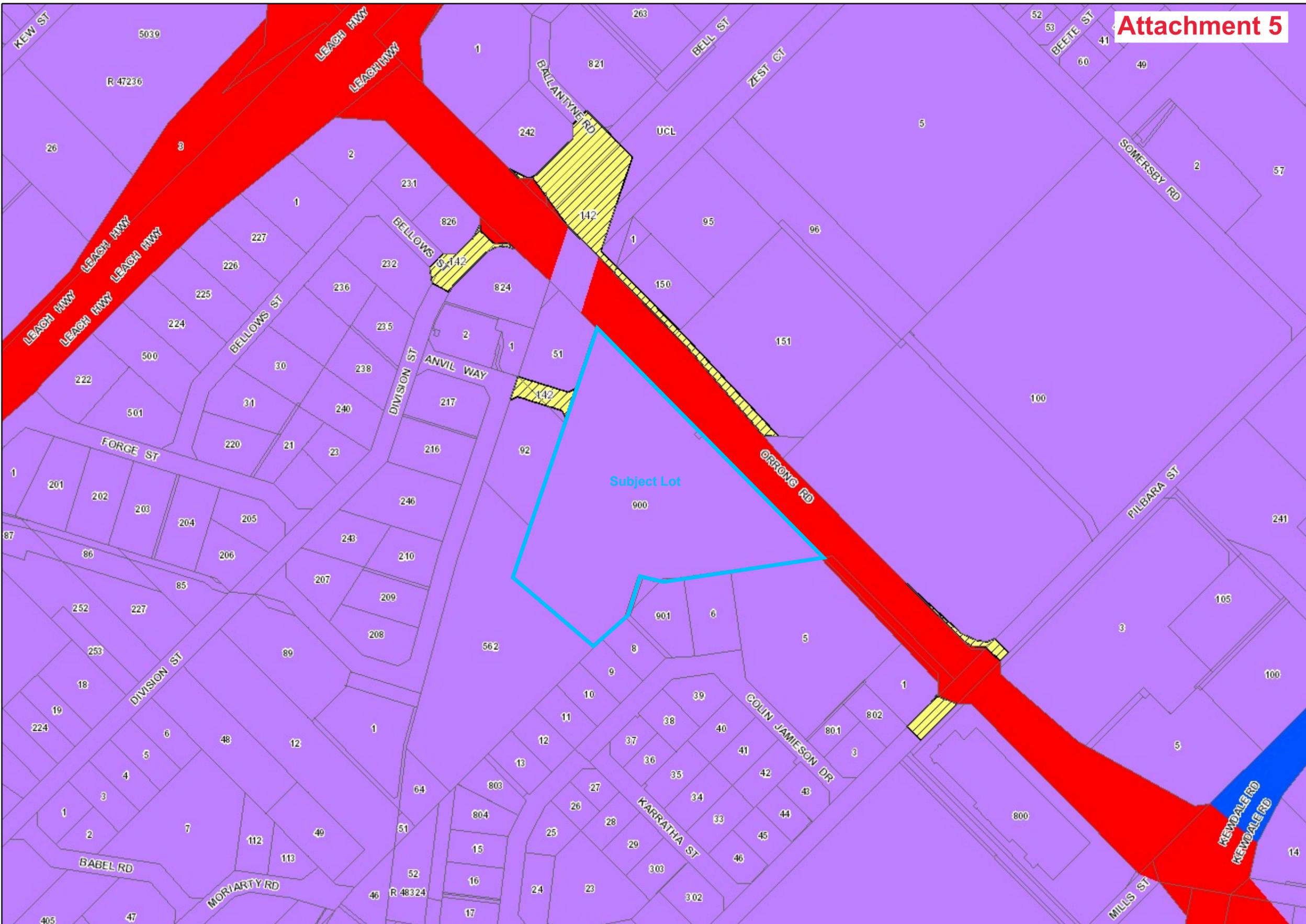


**Brendan Foley**  
Senior Associate  
T +61 8 9404 9126  
M +61 402 577 770  
E bfoley@tglaw.com.au



**Julius Skinner**  
Partner  
T +61 8 9404 9127  
M +61 402 836 551  
E jskinner@tglaw.com.au

- Legend**
-  Cadastre (View 1)
  -  Planning Control Area
  -  Region Scheme Boundary
- Region Scheme Zones and Reserves**
-  Industrial
  -  Other regional roads
  -  Primary regional roads

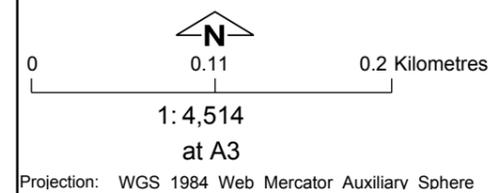


Subject Lot

# InQuery Map

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Internal Spatial Viewer



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Date produced: 21-Apr-2020  
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<b>REPORT TO</b>	Statutory Planning Committee		
<b>Meeting date</b>	19 May 2020	<b>File number</b>	TPS/2593/1
<b>Subject</b>	Town of Port Hedland Draft Local Planning Strategy – WAPC Certification to Advertise		
<b>Purpose</b>	Requires WAPC decision		
<b>Title of Approving Officer</b>	Planning Director – Regional North		
<b>Agenda Part for Reports (All parts are confidential unless otherwise stated)</b>			
SPC - Non-Confidential (To be published to the website)			
<b>SITE-SPECIFIC DETAILS</b>			
<b>Region/s</b>	Pilbara		
<b>Local government/s</b>	Town of Port Hedland		
<b>Landowner/Consultant</b>	Various / Element		
<b>Location map</b>	Attachment 1 – Draft Strategy Maps		
<b>Bushfire Prone Area</b>	YES		
<b>SUMMARY</b>			
<p>The Town of Port Hedland has submitted their draft Local Planning Strategy ('the Strategy') to the Western Australian Planning Commission (WAPC) for certification prior to advertising.</p> <p>The Strategy covers the whole of the Town of Port Hedland's local government area, and it is intended to provide the strategic vision for the Shire for the next 10-15 years. The Strategy identifies the key issues facing the Town; establishes strategic aims and associated actions; and includes Strategy maps.</p> <p>The Strategy seeks to apply State planning policy; establish direction for the location of future development areas; and provide the rationale for a number of matters relating to land use.</p> <p>It is recommended that the WAPC certify the Strategy as being suitable for advertising, subject to the modifications being undertaken as set out in the attached Schedule of Modifications (Attachment 4).</p> <p>The Strategy is presented to the Statutory Planning Committee for consideration as the Department of Planning, Lands and Heritage is not delegated under the <i>Planning and Development Act 2005</i> to certify a local planning strategy as being suitable for advertising.</p>			

**DETAILS OF PROPOSAL**

The Strategy is divided into two parts as per the Local Planning Manual recommendations. Part I outlines the strategies; purpose; structure; vision; objectives; the strategic plan; and associated maps. Part II provides planning context of the strategy as well as the Town’s population profile and key issues present.

The strategy itself is based around three overarching themes identified within Part I as follows;

- ‘Our Identity’ (Community Infrastructure)
- ‘Our Prosperity’ (Industrial, Commercial, Tourism)
- ‘Our Built and Natural Environment’ (Development, Future Planning, Environmental and Heritage Management)

These themes then proceed to inform the strategic plan throughout the remainder of Part I.

**BACKGROUND**

The Town of Port Hedland is located 1,765km north of Perth and covers an area of approximately 10,600km<sup>2</sup> comprising of two major residential and business centres: Port Hedland and South Hedland (Attachment 1). The Pilbara Planning and Infrastructure Framework (2012) designates Port Hedland as a Pilbara City.

Census (2016) figures issued by the Australian Bureau of Statistics indicate a Town population of 15,064 persons as of 29 April 2020. Census population statistics show that from 2011 to 2016 the Town’s population declined at a rate of 0.8% per year.

The Town of Port Hedland’s current local planning strategy (the Pilbara’s Port City Growth Plan) was endorsed by the WAPC in December 2012. This plan was prepared at the height of the mining and construction boom and included aspirations of rapid city growth scenarios based on the economic and population growth projections of the time.

Since endorsement of the Pilbara’s Port City Growth Plan, planning and environmental policies have changed as well as the unanticipated reduction in population growth rate. This has led to the need for a new local planning strategy.

At its meeting on 25 March 2020 the Town of Port Hedland resolved to provide a copy of the Strategy (Attachment 2) to the WAPC to seek certification to publicly advertise in line with regulation 12(4) of the Regulations.

Further, pursuant to regulation 21(4) of the Regulations, the Town has received WAPC (delegated) approval to advertise its draft Local Planning Scheme No. 7.

**KEY ISSUES**

<b>Consistency with WAPC Policies &amp; Planning Framework</b>	<i>Planning and Development (Local Planning Schemes) Regulations 2015</i>	Some inconsistency, variation not recommended  Modifications recommended to ensure the Strategy achieves the requirements of Regulation 11(2)(c) of the Regulations
	SPP 1.0 - State Planning Framework; SPP 2.0 - Environment and Natural Resources; SPP 2.4 - Basic Raw Materials; SPP 2.5 - Land Use Planning in Rural Areas; SPP 2.6 - State Coastal Planning;	Fully consistent

	SPP 2.7 - Public Drinking Water Source; SPP 2.9 - Water Resources; SPP 3.0 - Urban Growth and Settlement; SPP 3.2 - Aboriginal Settlements; SPP 3.4 - Historic Heritage Conservation; SPP 3.7 - Planning for Bushfire Management	
<b>Government Considerations</b>	Other Improvement Plan No. 50: Port Hedland West End Draft Port Hedland West End Improvement Scheme No. 1	Fully consistent
<b>Consultation</b>	N/A	

## PLANNING ASSESSMENT

### Inconsistencies with Regulation 11(2)(c) of the Regulations

Regulation 11(2) of the Regulations requires local planning strategies to:

- (a) set out the long-term planning directions for the local government;
- (b) apply State and regional planning policies; and
- (c) provide the rationale for the zones and other provisions of the local planning scheme.

The Strategy generally complies with Regulation 11(2) and draws together the planning framework for the whole local government area by considering future land supply needs for the expected population, and proposing various strategies and actions to be undertaken to ensure adequate employment opportunities, diversity in housing supply and facilitation of business opportunities within the commercial, centre and industrial zoned areas.

Part II of the Strategy identifies a series of key issues facing the Town, arising from consideration of State and regional planning context (Part II sections 2, 3 and 4), the Local Planning Context (Part II section 5), and the Community and Stakeholder Engagement Outcomes report (Appendix A).

However, Part I of the Strategy does not provide adequate strategies and actions responding to many of those key issues.

To provide an appropriate rationale for the zoning and classification of land under the scheme in accordance with Regulation 11(2)(c) of the Regulations, it is recommended that the Strategy be reorganised to:

- address its 'Key Issues' section within Part I; and
- incorporate additional strategies and actions responding to these key issues.

### Strategic Planning for Public Open Space

Improvements to the public realm (including accessibility, quantity and quality of POS) are reinforced as a priority issue throughout both Parts I and II of the Strategy.

The Strategy responds to this issue through advocating the implementation of the recommendations of the Town's Public Open Space Strategy (2019; POS Strategy). However, the Town's POS Strategy does not provide mechanisms – planning or otherwise – by which its recommendations will be implemented.

It is recommended that the Strategy be modified to suitably acknowledge the key findings of the Town's POS Strategy and provide additional strategies and actions in Part I that respond to the key findings and recommendations of the POS Strategy.

### Development Investigation Areas

The Strategy notes that there is limited suitable vacant land within the Port Hedland townsite to accommodate new housing, with much of the vacant land (not subject to freehold) being environmentally constrained or limited by tenure.

The Strategy determines that priority opportunities for new residential development shall be directed to infill parcels in the eastern end of Port Hedland that are free from environmental constraints, being typically elevated and not prone to coastal inundation. The Strategy identifies priority sites including the former recreation centre and detention centre sites, the Telstra tower site and the former wastewater treatment plant site (Attachment 3).

The East End Urban Village precinct section of the Strategy also identifies a number of 'Development Investigation Areas', being areas of land that may be suitable for residential development but have various environmental constraints that would need to be addressed prior to the land being developed for urban purposes including the Athol Street urban development area, the Stables Precinct and Pretty Pool Stage 3a.

The identification of these 'Development Investigation Areas' associated with high amenity areas (such as Pretty Pool Creek) is supported, including how the Strategy generally details the investigations necessary to determine whether these areas are suitable for development.

However, the spatial delineation of the Athol Street, Stables Precinct, and Pretty Pool Stage 3a sites within Strategy Map 01 does not align with the comprehensive planning investigation process outlined in earlier sections of the Strategy. Given the significant environmental factors constraining development in Pretty Pool Creek (refer Attachment 3), the spatial extent of these sites as depicted in the Strategy Map is likely to be unrealistic.

It is recommended that Strategy Map 01 be modified to clearly indicate that the final extent of urban development within each 'Development Investigation Area' will be determined through completion of the comprehensive investigations identified in the Strategy.

### Conclusion

The Strategy has been prepared largely in accordance with Regulation 11(2) of the Regulations. Certification to advertise is recommended subject to the completion of a range of minor and administrative modifications (Attachment 4) to:

- ensure the Strategy achieves the requirements of Regulation 11(2)(c) of the Regulations;
- ensure consistency between the Strategy's contextual analysis (Part II) and the proposed planning strategies and actions (Part I) and Strategy maps; and
- address editorial matters.

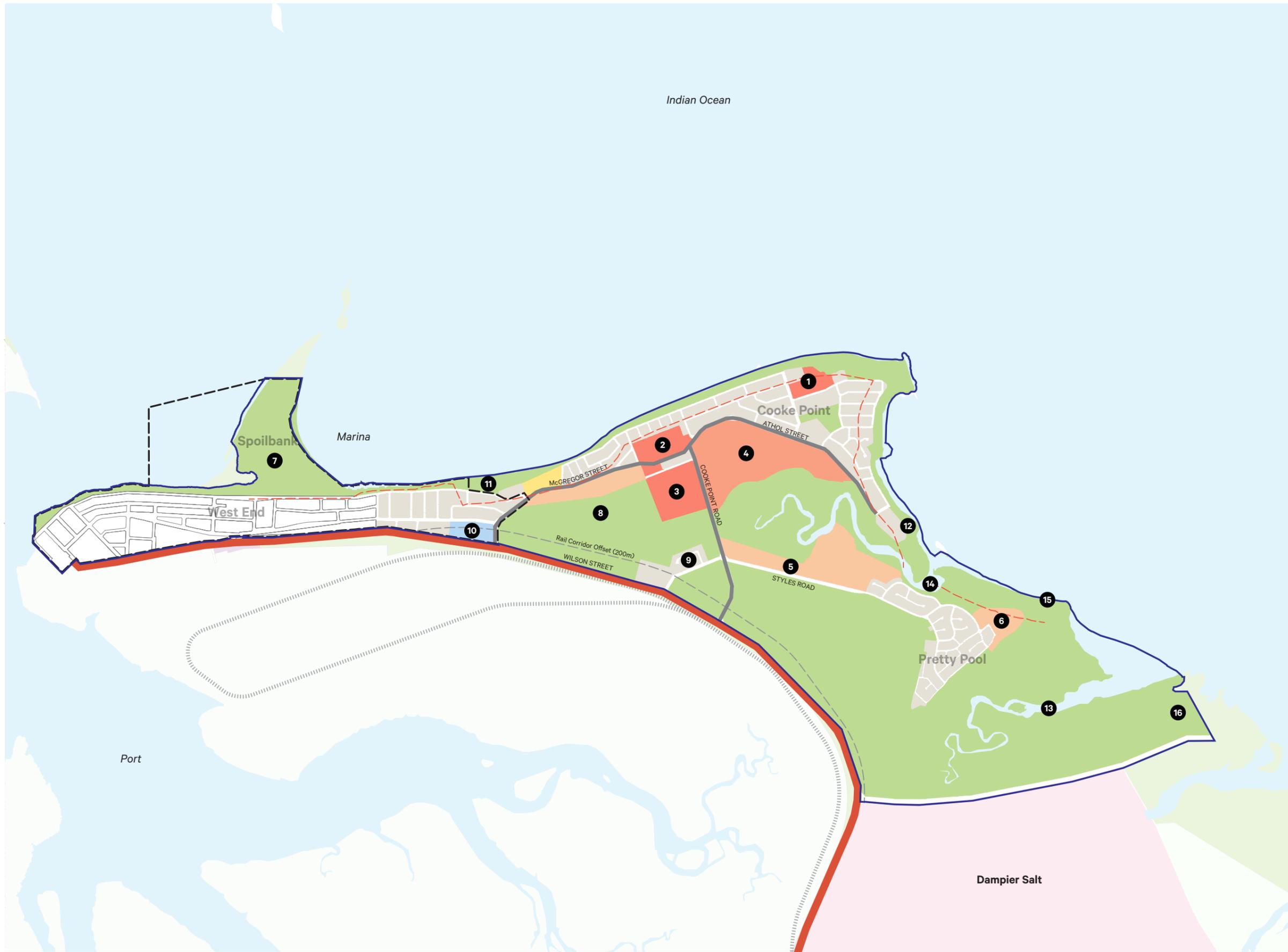
## RECOMMENDATION

*That the Statutory Planning Committee resolves to:*

- 1. require modification of the Town of Port Hedland's Draft Local Planning Strategy, in accordance with the attached schedule of modifications (Attachment 4), in order for it to be suitable for advertising;*
- 2. subject to the above modifications being satisfactorily undertaken, certify that the local planning strategy is consistent with regulation 11(2) of the Planning and Development (Local Planning Schemes) Regulations 2015;*
- 3. authorise Department of Planning, Lands and Heritage officers to review the modifications to ensure they have been satisfactorily undertaken and execute the documents accordingly, prior to the advertising of the Draft Local Planning Strategy;*
- 4. require the Draft Local Planning Strategy, upon completion of the modifications and review of the modifications by the Department of Planning, Lands and Heritage, to be advertised in accordance with regulation 13 of the Planning and Development (Local Planning Schemes) Regulations 2015.*

## ATTACHMENTS

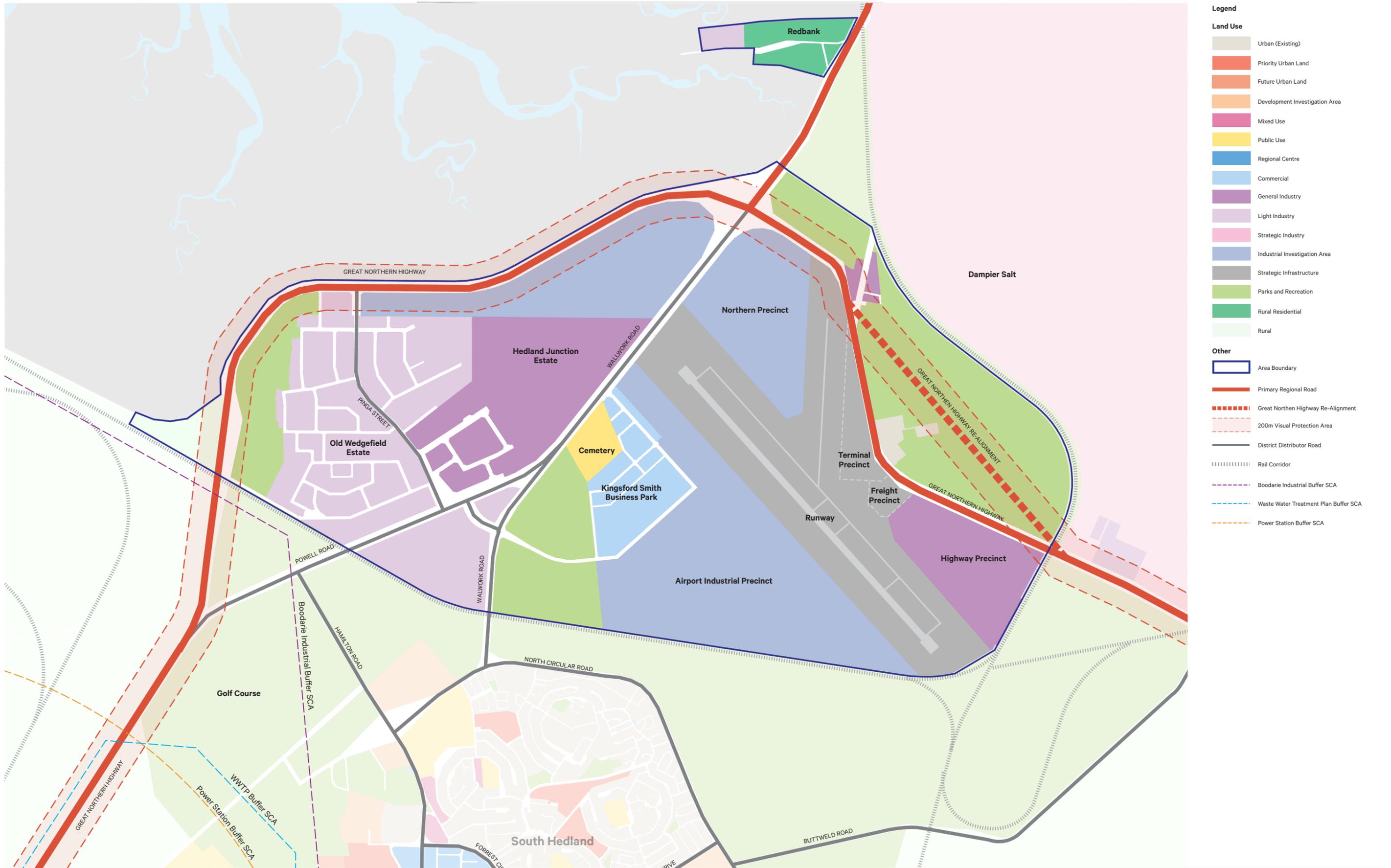
A1 - Draft Strategy Maps  
A2 - Draft Local Planning Strategy Part I and Part II  
A3 - East Port Hedland 'Development Investigation Areas'  
A4 - Schedule of Modifications



- Legend**
- Land Use**
- Urban (Existing)
  - Priority Urban Land
  - Future Urban Land
  - Development Investigation Area
  - Public Use
  - Commercial
  - Strategic Industry
  - Parks and Recreation
  - Rural
- Other**
- Waterbodies
  - Area Boundary
  - Improvement Plan No. 50 Boundary
  - Primary Regional Road
  - District Distributor Road
  - Rail Corridor
  - Rail Corridor Offset (200m)
  - 100 Year Coastal Erosion Line
- Development Areas**
- 1 Former Recreation and Detention Centre
  - 2 Telstra Tower Site
  - 3 Former Wastewater Treatment Plant Site
  - 4 Athol Street Development Investigation Area
  - 5 The Stables Precinct Development Investigation Area
  - 6 Pretty Pool Stage 3a Development Investigation Area
- Community Infrastructure**
- 7 Spoilbank Marina
  - 8 McGregor Street Sporting Precinct
  - 9 Tjalka Boorda Tourism Opportunity
- Activity Centres**
- 10 The Boulevard Neighbourhood Centre
- Environmental Assets**
- 11 Cemetery Beach Turtle Nesting Area
  - 12 Cooke Point Beach Turtle Nesting Area
  - 13 Four Mile Creek
  - 14 Pretty Pool Creek
  - 15 Pretty Pool Beach Turtle Nesting Area
  - 16 Six Mile Reserve

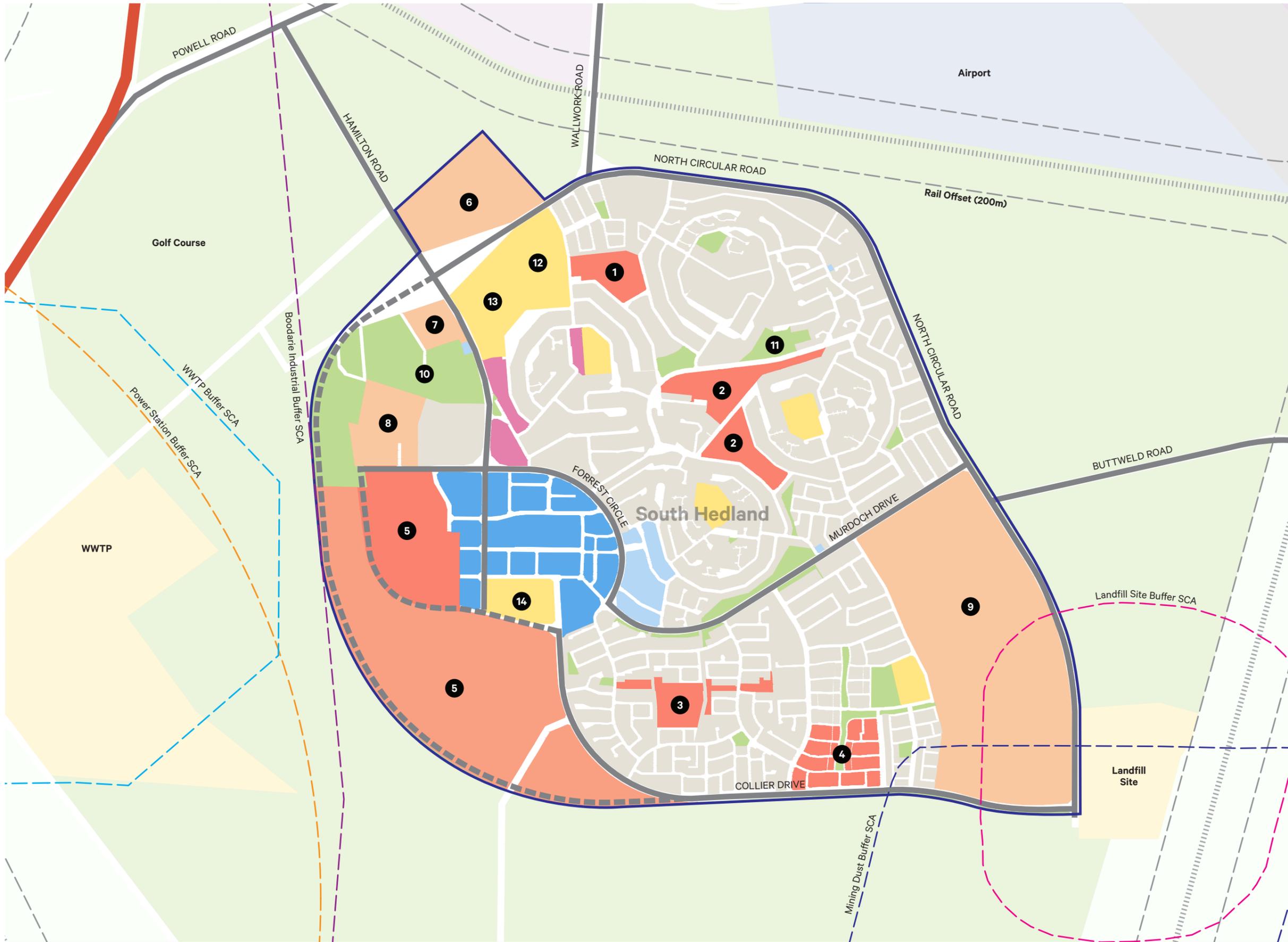
# Map 01 - Port Hedland Townsite

Town of Port Hedland Local Planning Strategy DRAFT



# Map 02 - Airport, Wedgefield and Redbank

Town of Port Hedland Local Planning Strategy DRAFT



**Legend**

**Land Use**

- Urban (Existing)
- Priority Urban Land
- Future Urban Land
- Development Investigation Area
- Mixed Use
- Public Use
- City Centre
- Commercial
- General Industry
- Industry Investigation Area
- Strategic Infrastructure
- Parks and Recreation
- Rural

**Other**

- Area Boundary
- Primary Regional Road
- District Distributor Road
- District Distributor Road (Proposed)
- Rail Corridor
- Rail Corridor Offset (200m)
- Landfill Site Buffer SCA
- Boodarie Industrial Buffer SCA
- Waste Water Treatment Plan Buffer SCA
- Power Station Buffer SCA
- Mining Dust Buffer SCA

**Development Areas**

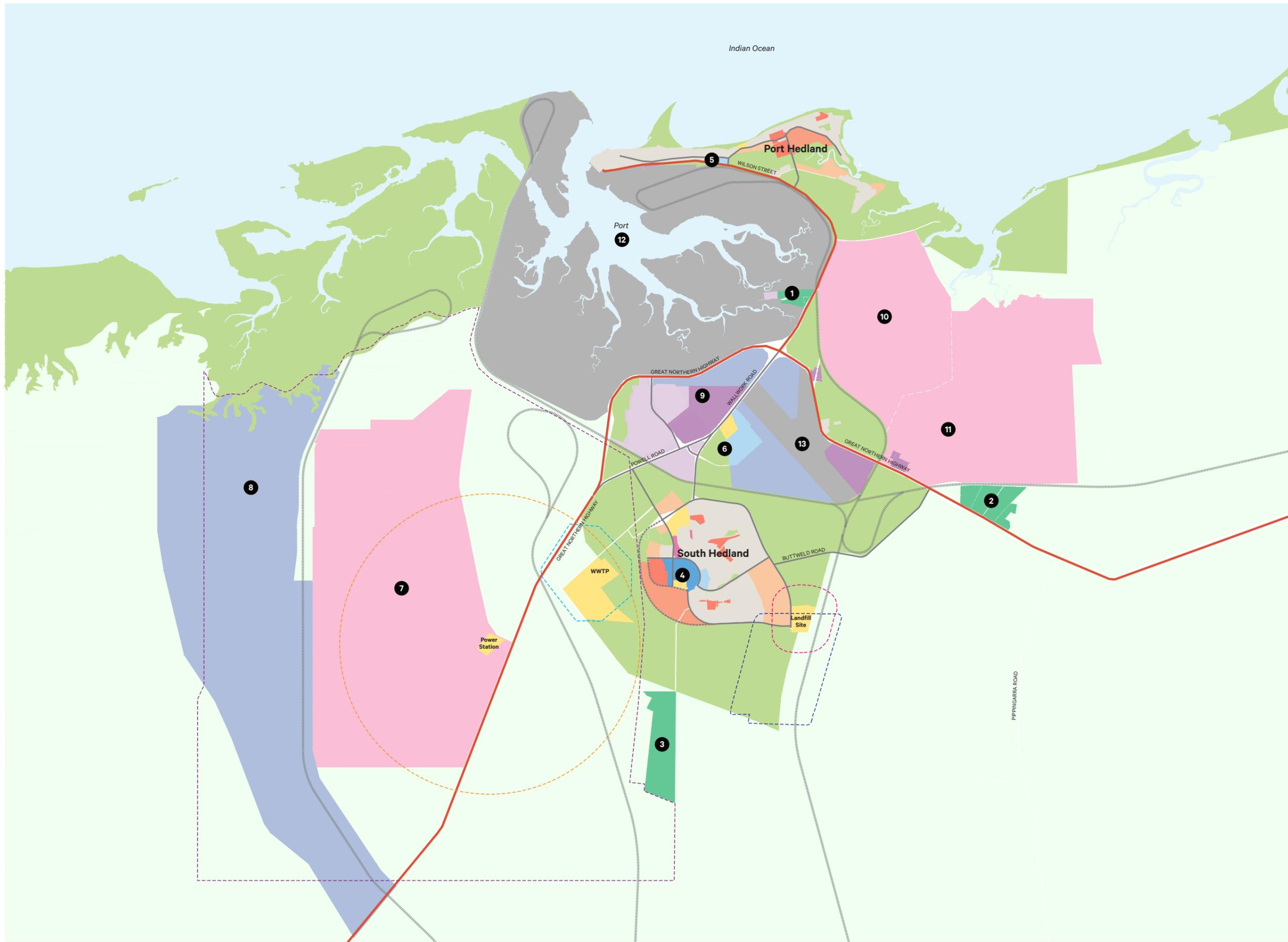
- 1 Pundulmurra Structure Plan Area
- 2 Trumpet Way Structure Plan Area
- 3 Koombana Structure Plan Area
- 4 Osprey Structure Plan Area
- 5 Western Edge Structure Plan Area
- 6 Hamilton Road Structure Plan Area
- 7 Club Hamilton Structure Plan Area
- 8 Forrest Circle Structure Plan Area
- 9 Osprey Rural Structure Plan Area

**Community Infrastructure**

- 10 South Hedland Integrated Sporting Complex
- 11 JD Hardie Youth Centre
- 12 North West TAFE
- 13 South Hedland Senior High School
- 14 South Hedland Health Campus

# Map 03 - South Hedland

Town of Port Hedland Local Planning Strategy DRAFT



**Legend**

**Land Use**

- Urban (Existing)
- Priority Urban Land
- Future Urban Land
- Development Investigation Area
- Mixed Use
- Public Use
- City Centre
- Commercial
- Light Industry
- General Industry
- Strategic Industry
- Industry Investigation Area
- Strategic Infrastructure
- Parks and Recreation
- Rural Residential
- Rural

**Other**

- Primary Regional Road
- District Distributor Road
- District Distributor Road (Proposed)
- Rail Corridor
- Landfill Site Buffer SCA
- Boodarie Industrial Buffer SCA
- Waste Water Treatment Plan Buffer SCA
- Power Station Buffer SCA
- Mining Dust Buffer SCA

**Rural Residential**

- 1 Redbank Estate
- 2 12 Mile Estate
- 3 Bosna and Quartz Estates

**Activity Centres**

- 4 South Hedland City Centre
- 5 The Boulevard Neighbourhood Centre
- 6 Kingsford Smith Business Park Specialised Centre

**Industrial Precincts**

- 7 Boodarie Strategic Industry
- 8 Boodarie Stockyards (Stage 2)
- 9 Wedgefield Estate
- 10 Dampier Salt
- 11 Explosives Reserve

**Strategic Infrastructure**

- 12 Port Hedland Port
- 13 Port Hedland International Airport

# Map 04 - Townsite Surrounds

Town of Port Hedland Local Planning Strategy DRAFT

# Draft Local Planning Strategy

Part 1 – March 2020



Town of  
**Port Hedland**



The Town of Port Hedland would like to acknowledge the Kariyarra, Ngarla and Nyamal people as the traditional Custodians of the Port Hedland lands. We recognise their strength and resilience and pay our respects to their Elders past and present.

We extend that respect to all Aboriginal & Torres Strait Islander people of the local community and recognise their rich cultures and their continuing connection to land and waters.

---

Document ID: /Volumes/Graphics/2019/19-112 Port Hedland RFQ Preperation - LPS and LPS Review/LPS/

Issue	Date	Status	Prepared by	Approved by
1	26.03.20	Draft	Alison Healey	Mike Davis

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**TOWN OF PORT HEDLAND**  
**LOCAL PLANNING STRATEGY**

**CERTIFICATION FOR ADVERTISING**

Certified for advertising by the Western Australian Planning Commission on

\_\_\_\_\_

**COUNCIL RECOMMENDED/SUBMITTED FOR APPROVAL**

Supported for submission to the Western Australian Planning Commission for endorsement by resolution of the Town of Port Hedland at the Meeting of Council held on

\_\_\_\_\_

MAYOR

\_\_\_\_\_

CHIEF EXECUTIVE OFFICER

**ENDORSEMENT OF LOCAL PLANNING STRATEGY**

Signed for and on behalf of the Western Australian Planning Commission

\_\_\_\_\_

an officer of the Commission duly authorised by the Commission pursuant to Section 16 of the *Planning and Development Act 2005* for that purpose

# Part 1 Strategy



# Part 1 Strategy

## Why the Strategy is important

**The Local Planning Strategy (the ‘Strategy’) provides a plan to guide the development of the Town of Port Hedland (the ‘Town’) towards its vision to be Australia’s leading Port town.**

The Town continues to play an important role in supporting the Nation’s economy, with the Port being the world’s largest bulk commodities export port, facilitating trade for the resource sector and other industries. The Town also has an important role to play within the Pilbara, providing services, transport and infrastructure which support the region, including the Port Hedland International Airport which provides a critical role in servicing the resource sector.

The Strategy recognises the primacy of the Port and the need to protect strategic infrastructure corridors that service the port. The Strategy also recognises the importance of community, culture and the environment and seeks to provide a coordinated approach to the delivery of future urban land with access to an appropriate level of amenity and services.

## Stakeholder and community engagement

This Strategy builds on the comprehensive engagement undertaken by the Town through the *Live It Tell It!* engagement process used to inform the preparation of its Strategic Community Plan 2018-2028.

Early engagement with the community and stakeholders was identified as a priority for the development of this Strategy, to ensure a well-informed strategic planning framework for the Town; one that is responsive to the needs of all stakeholders.

The preliminary engagement methods used to inform the preparation of this Strategy included individual meetings with key stakeholders, meetings with identified stakeholder groups, Perth and Port Hedland based roundtables, popup interactive displays within shopping centres, online surveys and provision of information sheets on the Town’s webpage.

A separate Community and Stakeholder Engagement Outcomes report (Appendix A – Shaping Hedland’s Future) documents the findings and inputs, which have informed the preparation of this Strategy.

## An approach to urban growth

The Pilbara’s Port City Growth Plan (the ‘Growth Plan’) was a Pilbara Cities initiative and released in 2012, when mining construction projects were in a growth and delivery phase, driven by strong global demand and economic returns for iron ore. The Growth Plan strongly emphasised accommodating projected economic growth by aspiring to accommodate a total population of at least 50,000 people by 2031. The Growth Plan identified large areas of land to accommodate this growth, much of which had significant environmental constraints, tenure limitations and/or a lack of service provision.

Subsequent to the preparation of the Growth Plan, the mining industry transitioned from a construction phase to an operational and delivery phase. The target population of 50,000 people by 2031 proved overly optimistic and now necessitates the preparation of a Strategy that sets out a plan for urban growth, based on more realistic population growth scenarios.

## Population forecasting

Population forecasting provides a sound basis on which to develop strategies and actions to inform growth and development within a local government area. The Town’s approach to the development of this Strategy is to ensure a balance is achieved between a conservative (or ‘baseline’) population forecast versus an aspirational population forecast. This approach will ensure that the Strategy is resilient, capable of addressing baseline growth patterns by providing sufficient land for urban growth and necessary services and infrastructure while being able to respond effectively to more rapid fluctuations in growth, should certain economic and policy factors come into play.

The following outlines the conservative and aspirational forecasts for the Town, as well as factors that could facilitate a high growth scenario:

### Conservative forecast

The conservative forecast developed by RFF, identifies a population forecast of **18,500 people** for the Town by **2041**. This population forecast is based on the historical long-term average population growth rate of 0.9% per annum. While it is a conservative growth rate, this Strategy acknowledges the non-linear ‘boom and bust’ nature of growth and decline in Port Hedland and therefore this scenario has its limitations as growth does not follow a linear trajectory.

### Aspirational forecast

The aspirational forecast is based on Forecast.id modelling which identifies a population of **27,085 people** for the Town by **2041**. The Forecast.id population forecast takes into account a range of factors such as demographic changes (births, deaths, migration) and accounts for urban development drivers (residential development opportunities, land availability, diversity of housing stock, regional competition, vacancy rates).

A concerted effort across government and industry would be required for the Town to realise population growth in accordance with the high growth scenario. Some factors that may drive this growth could include the following:

- improvement in community infrastructure including schools, health care facilities and the amenity of parks and the public realm, making Hedland a more attractive place to live;

- the delivery of community projects such as the McGregor Street sporting precinct, South Hedland Integrated Sporting precinct and the JD Hardie Masterplan;
- corporate social responsibility by industry and business to encourage and promote a local workforce over fly-in, fly-out workforces;
- a commitment by the State Government toward Hedland becoming a prosperous regional economy through its decision making on regional services, mining infrastructure and workforce accommodation camps;
- a potential State government policy stance on FIFO employment such as observed in Queensland with the Mining Safe to Work (2019) policy; and
- collaboration and partnerships with industry to support diversification of the local economy.

## Housing demand and supply

At the 2016 census, a total of 7,432 dwellings were recorded within the Port Hedland local government area. Of these, 66 percent were occupied, leaving approximately 2,450 dwellings vacant. The average household size of Port Hedland is currently 2.56 persons per dwelling. Based on the population forecasts for the Town growing from 14,975 people to between 18,500 (conservative forecast) and 27,085 (aspirational forecast) people by 2041, a total of 1,377 and 4,730 new dwellings respectively will be required. This is additional to the planned relocation of existing permanent dwellings within the West End precinct following the findings of the Port Hedland Dust Management Taskforce.

The Department of Planning, Lands and Heritage (DPLH) has undertaken a land supply assessment which identified the capacity to deliver new dwellings as follows:

Locality	Short-term (0-5 years)	Medium-term (6-10 years)	Long-term (10+ years)	Total
Port Hedland	0	0	382	382
South Hedland	320	2,750	1,485	4,555
<b>Total</b>	<b>320</b>	<b>2,750</b>	<b>1,867</b>	<b>4,937</b>

Source: Department of Planning, Lands and Heritage (2018)

The land supply assessment demonstrates that there is sufficient land zoned for residential purposes to accommodate the aspirational population growth scenario. This is additional to a high vacancy rate in existing residential stock. On this basis, it is considered necessary to prioritise residential growth in a way that makes efficient use of infrastructure and services and which responds to identified need for new housing.

There is limited suitable vacant land within Port Hedland to accommodate new housing, with much of the vacant land (not subject to freehold) being environmentally constrained or limited by tenure. However, with permanent residential being relocated out of the West End of Port Hedland, it is necessary to identify future housing opportunities in Port Hedland. Priority shall be directed to land free from environmental constraints, being typically higher lying land not prone to coastal inundation and located away from mangrove habitats. Sites include the former recreation centre and detention centre sites, the Telstra tower site and the former wastewater treatment plant site. Land on Athol Street, The Stables precinct and Pretty Pool Stage 3a are all identified as 'Development Investigation Areas' which require further site investigations to determine if this land may be suitable for development.

South Hedland includes substantial areas that are suitable for residential development. Priority shall be directed to existing vacant infill sites and vacant land within 400m walkable catchment of the City Centre. The consolidation of urban development is supported around the City Centre to improve the viability and performance of the centre long term.

The Western Edge and Osprey Rural Village Structure Plan areas have previously been approved and provide substantial housing yield to meet the medium to long term projected demand for dwellings.

Given the extent of land zoned 'Urban Development' in South Hedland, there will be a general presumption against rezoning of further rural land for urban purposes.

## District and regional services and facilities to support urban growth

Port Hedland and South Hedland are two distinct urban areas and each require a level of services and facilities to meet the needs of residents.

South Hedland contains the 'City Centre', which will be the focus of future retail and commercial growth in the district and will continue to provide regional level retailing services. It is intended that ultimately this centre will grow to support the growth of the Town into a City. The existing neighbourhood centre in Port Hedland will continue to meet the daily and weekly shopping needs of Port Hedland residents.

Further local centres may be considered within structure planning areas; however, any new centres should be in accordance with an endorsed Activity Centres' Strategy for the district.

The Town has adopted a Public Open Space Strategy that establishes a hierarchy for the provision of recreational facilities. The McGregor Street Masterplan provides for recreation facilities in Port Hedland while the South Hedland Integrated Sports Masterplan provides for recreation facilities in South Hedland. The JD Hardie Youth Centre will be expanded to provide an extended range of youth-focussed infrastructure.

Schools are currently provided to meet the needs of the district; however, new school sites have been identified in future development areas within South Hedland.

## **A coordinated approach to the provision of Industrial land**

Industrial land use and development has been established in a number of areas within the district over time. The Wedgefield Industrial Estate ('Wedgefield') is the largest of the Town's existing industrial estates. Smaller industrial areas include the West End of Port Hedland, along Bell Street, airport and specialised industry on the Explosives Reserve in Pippingarra. The granting of Crown leases to industrial uses on an unplanned basis has also contributed to the distribution of industrial uses beyond Wedgefield. This Strategy identifies Wedgefield as the primary industrial estate to accommodate future general industry. The Strategy seeks to address existing land use conflicts within the older part of Wedgefield by zoning this area 'Light Industry' to curtail further proliferation of incompatible uses. In doing this, the Strategy aims to transition heavy industrial uses currently located in the older part of Wedgefield to the newer Hedland Junction estate in Wedgefield, which has road and drainage infrastructure to support general and transport logistics for industrial uses.

Industry that has synergies with the International Airport operations may be accommodated on the airport site as leasehold tenancies as opposed to the permanent freehold industrial land within Wedgefield.

Strategic, heavy and noxious industry associated with the port operations is planned to be accommodated within the Boodarie Strategic Industrial Area ('Boodarie'), which is protected via a significant buffer to sensitive land uses.

Applications for industrial land uses on Crown land outside of these precincts will not be supported by the Town.

# Introduction

## Purpose of the Local Planning Strategy

The Local Planning Strategy (the ‘Strategy’) sets out the long-term planning directions for the Town. In applying relevant State and regional planning policies to the local level, the strategy provides the rationale for zoning or classification of land under the local planning scheme (the ‘Scheme’) and the means to address economic, social and environmental matters.

The purpose of the Local Planning Strategy is to:

- Establish a vision for the future of the district;
- Provide direction for growth and development within the Town over the next 15 years;
- Establish strategies and actions in response to identified opportunities and constraints;
- Provide a rationale for land release to support sustainable urban growth; and
- Identify the need for further studies and investigations to respond to issues within the district.

## Content and Structure

This Strategy comprises two parts:

### Part 1: Strategy

Part 1 sets out the vision, objectives, strategies and actions for the long-term planning and development of the Town of Port Hedland. It provides the basis for detailed planning provisions within the local planning scheme and a means to assess planning proposals from strategic perspective. The Strategy includes a strategic spatial plan that summarises the approach to addressing community, economic and built and natural environment issues.

### Part 2: Background Information and Analysis

Part 2 provides the relevant background to the Strategy, including analysis of the key issues and the rationale for the strategy. It includes the State, regional and local planning context within which this Strategy has been prepared, the method of its preparation, and analysis of community, economic and environmental profiles that form the basis for the recommended strategies and actions in Part 1.

## Integrated Planning and Reporting Framework

The Town's Integrated Planning and Reporting Framework (the 'Framework') aims to ensure integration of the community's vision, outcomes and priorities into strategic planning. The role of the Strategy will be to guide the community's vision embodied in the Framework through land use planning outcomes.

The diagram below illustrates how all of the elements of the Framework, including this Strategy, fit together to deliver those priorities.



Figure 1 - Integrated Planning and Reporting Framework

## Relationship to Local Planning Scheme

The local planning strategy is the guiding document for the preparation and review of the local planning scheme. The Scheme is the legal basis for governing land use and development within the local government area. For planning proposals located within the Town of Port Hedland, the local planning scheme is the primary means by which the Town can ensure that new land uses, and development, contribute towards fulfilling the aims of the Strategy.

## Strategy Area

The Town of Port Hedland is located in the Pilbara region of Western Australia and covers an area of approximately 18,700 square kilometres, extending from the coast to approximately 180 kilometres inland. The Strategy applies to the whole of the Town as shown in Figure 2.

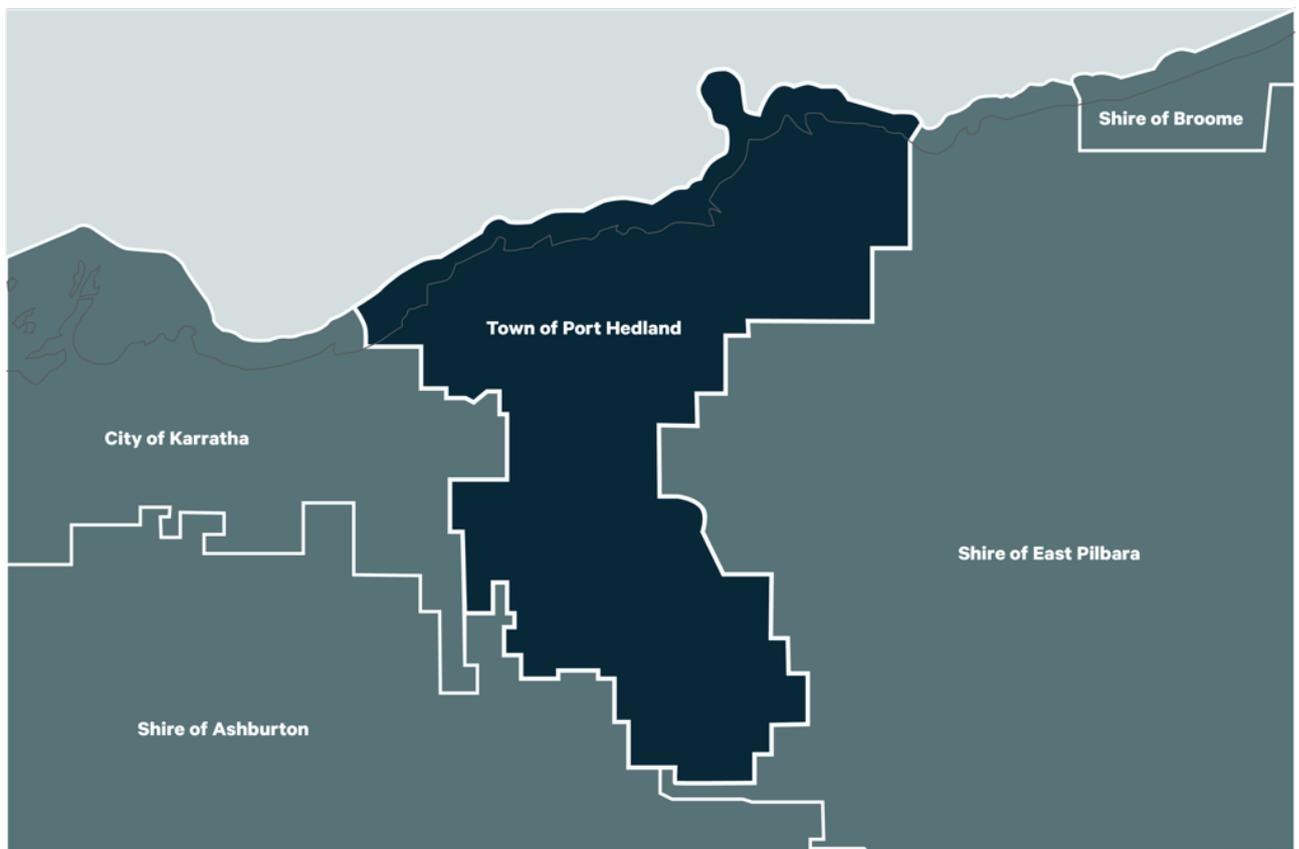


Figure 2 – Location and Strategy Area



# Vision and Objectives

## Vision

**“To be Australia’s leading Port town embracing community, culture and the environment”.**

## Objectives

The Strategy’s objectives are drawn from a comprehensive context analysis which identified issues, challenges and opportunities for the Town. The objectives, outlined below, support the Town’s vision to be Australia’s leading Port Town.

<p><b>Our Identity</b></p>	<ul style="list-style-type: none"> <li>• Provide a range of community facilities that are inclusive for the whole community, both now and into the future</li> <li>• Provide a hierarchy of open space to meet the diverse needs of the community</li> <li>• Strive to improve amenity across the local government area</li> <li>• Promote development that respects our cultural heritage</li> </ul>
<p><b>Our Prosperity</b></p>	<ul style="list-style-type: none"> <li>• Protect strategic industry from sensitive and incompatible land uses</li> <li>• Establish a clear hierarchy of commercial centres that meet the needs of the community</li> <li>• Actively pursue opportunities to diversify the economy</li> <li>• Rationalise dedicated industrial areas required to service industry and the community</li> <li>• Promote our unique offerings to attract visitors and tourists</li> </ul>
<p><b>Our Built and Natural Environment</b></p>	<ul style="list-style-type: none"> <li>• Facilitate consolidated urban form that maximises efficient use of existing and planned infrastructure</li> <li>• Plan for development areas that can effectively respond to fluctuations in the economy and population change while being resilient to climate change and natural systems</li> <li>• Enhance and conserve our natural environment for the social, cultural, spiritual and economic wellbeing of the community</li> <li>• Plan for a diverse range of housing typologies</li> <li>• Provide services and infrastructure that meet urban growth requirements</li> </ul>



# Strategic Plan

## Our Identity

### Community Infrastructure

#### Health

The Hedland Health Campus is located in South Hedland and provides a range of primary care services. The Health Campus is supported by a number of medical practices within the district.

#### Education

There are two primary schools located within the locality of Port Hedland, being St Cecilia's Catholic Primary School and Port Hedland public primary school.

South Hedland incorporates three public primary schools and the Hedland public senior high school. A fourth primary school site has been set aside in Osprey in South Hedland.

Currently there are an adequate number of schools in the district to meet primary and secondary education requirements. However, should the population increase from 14,975 people to between 18,500 and 27,085 people by 2041, there may be a requirement to provide for additional school sites. It is noted that the endorsed Osprey Rural Structure Plan sets aside land for a combined primary school and high school site.

The North Regional TAFE site is also located in South Hedland and provides a range of tertiary courses.

#### Relevant Objectives:

- Provide a range of community facilities that are inclusive for the whole community, both now and into the future

**Strategy Response: Plan for an appropriate level of community facilities**

#### Actions

- Ensure the provision of an appropriate level of community facilities through the preparation of structure plans and implementation of subdivision and development approvals.

## Public Open Space

The Town has prepared a Public open Space Strategy (the 'POS Strategy') in 2019 which establishes a hierarchical approach to the distribution and provision of open space and recreation facilities to meet the range of recreational needs of the community. The POS Strategy identifies an overall shortfall of public open space across the local government area, with a substantial proportion of this shortfall being attributed to South Hedland.

Regional sports facilities are proposed by the McGregor Street Master Plan within the Port Hedland townsite and also by the South Hedland Integrated Sports Complex Master Plan for South Hedland. The JD Hardie Master Plan identifies new facilities focussed on youth activities.

A new pedestrian path and cycleway strategy is required to provide guidance relating to the provision of new paths to improve that gaps in the current path network.

### Relevant Objectives:

- Provide a range of community facilities that are inclusive for the whole community, both now and into the future.
- Provide a hierarchy of open space to meet the diverse needs of the community.

### Strategy Response: Implement the Town's Public Open Space Strategy

#### Actions

- Progressively implement:
    - o the recommendations of the Town's Public Open Space (POS) Strategy to address open space and recreation requirements across the district.
    - o the following Master Plans to provide regional and youth-based recreation facilities:
      - McGregor Street Master Plan;
      - South Hedland Integrated Sports Complex Master Plan; and
      - JD Hardie Master Plan.
  - In accordance with the Town's Public Open Space Strategy; the Town will:
    - o generally support the payment of cash-in-lieu of POS within the locality of Port Hedland; and
    - o support the provision of consolidated areas of POS within the locality of South Hedland.
  - Review the Town's POS Strategy to include a path and cycleway access strategy.
-

## Heritage and Culture

### Aboriginal Heritage

The Kariyarra people are the original inhabitants of Port Hedland having inhabited the area for 40,000 years. The Kariyarra people call the place Marapikurrinya for the hand shaped formation of the tidal creeks coming off the natural harbour.

The Kariyarra Native Title claim includes exclusive and non-exclusive rights over parts of the claim area, which covers the majority of the Port Hedland local government boundary area.

In Port Hedland, Native Title negotiations between the Yamatji Marlpa Aboriginal Corporation and the State Government are also being progressed to reach a similar agreement as that reached in South Hedland.

In addition, there are numerous registered Aboriginal heritage sites located throughout the district.

#### Relevant Objectives:

- Promote development that respects our cultural heritage

**Strategy Response: Acknowledge the Traditional Owner's cultural interest and role in decision-making processes**

#### Actions

- Consider Native Title rights and interests in all strategy and statutory planning processes and decision-making.
- Adhere to the requirements of the *Aboriginal Heritage Act 1972* (or equivalent) in decision-making processes.
- Progress a dual naming strategy and approach for places throughout Hedland.
- Promote Aboriginal art and interpretation as part of a public art program.
- Progress and implement Native Title agreements in conjunction with the State and Native Title claimants.
- Explore and identify a location for an Aboriginal Cultural Centre.

### Historic Heritage

Port Hedland has a rich history having been identified by Swedish-born mariner, Peter Hedland, as being a suitable location for a Port after his arrival in 1863. By 1896, Port Hedland was settled on Kariyarra country, at Condon (gazetted as Shellborough), located on the coastline on land that now forms part of De Grey station. Shellborough was the first Port to be settled in the Pilbara. Since then, the district has a long-standing identity as a Port town.

A review of the Town's Heritage Inventory in 2017 identified 77 place listings and one formal Heritage Area comprising seven places. A further 15 heritage sites were added at this time. In accordance with the Town's 2017 Heritage Inventory, Grade A and Grade B listed properties are included on the Town's Heritage List.

#### Relevant Objectives:

- Promote development that respects our cultural heritage

**Strategy Response: Protect and promote our historic heritage for the enjoyment of future generations**

#### Actions

- Continue to review and update the Town's Heritage Inventory.
- Maintain a Heritage List under the Local Planning Scheme.

## Our Prosperity

### Economic Development

With approximately \$1.4 billion inputs purchased from outside the local economy compared to just \$711.6 million purchased within the local economy, Port Hedland’s local supply chains could be further established. Key imports to the region consist of construction, financial and insurance services and mining support services. Evidently, import replacement opportunities exist for construction and mining support services, which will strengthen these local industry supply chains.

The Town proposes to prepare an Economic Development Strategy to identify opportunities to grow and diversify the local economy. Potential growth industries include, but are not limited to:

- Support services for the mining industry;
- Manufacturing;
- Education and training;
- Healthcare;
- Home based business and small business investment; and
- Tourism.

**Relevant Objectives:**

- Actively pursue opportunities to diversify the economy

**Strategy Response: Establish a clear strategy to build and diversify the local economy**

**Actions**

- Develop an Economic Development Strategy to establish tangible actions to diversify and grow the local economy.

### Industry

The Town’s primary industrial area is Wedgefield which also includes the new Hedland Junction precinct. The proximity of the Port Hedland International Airport to Wedgefield provides an opportunity to consolidate this combined area as a functional industrial precinct. A total of 251 ha of industrial land remains undeveloped within Wedgefield. This land availability is sufficient to meet demand for light and general industry through to 2041.

The distribution of industrial land uses throughout the district has occurred on an ad-hoc basis leading to the establishment of smaller industrial precincts outside of Wedgefield. This has occurred as a result of a number of factors including:

- limitations within Wedgefield including inadequate road infrastructure and ongoing land use conflict with caretakers’ dwellings which may deter large logistics and heavy industry from establishing;
- Crown leases being granted for industrial land uses outside of Wedgefield; and
- the preference for industrial operators to lease land as opposed to purchasing and developing industrial land outright.

The Port Hedland International Airport Masterplan also includes provision for industrial land on a leasehold basis.

The Department of Jobs, Science, Tourism and Innovation has set aside 1,325 ha of land within Boodarie for strategic and heavy industrial uses. However, this land requires substantial infrastructure investment before it can become available for industry. This means there are limited options for locating heavy industry.

**Relevant Objectives:**

- Protect strategic industry from sensitive and incompatible land uses
- Rationalise dedicated industrial areas required to service industry and the community

**Strategy Response: Provide a clear strategy for the provision of industrial land to support the sustainable growth of industry**

**Actions**

- Promote Wedgefield as the primary industrial precinct to meet demand for light and general industrial land.
- Allow for some industrial land to be provided on the airport on a leasehold basis to accommodate industrial uses that have synergies with the airport operations.
- Do not support further industrial land uses on Crown land outside of Wedgefield and Boodarie.
- Consider investigating an alternative location to the Boodarie Strategic Industrial Area for the provision of land for general and heavy industrial land uses that will result in significant offsite impacts.
- Continue to protect the Boodarie Strategic Industrial area from encroachment or development of incompatible land uses via a Special Control Area within LPS7.

## Activity Centre Hierarchy

**Activity centres provide focal points for the community which can provide a range of functions including the provision of retail, commercial, employment, community and recreation services alongside higher density housing. A clear hierarchy of activity centres should be established to meet the varying needs of the community.**

The South Hedland centre is recognised as the primary City Centre while the Boulevard Shopping Centre is recognised as a neighbourhood level centre which provides retail services to meet the weekly needs of residents based in Port Hedland.

**Relevant Objectives:**

- Establish a clear hierarchy of commercial centres that meet the needs of the community

**Strategy Response: Provide a framework which enables the existing activity centres to thrive and provides flexibility for new neighbourhood and local centres to meet the evolving needs of the community**

**Actions**

- Maintain the existing Activity Centre hierarchy as identified on the Strategy maps and set out below:
  - o City Centre: South Hedland City Centre;
  - o Neighbourhood Centre: Port Hedland Boulevard Shopping Centre; and
  - o Specialised Centres: Kingsford Smith Business Park.
- Prepare an Activity Centres' Strategy to provide a clear framework for the provision of future centres.
- Plan for the provision of neighbourhood and local centres in future Structure Plans in accordance with an approved Activity Centres' Strategy.

## Rural, Mining and Pastoral Areas

The port of Port Hedland was initially established to support the Pilbara's expanding pastoral industry. Today, 30 percent of the Pilbara is subject to leases and the pastoral industry exports \$31m of cattle per annum. Mining continues to play an important role in the region and relies on infrastructure that traverses rural land.

Growth of the pastoral industry represents an opportunity to diversify the economy. The regions access to mine dewatering and abundant groundwater resources provides the potential for the pastoral industry to diversify. The region's proximity to Asia means the industry can provide fresh food to Asian markets.

It is noted that there are also a number of former mine sites on pastoral land within the locality that may yield new opportunities.

Opportunities relating to rural, mining and pastoral industries within the locality include:

- provision of new infrastructure to support the cattle industry, such as a dedicated holding yards, abattoir, palletisation plant and truck washdown facilities;
- intensive irrigated agriculture utilising mine dewater and / or located on fertile soil along rivers;
- ecological sustainability including carbon farming and sequestration to combat land degradation;
- mine repurposing;
- renewable energy facilities; and
- tourism including unique pastoral stay opportunities and coastal-based accommodation.

### Relevant Objectives:

- Actively pursue opportunities to diversify the economy
- Promote our unique offerings to attract visitors and tourists

**Strategy Response: To plan for facilities that support the pastoral industry and minimise statutory barriers to diversification of economic pursuits on pastoral land**

### Actions

- Identify a preferred location for a dedicated holding yard and separate abattoir.
- Provide local government support for pastoral diversification permits.
- Ensure a diverse range of land use permissibility for the Rural zone within LPS7.
- Advocate for enhanced inclusion of the pastoral industry in the Developing Northern Australia agenda.
- Support the re-use of former mine sites on pastoral land to contribute alternative economic outcomes and activities.

## Tourism

Port Hedland recorded approximately 244,000 domestic visitors (both day trips and overnight) and 15,300 international visitors in 2018. Large fluctuations in visitation over the 2008 to 2018 period can be attributed to the smaller size of Port Hedland compared to metropolitan areas, as well as the limitations of a small sample size during data collection.

Port Hedland is renowned for its sizeable resources industry, private railways, large ships and export tonnage port, providing visitors with a unique opportunity to view the export operations of Australia's iron ore mining industry. Key visitor attractions include Karijini National Park, Spinifex Hill Studios, Courthouse Gallery, Cemetery Beach Park, Redbank Bridge Salt and Train Lookout and Don Rhodes Mining Museum. Popular events include the Port Hedland Cup (Heddy's Cup) and Pilbara Music Festival (North West Festival).

The majority of visitors (51.6%) came to the region for business purposes (aligned to mining in the region) whilst a further 27.9% visited for holiday reasons in 2018.

The Town of Port Hedland's Short-Term Recreational Vehicle Overflow Area is located adjacent to the Port Hedland Turf Club on McGregor Street, Port Hedland. Situated within walking distance of local amenities, and a short drive from the Town Centre and multiple tourist attractions, the site encourages tourists to stop and stay within the Town.

### Relevant Objectives:

- Actively pursue opportunities to diversify the economy
- Promote our unique offerings to attract visitors and tourists

### Strategy Response: Identify strategies to promote and diversify the Town's tourism offer

#### Actions

- Prepare a local tourism strategy which identifies strategies to promote and diversify the Town's tourism offerings with a focus on the following:
  - o Development of regional and local tourism trails;
  - o Develop and promote the region's indigenous cultural and heritage values;
  - o Strategies to diversify tourism accommodation;
  - o Strategies to market existing tourism offers (i.e. turtle season tours, Seafarers tour, mining tours);
  - o Local arts and culture;
  - o Pastoral tourism opportunities;
  - o Industrial/ mining-based tourism; and
  - o Promote region to cruise ship industry.
- Identify coastal tourism nodes at Port Hedland, the historic Condon townsite and De Grey station on the Strategy maps to promote tourism opportunities compatible with the coastal environs.

## Our Natural Environment

### Coast and Foreshores

**The Port Hedland townsite is located on a narrow headland, which is exposed to erosion hazards and low-lying areas are subject to storm surges and inundation.**

A Coastal Hazard Risk Management and Adaptation Plan (CHRMAP) has been prepared for the Port Hedland townsite and identifies that ocean inundation is the general cause of flooding across the precincts of West End, Spinifex Hill, East End Urban Village, Port Authority and Finucane Island, Redbank, parts of Damper Salt and Surrounds, and part of Wedgefield Industry and Logistics area. Low lying areas further away from the coast (e.g. around Wedgefield, South Hedland, Pippingarra and the Airport and surrounds) are impacted by flooding from the minor creeks (especially between South Creek and South West Creek) that convey flows from the south of the developed areas towards the inner harbor. This is exacerbated when combined with elevated ocean water levels in the inner harbor.

Flooding across the broader local government area will generally be associated with flooding of the major rivers, which may occur due to tropical lows and/or tropical cyclone activity.

Coastal dune systems are also at risk of degradation as a result of unmanaged informal 4WD access along the coastline.

#### Relevant Objectives:

- Promote our unique offerings to attract visitors and tourists
- Plan for development areas that can effectively respond to fluctuations in the economy and population change, while being resilient to climate change and natural systems
- Enhance and conserve our natural environment for the social, cultural, spiritual and economic wellbeing of the community

**Strategy Response: Proactively plan for storm surge and other coastal events and minimise the risks of coastal processes on the community**

#### Actions

- Include the coastal hazard area within a Special Control Area with the following objectives:
  - o To protect new development from the impacts of flooding, coastal erosion and inundation;
  - o To provide for implementation of the Port Hedland Townsite Coastal Hazard and Risk Management Adaptation Plan; and
  - o To minimise the risks of coastal processes on the community.
- Implement the recommendations of the Port Hedland Townsite Coastal Hazard Risk Management Adaptation Plan to maintain the social, cultural and environmental values of the coastal foreshore while also acknowledging the importance of the coastline for active and passive recreation.
- Structure planning within the Port Hedland locality to respond to the recommendations and requirements of the Port Hedland Townsite Coastal Hazard Risk Management Adaptation Plan.
- Develop a Coastal Access Strategy to define formalised access tracks to the coast and identify strategies and actions to manage and mitigate informal 4WD access to the coast.

## Vegetation and Biodiversity

The Town is situated within three Interim Biogeographic Regionalisation for Australia (IBRA) regions; Dampierland, Pilbara and Great Sandy Desert. Numerous vegetation structural types therefore occur with varying degrees of vegetation conditions. Areas of 'pristine' condition vegetation; however, occur within the tidal flats near the townsite of Port Hedland.

The Town is also known to contain a number of significant flora, vegetation and fauna values under both State and Federal legislation. These include priority ecological communities, threatened and priority flora, and threatened and priority fauna. Of note is the Flatback Turtle that inhabit the Cemetery and Pretty Pool beaches, with an area identified as land under the control of the Department of Biodiversity, Conservation and Attractions (DBCA). Two other areas are also identified.

The key environmental assets within the Town are the mangroves and beaches, both providing habitat for important marine and terrestrial organisms. Mangroves also improve water quality and shoreline stability.

### Relevant Objectives:

- Promote our unique offerings to attract visitors and tourists
- Plan for development areas that can respond to fluctuations in the economy and population change while resilient to climate change and natural systems
- Enhance and conserve our natural environment for the social, cultural, spiritual and economic wellbeing of the community

### Strategy Response:

- Protect mangrove environments and recognise their important functions in both marine and terrestrial environments
- Protect the conservation value of Flatback Turtle nesting habitats from light spill impacts from adjoining development

### Actions

- Reserve turtle nesting beaches as Parks and Recreation.
- Reserve mangrove environments as 'Environmental conservation'.
- Carry over existing LPS5 development provisions relating to light impacts and turtle management in relation to Lot 1227 Keesing Street, Port Hedland and Lots 556, 1444 and 1732 Athol Street, Port Hedland into LPS7.

## Water Quality, Supply and Management

Several major waterways flow through the Town, including the De Grey River, Yule River, Turner River and Shaw River. These primarily feed two large surface drainage systems being the De Grey River Basin and Port Hedland Coast Basin.

The Town is underlain with a multi-layered system of groundwater aquifers, with several important wetlands throughout. These wetlands include the De Grey River System, Eighty Mile Beach System and the Leslie (Port Hedland) Saltfields System.

There are two public drinking water source areas (PDWSA) proclaimed by the Department of Water and Environment Regulation within the Town. While development is allowed to occur within PDWSA, careful consideration must be given to land use compatibility and associated activities to ensure that they are appropriate in meeting the water protection quality objectives of the area.

Three areas across the Town are classified as 'sewage sensitive' by the Government Sewerage Policy (DPLH 2019). These include two wetlands located to the east of the district and the Yule River and its tributaries across the southern portion of the local government area. The definition of sewage sensitive areas for the purposes of the Government Sewerage Policy limits coastal embayments, and estuaries and inlet areas to specified systems, none of which are located within the Town. While these are not formally mapped, water quality risks to environmental assets through the use of onsite wastewater systems should still be considered in the riverine, estuarine and coastal areas.

### Relevant Objectives:

- Plan for development areas that can respond effectively to fluctuations in the economy and population change while being resilient to climate change and natural systems
- Enhance and conserve our natural environment for the social, cultural, spiritual and economic wellbeing of the community

### Strategy Response:

- Ensure groundwater resources are sustainably managed
- Preserve ecologically important wetlands
- Protect public drinking water source areas from incompatible land uses

### Actions

- Include the public drinking water source areas within a Special Control Area with the following objective:
  - o To ensure the quality of public drinking water is protected from contamination from inappropriate land use or development and to ensure off-site impacts from stormwater are appropriately managed.

## Bushfire

The majority of the Town is identified as a ‘bushfire prone area’ under the state-wide Map of Bush Fire Prone Areas as designated by the Fire and Emergency Services Commissioner. This includes around areas of existing development within the major towns of Port Hedland and South Hedland.

In accordance with State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP3.7) and the Guidelines for Planning in Bushfire Prone Areas Version 1.3 (Guidelines), a Bushfire Hazard Level (BHL) assessment should be undertaken to inform the suitability of an area for future development by categorising land as having a low, moderate or extreme bushfire hazard level. A BHL assessment is a pre-development tool and provides a ‘broad brush’ means of determining the potential intensity of bushfire for an area. Given there is sufficient land zoned for residential purposes to accommodate the aspirational population growth scenario, a BHL assessment has not been prepared along with the Strategy.

However, it is important to ensure that bushfire risk is appropriately considered and refined as part of future development and is critical to reducing the vulnerability of future residents and development to bushfire.

### Relevant Objectives:

- Plan for development areas that can respond effectively to fluctuations in the economy and population change while being resilient to climate change and natural systems
- Enhance and conserve our natural environment for the social, cultural, spiritual and economic wellbeing of the community

### Strategy Response:

- Ensure existing understanding of the bushfire hazards and its potential to affect people, property and infrastructure is reviewed and refined at subsequent planning stage(s)

### Actions

- Support preparation of a Bushfire Hazard Level assessment for areas designated as ‘bushfire prone’ at subsequent planning stage(s), to be undertaken by an accredited bushfire planning practitioner in accordance with SPP3.7 and the Guidelines.
- Require the provision of a Bushfire Attack Level (BAL) contour map and/or Bushfire Management Plan for subdivision and development on land designated as ‘bushfire prone’ in accordance with SPP3.7 and the Guidelines.

## Air Quality

Since 2009, the State government’s Port Hedland Dust Management Taskforce (the ‘Taskforce’) has assessed the possible effects of dust on the health of Port Hedland residents. This assessment was precipitated by reports of elevated dust levels close to homes and business arising from the historic proximity of port and sensitive land uses. The Department of Health’s Port Hedland Air Quality Health Risk Assessment for Particulate Matter (2016) that arose out of this process concluded that there is sufficient evidence of possible negative health effects from dust to warrant a land use planning response to reduce community exposure (refer to West End precinct below for more information).

The State government has now prepared Improvement Plan No. 50 for the West End precinct with subsequent initiation of an Improvement Scheme. The Plan effectively removes the West End from the Town local planning scheme, with control over land use outcomes in this area becoming the State’s responsibility. Community is also being consulted by the State government on a proposed buy-back scheme of residential properties.

Air quality is a specific issue not just for the West End of Port Hedland but throughout the Port Hedland district with dust management to limit exposure of at-risk groups an ongoing concern.

The Department of Water and Environmental Regulation is continuing its work to implement the Government endorsed recommendations of the Port Hedland Dust Management Taskforce, including the transfer of operation and maintenance of the Port Hedland Industries Council air quality monitoring network to the Department and the development and implementation of dust management guidelines for port operators at Port Hedland.

It is anticipated that the development of dust management guidelines will result in a tangible improvement in Port Hedland’s air quality when implemented.

**Relevant Objectives:**

- Strive to improve the amenity across the local government area
- Plan for development areas that can respond effectively to fluctuations in the economy and population change while being resilient to climate change and natural systems
- Enhance and conserve our natural environment for the social, cultural, spiritual and economic wellbeing of the community

**Strategy Response:**

- Minimise the negative health impacts from dust emitting activity on sensitive land uses

**Actions**

- Recognise the West End Improvement Plan area on the Scheme Maps.
- The Town to identify opportunities to work with key stakeholders to identify and mitigate dust from non-industry sources, with a focus on:
  - o Identifying and implementing dust mitigation options for the spoil bank;
  - o Sealing unsealed roads and undertaking regular and effective street sweeping operations;
  - o Considering greening options, including coastal dune revegetation and the establishment of a green belt around the port; and
  - o Reviewing and improving the efficacy of municipal services associated with dust control.

## Land Use Compatibility

The Town has several historically proximate land uses that if developed today would need to consider the risk posed to the sensitive land uses (such as residential, schools, hospitals etc.).

### Relevant Objectives:

- Protect strategic industry from sensitive and incompatible land uses
- Facilitate consolidated urban form that maximises the efficient use of existing and planned infrastructure
- Plan for a diverse range of housing typologies

### Strategy Response:

- Provide for the separation of industrial land uses which result in significant offsite impacts and other emitting activities from sensitive land uses

### Actions

- Provide buffer zones to existing landfill and wastewater treatment plants and restrict the permissibility of land uses within those buffers.
- Protect established freight rail corridors from encroachment of sensitive land uses in accordance with State Planning Policy 5.4 - Road and rail noise.

## Our Built Environment

### Urban Growth

#### Housing

The Pilbara Port City Growth Plan (the ‘Growth Plan’) was released in 2012 and referenced above was based on overly optimistic population forecasts and aspired to accommodate a total population of at least 50,000 people by 2031.

This Strategy adopts more realistic ‘conservative’ and ‘aspirational’ population scenarios to plan for a more rational approach to the provision of land for housing. The Strategy Maps identify sufficient land to accommodate projected population growth within the 15-year life of this Strategy and promotes infill development over the release of land for new estates and the development of land in areas of high amenity, such as in proximity to the South Hedland City Centre. The Strategy provides flexibility for the release of land to the market quickly should demand increase suddenly.

This Strategy prioritises the release of land in Port Hedland and South Hedland localities to accommodate the population scenarios that underpin this Strategy. The Strategy Maps prioritise the release of land for urban development generally as follows:

Short-term (0-5 years)	Medium-term (6-10 years)	Long-term (10+ years)
<b>Port Hedland</b>		
Telstra tower site		
The recreation and former detention centre site		
Former Waste Water Treatment Plant (WWTP) site		
Portion of McGregor Street Sporting Precinct		
	Athol Street Urban Development site	
		Pretty Pool Stage 3a
		The Stables Precinct
<b>South Hedland</b>		
Various infill development sites, including Koombana Structure Plan Area		
Residential land identified within the City Centre		
Land immediately adjacent to the City Centre, including portion of Western Edge structure plan within 400m of the City Centre		
	Hamilton Road Structure Plan area	
	Western Edge Structure Plan area	
		Osprey Rural Structure Plan area

Given the extent of land provided for residential development as set out on the Strategy Maps, particularly the extent of land identified in South Hedland, the Town does not support the rezoning of ‘Rural’ land over and above what is provided for on the Strategy Maps.

## Rural Residential

**The existing rural residential estates are provided in the localities of Boodarie, Pippingarra and Redbank and in total cater for approximately 320 hectares of rural living development.**

The following existing rural residential estates are recognised and protected within the Strategy and provide a sufficient supply of rural residential lifestyle property within the district:

- Redbank estate;
- Bosna, Turner River and Quartz estates in Boodarie; and
- 12-mile estate in Pippingarra.

On the basis of the current provision of land for Rural Residential purposes and in accordance with State planning policy, the provision of land for new rural residential development is not supported.

## Workforce Accommodation

**Workforce accommodation approved pursuant to *State Agreement Acts and the Mining Act 1978* are exempt to the extent that the provisions of those Acts override the *Planning and Development Act 2005* and the local planning scheme.**

The Town has adopted a position statement on the approval and management of workforce accommodation.

The Town recognises that workforce accommodation is a legitimate means of providing accommodation to respond to short-term demands such as construction workforces, periodic maintenance shutdown workforces, and for long distance freight transport workforces, and in this context are an invaluable accommodation resource for industry.

Unless exceptional circumstances apply and depending on the distance from Port Hedland, the Town supports permanent residential settlement for operational workforces that enhance community integration, growth and sustainability and mental health outcomes for industry workers. Where operational workforce accommodation is used, industry should give due regard to the development of plans to transition workers to residential accommodation options.

The Town supports workforce accommodation for projects located within reasonable proximity of Port Hedland, being collocated within the Town in accordance with the zoning requirements of the Scheme. This excludes Drivers' Accommodation where accommodation is small scale and likely to have limited impact on the Town.

The Town also recognises the opportunity to reuse mine infrastructure associated with workforce accommodation and other mine infrastructure once the mine use has ceased. The Town will actively seek to work with mining companies to retain infrastructure in-situ for reuse, where appropriate.

Remote workforce accommodation should be of a requisite standard and amenity to support the health and wellbeing of workers.

**Relevant Objectives:**

- Plan for development areas that can effectively respond to fluctuations in the economy and population change while being resilient to climate change and natural systems.
- Facilitate consolidated urban form that maximises the efficient use of existing and planned infrastructure.
- Plan for a diverse range of housing typologies.

**Strategy Response:**

- Provide sufficient land to meet predicted population growth and which provides diversity in housing choice

**Actions**

**Housing**

- The Town to prepare a Local Housing Strategy to establish a strategic direction for the review of residential density, response to housing issues and to identify appropriate locations to accommodate population growth and change.
- Land for housing is identified on the Strategy Maps and will be prioritised as follows:
  - o Priority urban land – which is land already zoned and serviced for urban development and which is located in proximity to services and amenity. This land should be prioritised for subdivision and development ahead of other areas;
  - o Future urban land – which is land zoned ‘Urban Development’ under LPS7, typically located on the fringe of existing urban land and subject to structure planning requirements;
  - o Development Investigation Areas – being land that may be suitable for urban development, following the preparation of the necessary technical studies to resolve site constraints and servicing, in support of the necessary scheme amendment and/or structure planning processes.
- In considering structure plans proposing residential development, the Town will seek the following outcomes:
  - o provision of a variety of lot sizes and diversity of housing typologies;
  - o promotion of increased dwelling densities in proximity to activity centres and other areas of amenity;
  - o provision of appropriate levels of community services and facilities;
  - o provision of walking and cycling infrastructure;
  - o provision of sufficient active and passive public open space;
  - o protection of environmental values, including visual quality and amenity;
  - o assessment of the environmental health risk;
  - o consistency with Liveable Neighbourhoods or equivalent document;
  - o consistency with Better Urban Water Management; and
  - o consistency with the Government Sewerage Policy.
- Subdivision and development shall provide full urban services including reticulated sewerage.

**Rural Residential**

- The Town will not support any new proposals to rezone Rural land for Rural Residential purposes.
- Small scale subdivision of existing land zoned for Rural Residential purposes may be supported on a case by case basis, having regard to the following:
  - o Land capability;
  - o Ability to adequately sewer the land;
  - o Flooding and inundation;
  - o Bushfire risk; and
  - o Servicing and infrastructure availability.

**Relevant Objectives:**

- Plan for development areas that can effectively respond to fluctuations in the economy and population change while being resilient to climate change and natural systems.
- Facilitate consolidated urban form that maximises the efficient use of existing and planned infrastructure.
- Plan for a diverse range of housing typologies.

**Strategy Response:**

- Provide sufficient land to meet predicted population growth and which provides diversity in housing choice

**Workforce Accommodation**

- Include the following specific provisions within LPS7 to address the provision of Workforce Accommodation:

*In exercising discretion in relation to a development application for workforce accommodation, the local government shall consider the following:*

- o *regard for the applicable Local Planning Policy; and*
- o *appropriateness of the scale and design and standard of the accommodation in the context of the location and its integration with the surrounding development.*

*Development applications for all time-limited workforce accommodation shall, to the local government's satisfaction, be accompanied by information and plans indicating how and when the development will be removed and the site rehabilitated or developed for a subsequent use which is consistent with the intent of the zone.*

*The local government may require, by signed agreement, a commitment to the date and details of rehabilitation and development of a subsequent use the subject of subclause (2).*

- Include a supplemental provision within LPS7 which sets out the requirement for proposals for mining operations to be referred to the local government to give due consideration of the effects of the proposal on the planning of the district.
- Develop a local planning policy to guide the consideration of applications for workforce accommodation.
- Work with mining companies to retain and reuse mine infrastructure left in-situ to support alternative land use outcomes.

Within the Port Hedland district there are a number of distinct localities that have unique land use characteristics that warrant a precinct-based response. These precincts are identified at Figure 3 and addressed below.

## West End Precinct

### Precinct Status

**The West End Precinct falls outside the local planning strategy and local planning scheme boundaries as a result of a decision of the Government of Western Australia to implement the recommendations of the Port Hedland Dust Management Taskforce (the Taskforce).**

**The Taskforce was convened in response to the EPA raising concern regarding regular exceedance of the National Environmental Protection Measure for dust concentrations permitted for residential development in the West End precinct, defined between the Esplanade and Taplin Street.**

The Taskforce prepared the *Port Hedland Air Quality and Noise Management Plan*, the recommendations of which were adopted by Cabinet in January 2010. The plan provided a broad-based implementation strategy and governance framework to manage the potential health risks posed by dust levels in the 'West End'.

In relation to land use planning, the Plan recommended a precautionary approach that residential development should occur predominantly in the eastern areas of Port Hedland. Regarding existing residential areas in the West End, Amendment 22 (gazetted on 27 April 2012) introduced provisions into the Town's TPS5 to promote housing redevelopment that discouraged long-term residency by those more at risk from exposure to dust.

In 2016, the Taskforce considered the findings of the Department of Health's 2016 report: *The Port Hedland Air Quality Health Risk Assessment for Particulate Matter* and provided recommendations to the Government through the *Port Hedland Dust Management Taskforce Report to Government* (Taskforce Report).

After considering the Taskforce Report and submissions received, on 15 October 2018 the Government decided that a whole-of-government approach was required to deal with this issue, including adopting land use planning recommendations aimed at prohibiting sensitive land uses and restricting population growth in the West End of Port Hedland. To give effect to this, the Government requested the Western Australian Planning Commission (WAPC) to consider preparing an Improvement Plan and Improvement Scheme designed to achieve the land use outcomes of the Taskforce Report.

On 13 June 2019, following consultation with the Town, the WAPC certified Improvement Plan No. 50. It was accepted by the Minister for Planning on 4 July 2019, subsequently accepted by the Governor's deputy and gazetted on 30 July 2019. The key objective of IP50 is to 'guide the implementation of the State Government's response to the *Port Hedland Dust Management Taskforce Report to Government* (2016) and it establishes a statutory framework in which an improvement scheme can be prepared and implemented over the precinct.

Improvement Plan No. 50 provides the strategic framework to guide the proposed preparation of an Improvement Scheme over the West End of Port Hedland aimed at implementing the Government's response to the Taskforce Report. On 21 August 2019, the WAPC resolved to prepare an Improvement Scheme to implement the objectives of Improvement Plan No. 50 and the Government's response to the Taskforce Report. The West End Improvement Scheme was initiated on 19 February 2020 and is pending release by the Department of Planning, Lands and Heritage.

Areas of land that are contained within IP 50 but which are not covered by the West End Improvement Scheme are still subject to the Town's local planning scheme (currently TPS5, to be replaced by LPS7).

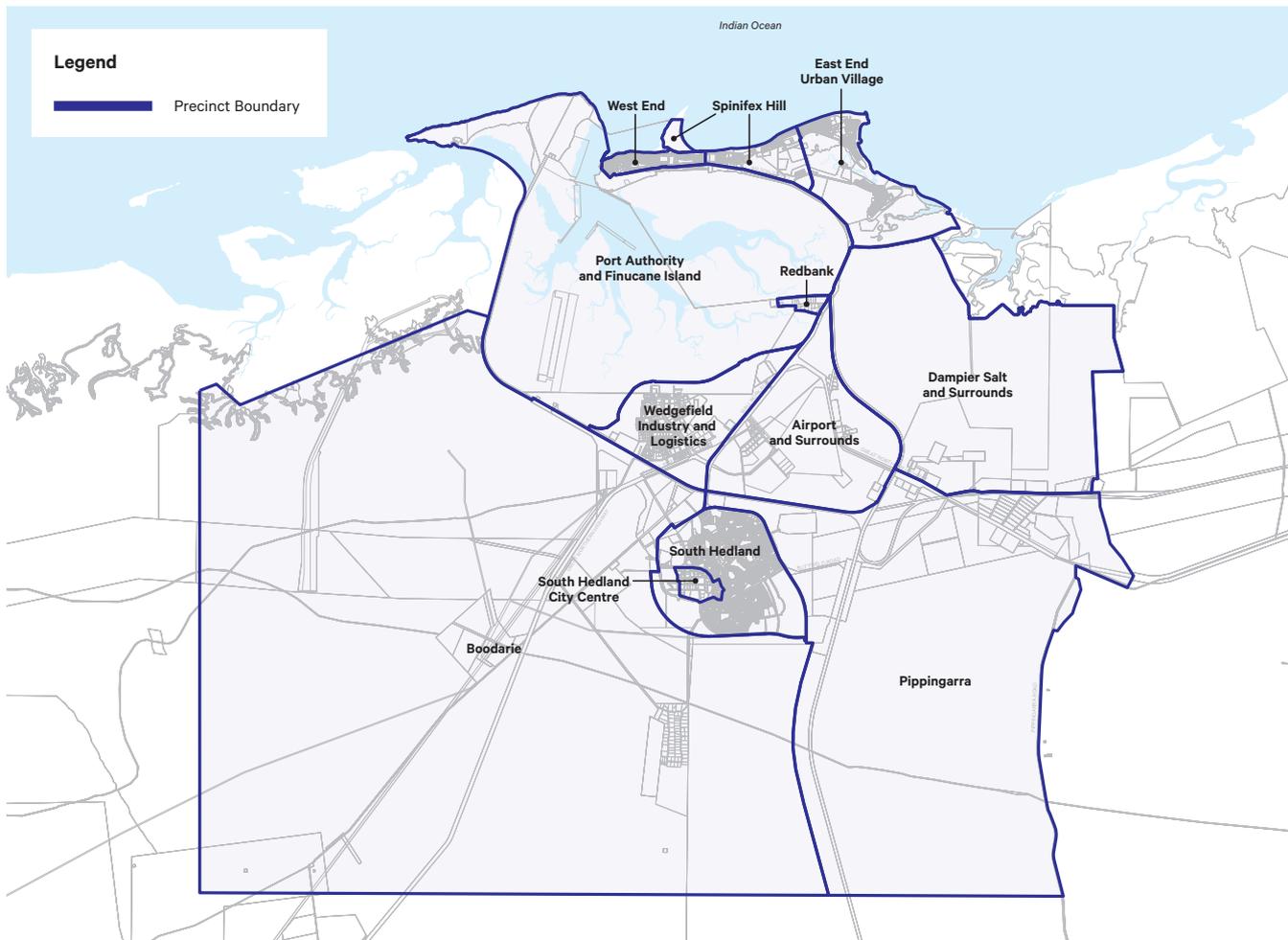


Figure 3 – Draft Local Planning Strategy

### Strategy Response

The West End precinct is removed from the Town of Port Hedland Local Planning Strategy and Local Planning Scheme area by virtue of the West End Improvement Scheme. Notwithstanding, there are still a number of overarching strategies that will have a bearing on the future planning within the West End precinct, including the following:

- Port Hedland Townsite Coastal Hazard Risk Management and Adaptation Plan;
- Town of Port Hedland Public Open Space Strategy;
- Town of Port Hedland Arts and Culture Strategy 2019-2022;
- Town of Port Hedland Local Heritage Inventory;
- Town of Port Hedland Coastal Reserves Management Plan; and
- Port Hedland Marina and Waterfront Masterplan.

### Precinct Objectives

- To recognise Improvement Plan No. 50 and West End Improvement Scheme as the planning instruments to guide future land use and development of land within the West End Improvement Scheme.

### Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• To recognise Improvement Plan No. 50 and associated Improvement Scheme for the West End precinct.</li> </ul>	<ul style="list-style-type: none"> <li>• Scheme Map to be modified to omit the West End Improvement Scheme Area from the Scheme Map with the following notation included on the Scheme Map:</li> <li>• <i>'Refer to West End Improvement Scheme'</i>.</li> </ul>
<ul style="list-style-type: none"> <li>• Continue to recognise the importance of the role of the coastal foreshore for tourism and recreation opportunities.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop the Port Hedland Marina Precinct as a flagship public recreation facility to enhance the recreational boating experience for the local community.</li> <li>• Participate in community-led place activation strategies for the historic West End Town Centre to celebrate the rich heritage and tourism values of the precinct.</li> </ul>
<ul style="list-style-type: none"> <li>• Continue to provide an active role in planning for necessary infrastructure, services and activities within the West End precinct.</li> </ul>	<ul style="list-style-type: none"> <li>• Implement the relevant local plans and strategies within the West End precinct.</li> </ul>
<ul style="list-style-type: none"> <li>• To recognise the contribution to ambient dust concentrations from significant dust sources west of Taplin Street. Take into consideration publicly available ambient air quality information with reference to the recommended air guideline value for health (70µg/m<sup>3</sup> for PM10 averaged over 24 hours).</li> </ul>	<ul style="list-style-type: none"> <li>• Seek Department of Health advice when assessing applications for sensitive land uses near to the West End.</li> </ul>

## Spinifex Hill

### Precinct Status

The Spinifex Hill precinct relates to land generally located east of Taplin Street and west of Cooke Point Drive and includes such notable features as the Boulevard Shopping Centre, McGregor Street Sporting Precinct and Cemetery Beach.

The housing stock throughout this area is well established and is coded R12.5/R30 under the Town's Local Planning Scheme No. 5 with a corresponding clause (clause 5.1.5) that allows the application of the R30 density code for properties provided with reticulated sewer. All residential lots within this precinct are now provided with reticulated sewer, so this clause is redundant in its application.

Land within this precinct is prone to coastal erosion and inundation as identified within the Port Hedland Townsite CHRMAP and therefore the new local planning scheme will need to identify appropriate adaptation responses to these known risks.

The Boulevard Shopping Centre provides for the daily and weekly shopping needs of households within Port Hedland and is the primary retail hub which services the Port Hedland townsite.

Tjalka Boorda (also known as Three Mile) is a former Aboriginal community and town-based-reserve that has gradually been decommissioned over time with only one remaining dwelling occupied within the estate.

### Strategy Response

Given that all residential lots are provided with reticulated sewer, it is proposed to remove the split coding over these lots and code these residential lots as R30. In time, the Town should prepare a Local Housing Strategy which may inform the need to redevelop established residential property within the Port Hedland townsite with a view to replacing the standard single house lot product with a greater range of housing typologies.

This precinct contains two sites with significant development potential for residential purposes, being the Telstra Tower site (Lot 102 on Deposited Plan 75275) and the former remediated Wastewater Treatment Plant site (Lot 952 on Deposited Plan 210755 and Lot 2046 on Deposited Plan 210755). These sites are relatively unconstrained in that they are not identified as being prone to coastal erosion and inundation and therefore should be prioritised for redevelopment over more heavily constrained urban land.

The existing Boulevard Shopping centre will remain as the primary centre, providing retail services to Port Hedland based residents. Additional local convenience retailing may be considered in this precinct to complement the retailing on offer within the Boulevard Shopping Centre. In order to recognise the Boulevard Shopping Centre as the primary retail centre within the Port Hedland townsite, it is proposed to extend the Commercial zone over several additional properties adjacent to the centre, including land currently occupied by the Hedland Christian Church, to allow for further expansion and land use synergies over time.

Access to recreation facilities will be improved over time through the progressive development of the McGregor Street Sports Precinct Masterplan.

It is proposed to zone the former Tjalka Boorda site as 'Tourism' to promote the opportunity for tourism ventures to be pursued on this site.

The existing St Cecilia's Catholic Primary School is proposed to be rezoned from Public Purposes to a 'Private Institution' zone reflecting the private education nature of the use.

### Precinct Objectives

- Zone sufficient land to accommodate residential growth within the Port Hedland townsite.
- Ensure development provides an appropriate adaptation response to coastal processes.

- Maintain the role of the Boulevard commercial centre as a Neighbourhood Centre which will not compete with the South Hedland City Centre.
- Improve the provision of sport and recreation facilities through the implementation of the McGregor Street Sporting Master Plan.
- Provide sufficient zoned land for tourism purposes.
- Protect the established activity centre hierarchy.

### Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• Provide a logical and efficient staged approach to the release of land for residential purposes.</li> </ul>	<ul style="list-style-type: none"> <li>• Zone the following sites as 'Urban Development' to allow for structure planning for residential purposes:                             <ul style="list-style-type: none"> <li>o The Telstra Tower site (Lot 102 on Deposited Plan 75275);</li> <li>o The former Wastewater Treatment Plant site (Lot 952 on Deposited Plan 210755 and Lot 2046 on Deposited Plan 210755).</li> </ul> </li> <li>• Repurpose surplus open space for residential or mixed use development following the development of the McGregor Street Sporting Precinct Masterplan sporting fields.</li> </ul>
<ul style="list-style-type: none"> <li>• Ensure the established activity centre hierarchy is maintained.</li> </ul>	<ul style="list-style-type: none"> <li>• Extend the 'Commercial' zone over Lots 5827 and 5828 Anderson Street and Lots 500 and 2065 Wilson Street, Port Hedland.</li> </ul>
<ul style="list-style-type: none"> <li>• Provide flexibility to facilitate appropriate development outcomes on the former Tjalka Boorda community site.</li> </ul>	<ul style="list-style-type: none"> <li>• Zone the former Tjalka Boorda site as 'Tourism'.</li> </ul>
<ul style="list-style-type: none"> <li>• Provide a statutory response to coastal hazards within the local planning scheme.</li> </ul>	<ul style="list-style-type: none"> <li>• Include a CHRMAP Special Control Area which requires development to provide the following adaptation responses to known coastal hazards:                             <ul style="list-style-type: none"> <li>o Coastal erosion: Managed retreat - avoid new development on the seaward side of the 100-year coastal erosion line except where engineered coastal protection structures can be funded and developed;</li> <li>o Coastal inundation: Accommodate - habitable floor levels for development on land prone to storm surge inundation, to be raised above the modeled storm surge level.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Ensure sufficient land set aside for recreation and open space.</li> </ul>	<ul style="list-style-type: none"> <li>• Reserve the McGregor Street Sporting Precinct as Public Open Space.</li> <li>• Progressively implement the McGregor Street Sporting Precinct Master Plan.</li> </ul>

## East End Urban Village

### Precinct Status

The East Urban Village is primarily a residential area capitalising on the high level of amenity offered by the precinct's connection to the coast and mangrove environments. It is this residential amenity that makes the precinct a highly sought after area for development. Much of the remaining vacant land within Port Hedland is located within the East Urban Village precinct, however, the majority of this land is constrained as a result of being low lying and prone to coastal inundation and flooding, or due to the land's proximity to environmental habitats (turtle nesting sites, mangroves) or heavy rail infrastructure.

In recent years, the State government has determined that permanent residential is no longer an appropriate land use within the nearby West End precinct due to the impacts of dust on air quality. The State government has recommended that population growth within the West End precinct is restricted and the government is in the process of implementing a voluntary buy back scheme for existing permanent residential housing in the West End Precinct. Over time and as a consequence of the Port Hedland Voluntary Buy-back Scheme and Implementation Plan 50, permanent residential populations will likely decline in the West End. Accordingly, there is a need to identify sufficient and appropriate land for future residential development within wider Port Hedland, including Spinifex Hill and the East Urban Village, and prioritise its release through the planning framework, from least to most constrained.

A CHRMAP has been prepared in relation to the Port Hedland townsite. This plan identifies land that is prone to coastal erosion and/or coastal inundation. The Town's LPS7 will need to identify appropriate adaptation responses to these known risks.

### Strategy Response

The former detention centre and recreation centre located at 15 Dempster Street and 13 Keesing Street Port Hedland respectively are considered priority sites for redevelopment to accommodate new housing within Port Hedland. These sites should be prioritised for residential development ahead of more constrained land within Port Hedland.

In addition to the above sites, it is also proposed to identify a number of Development Investigation Areas, being areas of land that may be suitable for residential development but have a number of constraints that would need to be addressed prior to the land being zoned for development purposes. These Development Investigation Areas are listed below:

- Athol Street, being portion of Lot 556 on Plan 74214 (Reserve 30768);
- the Stables Precinct, being portion of Lot 556 on Plan 74214 (Reserve 30768) and portion of adjacent vacant crown land; and
- a portion of Pretty Pool Stage 3a, excluding the portion located within the 100-year coastal erosion hazard line.

Land to the south of Styles Road was previously identified for residential purposes under the Port City Growth Plan, however this land will not be required to accommodate potential residential growth within the life of this Strategy. It is also located in proximity to BHP's rail infrastructure and for this reason, portions of the area are not considered an appropriate location for residential use.

### Precinct Objectives

- Zone sufficient land to accommodate residential growth within the Port Hedland townsite.
- Ensure that any further urban development within the precinct is compatible with its environmental values.
- Plan for the efficient staged release of land for residential purposes with priority given to the development of less constrained land.
- Ensure development provides an appropriate adaptation response to coastal processes.
- Give particular priority to the conservation and management of mangroves and tidal flats.
- Permit additional tourist facilities, provided these do not detract from the district recreational function and the environmental values of the precinct.

## Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>Provide a logical and efficient staged approach to the release of land for residential purposes.</li> </ul>	<ul style="list-style-type: none"> <li>Zone the former detention centre and recreation centre located at 15 Dempster Street and 13 Keesing Street, Port Hedland respectively as 'Urban Development' to allow for structure planning for mixed use and residential development.</li> </ul>
<ul style="list-style-type: none"> <li>Progressively de-constrain land for future residential purposes.</li> </ul>	<ul style="list-style-type: none"> <li>The following sites being identified as Development Investigation Areas. These areas may be considered for residential development:                             <ul style="list-style-type: none"> <li>Athol Street, being portion of Lot 556 on Plan 74214 (Reserve 30768), subject to resolving the following issues:                                     <ul style="list-style-type: none"> <li>flooding and fill requirements;</li> <li>bushfire hazard;</li> <li>consideration as to any impacts on heritage sites (i.e. World War Two Rifle Range and Merv's Lookout).</li> </ul> </li> <li>The Stables Precinct, being portion of Lot 556 on Plan 74214 (Reserve 30768) and portion of adjacent vacant crown land, subject to resolving the following issues:                                     <ul style="list-style-type: none"> <li>flooding and fill requirements;</li> <li>bushfire hazard;</li> <li>relocation of the Port Hedland Pony Club.</li> </ul> </li> <li>Pretty Pool Stage 3a, subject to resolving the following issues:                                     <ul style="list-style-type: none"> <li>impact on turtle nesting areas;</li> <li>flooding and fill requirements;</li> <li>bushfire hazard;</li> <li>coastal erosion processes.</li> </ul> </li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Provide a statutory response to coastal hazards within the local planning scheme.</li> </ul>	<ul style="list-style-type: none"> <li>Include a CHRMAP Special Control Area which requires development to provide the following adaptation responses to known coastal hazards:                             <ul style="list-style-type: none"> <li>coastal erosion: managed retreat - avoid new development on the seaward side of the 100-year coastal erosion line, except where engineered coastal protection structures can be funded and developed;</li> <li>coastal inundation: accommodate habitable floor levels for development on land prone to storm surge inundation to be raised above the modeled storm surge level.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Recognise and reflect existing development outcomes where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>Normalise the established Pretty Pool Structure Plan.</li> <li>Rezone Lot 11 Keesing Street, Lot 12 Dempster Street and Lot 2513 Dempster Street from 'Commercial' to 'Mixed Use'.</li> </ul>

## Port Authority and Finucane Island

### Precinct Status

The Port of Port Hedland is the world's largest bulk export port, exporting approximately 518 million tonnes in the 2017/18 financial year. Iron ore exports comprise almost all trade through the port. The vast majority of export materials is iron ore (approximately 98 percent). At present there are a total of 19 berths within Port Hedland harbour where 4 berths are designated for public use while the remainder are in private ownership, occupied by major resource industry.

Recent studies by the Pilbara Ports Authority indicate new and increasing trade such as lithium, livestock and ammonium nitrate will lead to congestion across Pilbara Ports Authority's three common-user berths at the Port of Port Hedland in the short-term. Expansion of trading goods in lithium (and related products) and livestock is likely to require expansion of port facilities.

The proposed Lumsden Point General Cargo Facility in Port Hedland will be designed to facilitate increased trade growth of general cargo and mineral concentrates across the common-user berths. The proposed facility is located in the inner harbour and will capitalise on land reclaimed during previous port expansion projects, as well as the realignment of the Great Northern Highway in 2014. The proposed development will consist of two new general cargo wharves, lay-down areas and a 95-hectare logistics hub. Land remediation works and initial dredging have commenced to provide a 35-hectare area for development.

At present there are no passenger terminals in Port Hedland (with the exception of intermittent cruise ship visitation) although many strategic plans suggest that this line of trade should be developed. The port enjoys strong connectivity to the existing Wedgefield industrial precinct and Boodarie Strategic Industrial Area. Finucane Island's western end is a popular recreation area for fishing and boating and also provides a scenic outlook over mangroves.

### Strategy Response

This strategy recognises the primacy of the port and the need to continue to allow for the expansion of port infrastructure and operations. The port and the strategic infrastructure corridors that provide access to the port need to be protected from the encroachment of sensitive land uses, such as residential.

Port operations are exempt from requiring planning approval pursuant to the Town's Local Planning Scheme within dedicated port boundaries. It is proposed to reserve the port area as 'Strategic Infrastructure' which reflects the nature of the port operations.

### Precinct Objectives

- Recognise and protect the primacy of the port to allow for sustainable development of port facilities.
- Ensure that strategic infrastructure that services the port is recognised and protected.
- Provide for continued public access to Finucane Island for recreational purposes.
- Ensure strategic industrial land is set aside to support port operations.

### Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• To recognise and protect the primacy of the port within the Local Planning Scheme.</li> </ul>	<ul style="list-style-type: none"> <li>• The Local Planning Scheme to include the following objective:               <ul style="list-style-type: none"> <li>◦ To recognise, protect and complement the primacy of the port.</li> </ul> </li> <li>• Reserve the Port operational land as 'Strategic Infrastructure under LPS7.</li> </ul>
<ul style="list-style-type: none"> <li>• To ensure that sensitive land uses do not impede the operations of the port or the strategic infrastructure corridors that service the port.</li> </ul>	<ul style="list-style-type: none"> <li>• In accordance with SPP 5.4, Identify a 200m referral area for sensitive land uses in relation to freight rail corridors on the Strategy Maps;</li> <li>• Reserve the freight rail corridors as 'Railways' Reserve on the Local Planning Scheme maps.</li> </ul>
<ul style="list-style-type: none"> <li>• Enable continuation of public access to Finucane Island for public recreation</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to engage with the Pilbara Ports Authority to maintain and protect public access to the recreation reserve</li> </ul>

## Redbank

### Precinct Status

Redbank is an established rural residential estate that also includes a number of storage and rural industrial land uses.

The estate is serviced by Redbank Road which intersects with Wilson Road, approximately 400m south of Redbank Bridge. Redbank Road is a sealed road with a RAV10 classification however the road is not compliant with RAV10 requirements due to restrictions associated with the intersection with Wilson Street, its road geometry and carriageway widths.

The precinct also includes the former power station site which is zoned 'Commercial' under Town Planning Scheme No. 5.

### Strategy Response

Redbank is an established rural residential estate and this strategy recognises the retention of this estate for the short to medium term. Further expansion of rural-residential subdivision is not supported due to a number of factors, including:

- public health issues associated with mosquitos and sandflies breeding in the nearby mangrove environment;
- the risk of coastal inundation;
- environmental considerations associated with the mangrove environment;
- vehicle access considerations; and
- the proximity to port operations.

Further industrial uses within Redbank are not supported due to the incompatible nature with the predominant residential use of the precinct and due to the access limitations of Redbank Road.

In the longer term, the ultimate land use scenario is for Redbank to form part of the wider Port area due to it being one of the many 'fingers' of land that extends into the inlet. Redbank Road would need to be upgraded if access to the Port were to be contemplated.

### Precinct Objectives

- Protect the rural residential amenity of Redbank.
- Protect the existing and future port operations.

### Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• Prevent further expansion of rural residential subdivision.</li> </ul>	<ul style="list-style-type: none"> <li>• Retain the existing 'Rural Residential' zone for rural residential lots.</li> <li>• Do not support further rezoning or subdivision for rural residential purposes at Redbank.</li> </ul>
<ul style="list-style-type: none"> <li>• Provide a transition of land use between the existing rural-residential lots and port.</li> </ul>	<ul style="list-style-type: none"> <li>• Zone the former power station site as 'Light Industry' to provide a transition to the port.</li> </ul>

## Dampier Salt and Surrounds

### Precinct Status

The Dampier Salt and Surrounds precinct will continue to service the growth of Dampier Salt operations.

The salt ponds and piles are clearly recognised within the landscape. Also located within this precinct is the Hedland Kart Club and Explosives Reserve. The Explosives Reserve includes a number of private operators providing commercial explosives expertise to the mining industry.

### Strategy Response

The Strategy recognises the need to protect land for the expansion of Dampier Salt operations by limiting the encroachment of any sensitive land uses within this precinct. It is proposed to zone land associated with the existing and future Dampier Salt operations as 'Strategic Industry' under LPS7.

The majority of the explosives reserve will continue to be reserved for Public Purposes; however, it is proposed to recognise the commercial operations on freehold land through an 'Industry' zone. Any buffer requirements associated with the storage of explosive goods should be contained on-site, noting the proximity of these uses to the Port Haven camp and 12 mile rural residential estate.

### Precinct Objectives

- Ensure the ongoing protection of land associated with the expansion of Dampier Salt.
- Provide for the storage of dangerous goods within the explosives reserve with any associated buffers to be contained on site.
- Continued support for leases to be granted to commercial operators within the explosives reserve provided leases address relevant planning and access considerations.

### Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• Provide sufficient land to support strategic industry.</li> </ul>	<ul style="list-style-type: none"> <li>• Zone Lot 504 on Plan 65734, Lot 505 on Plan 70785 and Lot 1446 on Plan 211057 'Industry' under LPS7 in recognition of the commercial nature of these uses.</li> <li>• Continue to support appropriately planned lease applications within the explosives reserve for explosives related land uses.</li> <li>• Maintain separation of sensitive land uses to this precinct to allow for the continued expansion of strategic industry.</li> <li>• Promote the consolidation of access to Great Northern Highway.</li> </ul>
<ul style="list-style-type: none"> <li>• Protect land associated with the Dampier Salt operations</li> </ul>	<ul style="list-style-type: none"> <li>• Zone land associated with the Dampier Salt operations as 'Strategic Industry' under LPS7.</li> </ul>
<ul style="list-style-type: none"> <li>• Protect the rural residential nature of the nearby 12 mile rural residential estate</li> </ul>	<ul style="list-style-type: none"> <li>• Promote rural residential land for lifestyle residential use and discourage encroaching industrial development.</li> </ul>

## Wedgefield Industry and Logistics

### Precinct Status

Wedgefield consists of two distinct 'sub-precincts'. The older part of Wedgefield, located west of Pinga Street and north of Anthill Street, was originally developed in the 1960s and 70s as a light industrial precinct and this is evident in the lot configuration, which consists of primarily smaller lots typical of a light industrial estate with narrow 20m – 30m road reservations. However, the types of industrial uses in this part of Wedgefield has evolved to accommodate a range of industrial uses, including concrete batching plants, tyre and scrap metal storage, transport depots and general industry.

The second sub-precinct is the new estate referred to as Hedland Junction. This estate has been purpose designed to accommodate industries reliant on heavy transportation and the road network is designed to a RAV10 standard. The subdivision and development of the Hedland Junction precinct is guided by the Wedgefield Industrial Estate Structure Plan which identifies a majority of the precinct as 'Transport Development'.

Transport logistics have also made technical advancements over time, with longer combination vehicles (up to quads) becoming more prevalent within Wedgefield. The existing road infrastructure however is inadequate to accommodate these longer combinations and legitimate RAV10 traffic movements are unable to be accommodated within the older part of Wedgefield. The road network would require substantial investment by the Town to bring these roads up to a RAV10 compliant standard. The Town is in the process of investigating several options to upgrade specific 'loop' roads to improve RAV access in this part of the estate, while simultaneously exploring reducing RAV coverage over certain roads. In addition to this issue, there are a large number of caretaker's dwellings located in this part of Wedgefield which are typically considered incompatible with these heavier industries.

### Strategy Response

In response to the issues identified in the older part of Wedgefield, it is proposed to zone this part of Wedgefield 'Light Industry' while recognising the existing legitimate caretaker's dwellings as having 'additional use' rights. The existing general industrial and transport depot uses would retain 'non-conforming use' rights; however, the light industrial zoning would prevent further proliferation of both caretaker's dwellings and general industrial uses in this part of Wedgefield.

The newer established part of Wedgefield will be zoned 'General Industry' to provide sufficient land for general industries and transport logistics to meet the medium to longer term demand for these types of uses within the Town.

The undeveloped part of Wedgefield will be zoned 'Industrial Development' and the existing Wedgefield Industrial Estate Structure Plan will need to be reviewed and amended to ensure that land use outcomes consistent with the 'General Industry' zone can be achieved.

The 'Caretaker's dwelling' use is proposed to be a use that is not permitted in the 'General Industry' zone to protect the strategic nature of this land from the encroachment of sensitive land uses.

The northern part of Wedgefield is inclusive of land vested with the Pilbara Port Authority and leased for commercial/industrial activities and functions as part of the Wedgefield industrial area. The realignment of Great Northern Highway to the north of Wedgefield in 2014 has resulted in this land being segregated from the port by primary road reservation and as a result, the zoning of the land requires rationalisation.

### Precinct Objectives

- Resolve land use conflicts between industrial and sensitive land uses.
- Provide a safe and efficient road network to support transport logistics.
- Provide sufficient industrial land to meet long term requirements for industry.
- Protect open swale drainage networks from encroaching development.
- Improve the general amenity of industrial areas over time.

## Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>Prevent further proliferation of general and transport logistic uses within the older part of Wedgefield.</li> <li>Prevent further proliferation of caretaker's dwellings and temporary accommodation land uses within dedicated industrial precincts.</li> </ul>	<ul style="list-style-type: none"> <li>Zone the older part of Wedgefield as Light Industry</li> <li>List 'Caretaker's Dwelling' and other temporary accommodation land uses as an 'X' use within the 'Light Industry' and 'General Industry' zones.</li> <li>Identify existing operating 'Caretaker's Dwellings' as an Additional Use within the Light Industry zone.</li> </ul>
<ul style="list-style-type: none"> <li>Identify and progress options to improve the road and drainage network in the older part of Wedgefield to accommodate existing transport logistics industry, where feasible.</li> </ul>	<ul style="list-style-type: none"> <li>Develop an options and feasibility assessment of the Wedgefield road network to identify feasible options to upgrade parts of the road network to accommodate RAV10 accessibility requirements.</li> <li>Develop and implement the recommendations of the Town's Heavy Vehicle Access Strategy including the following recommendations specific to Wedgefield:               <ul style="list-style-type: none"> <li>review RAV status of road in Wedgefield through data collection and monitoring of land use over time; and</li> <li>develop and implement an engagement plan with transport logistics industries.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Ensure that sufficient land is set aside for general industry to meet the longer term requirements of industry within the Town.</li> </ul>	<ul style="list-style-type: none"> <li>Zone the developed portion of Hedland Junction as 'General Industry' to provide for a range of general industrial uses.</li> <li>Zone the undeveloped portion of Hedland Junction as 'Industrial Development' to allow land use, subdivision and development to be progressed in accordance with a Structure Plan.</li> <li>Review and amend the Wedgefield Industrial Estate Structure Plan to ensure that it supports land use and development outcomes consistent with the intent of the 'General Industry' zone of LPS7.</li> </ul>
<ul style="list-style-type: none"> <li>Develop and impose minimum development standards on new industrial development relating to setbacks, landscaping and verge treatment to improve the amenity of industrial areas over time.</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate minimum development standards and requirements for industrial land uses within LPS7.</li> <li>Prepare a local planning policy that identifies minimum development standards and requirements for industrial land uses and protects open swale drainage networks from encroaching development.</li> </ul>

## Airport and Surrounds

### Precinct Status

Pilbara's International Airport (PHIA) is a major gateway to the North West of Australia and provides domestic and international flight options. In 2016, the Airport was acquired from the Town by a private operator through a 50-year lease.

Up to 50 commercial flights are offered per week from PHIA, with direct services to Bali, Brisbane and Perth. In 2017, there were over 4,600 aeroplane movements and 350,000 passenger movements from the airport. PHIA also provides for international freight services, charter and flight training facilities, a dedicated heliport facility and the region's Royal Flying Doctors Service. The main driver of the passenger market for Port Hedland is the mining sector and in particular, iron ore and base metals.

While the PHIA is the major airport for the Pilbara, its commercial viability is under threat from the proliferation of mine site based aerodromes, which take patronage away from the airport. These aerodromes are often exempt from planning approval under a local planning scheme and are provided under separate legislative instruments, such as individual State Agreements, land tenure negotiations under the *Land Administrative Act 1997* and through mining tenement applications under the *Mining Act 1978*.

The airport's operators are currently undertaking a number of upgrades to the airport to bring it up to a modern standard. The Airport provides a key role in the Pilbara, being the primary air transport hub and provides important air transport services to the community and to business in supporting the Port.

In addition to infrastructure associated with airport operations, two workforce accommodation facilities are located within the precinct, namely Mia Mia Port Hedland hotel and the ESS Port Haven Village.

The precinct also accommodates the Kingsford Smith Business Park, the majority of which is not part of the Port Hedland International Airport leasehold area, providing land for bulky goods, retailing and warehouse/service industry developments.

### Strategy Response

The Port Hedland International Airport Master Plan 2018-2038 establishes the following vision for the Airport:

*"to be a leading regional Australian airport and a modern, well-serviced airport which is a major domestic and international gateway airport for Western Australia. It will be the gateway to the Pilbara and a major intermodal hub."*

The Master Plan establishes six sub-precincts on airport land, namely:

- Airside Precinct;
- Northern Precinct;
- Highway Precinct;
- Freight Precinct;
- Airport Industrial Park Precinct; and
- Terminal and General Aviation Precinct.

In summary, the airport sub-precincts provide for the following:

Airport Precinct	Land Use Intent
<b>Airside Precinct</b>	Dedicated to the provision and protection of aircraft operations.
<b>Northern Precinct</b>	Proximity to the highway provides an opportunity to accommodate transport logistics industry that require access to bulk freight and laydown areas.
<b>Highway Precinct</b>	The Highway Precinct has been identified to accommodate businesses that require proximity to the airport and that could take advantage of the exposure to the Great Northern Highway.
<b>Freight Precinct</b>	The Freight Precinct has been identified to accommodate air freight and logistics uses, including freight storage, laydown yards, warehousing and distribution facilities.
<b>Airport Industrial Park Precinct</b>	The Airport Industrial Park Precinct includes the portion of the Kingsford Smith Business Park. This precinct is intended to accommodate uses that can service the port and airport.
<b>Terminal and General Aviation Precinct</b>	The Terminal and General Aviation Precinct has been set aside to service the passenger terminal and also provides for concurrent supporting or ancillary uses of the Precinct.

Main Roads WA has planned the realignment of the section of Great Northern Highway adjacent to the airport. New access arrangements to the airport will need to be constructed following the realignment of the Highway.

It will be necessary to address obstacle height limitations and Airport Noise Exposure Forecast contours within LPS7 to protect the airport operations. It is proposed that this will be implemented by way of a local planning policy.

To define land use permissibility generally in accordance with the PHIA Master Plan, it is proposed to zone the airport as 'Special Use' which will include land use permissibility generally in accordance with the PHIA Master Plan.

It is also proposed to include land use definitions for 'Airport' within LPS7. In order to address the issue of remote aerodromes impacting on the viability of the PHIA, it is proposed to list 'Airport' as an 'X' use within the 'Rural' zone.

### Precinct Objectives

- Protect options for future airport infrastructure within the precinct.
- Ensure that development within the precinct meets prevailing noise and height limitation standards associated with the operation of aircraft.
- Ensure that any commercial development reinforces the transportation functions of the airport.

### Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• Protect the Port Hedland International Airport from incompatible land use and development.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain the Airport Buffer Special Control Area to establish requirements in relation to obstacle height limits (OHL) and Australian Noise Exposure Forecast (ANEF) contours.</li> <li>• Prepare a local planning policy to implement policies in relation to ANEF and OHL mapping.</li> </ul>
<ul style="list-style-type: none"> <li>• Provide a suitable framework within LPS7 that supports the diversification of business operations on Airport land.</li> </ul>	<ul style="list-style-type: none"> <li>• Zone the Airport as 'Special Use' with land use permissibility generally in accordance with the PHIA Master Plan.</li> <li>• Include a land use definition of 'Airport' within LPS7 and list it as an 'X' use in all zones apart from the Airport site.</li> </ul>
<ul style="list-style-type: none"> <li>• Appropriately zone the Kingsford Smith Business Park.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to zone the Kingsford Smith Business Park as 'Service Commercial' under LPS7 and support development in accordance with the Kingsford Smith Business Park Design Guidelines.</li> </ul>

## Pippingarra

### Precinct Status

The Pippingarra precinct provides a rural lifestyle for some of Port Hedland’s residents. An existing rural-residential estate is located on the northern side of the Great Northern Highway, while land to the south of the highway remains rural.

The remote Aboriginal settlements of Tialka Warrra and Pippingarra exist within this precinct.

On the eastern edge of the precinct is an industrial plant and associated buffer which will constrain the location of any sensitive land uses in this part of the precinct.

Pippingarra Road is classified as a RAV 10 road on Main Roads WA networks; however, the majority of this road is unsealed and the intersection with Great Northern Highway does not allow for lane-correct movements. Pippingarra Road is considered a key regional freight route and is used by heavy haulage freight associated with mines located outside of the Port Hedland local government area.

### Strategy Response

While there is an established rural residential estate within this precinct, there is no intention to permit further expansion of rural residential in this locality. Instead, there will be a general presumption against further fragmentation of land within this precinct.

Pippingarra Road will continue to accommodate heavy freight vehicles associated with mine sites located beyond the district and may also be required to provide access should a dedicated cattle holding yard and washdown facility be located in Pippingarra. The Town is investigating potential cost sharing arrangements for maintenance costs incurred as a result of its regional freight network.

Previous studies into a preferred location for a dedicated cattle holding yard identified Pippingarra as the preferred location. The predominant Rural zoning of this precinct would allow for a cattle holding yard to be established should this eventuate.

It will also be necessary to recognise the buffer associated with the industrial plant on the Strategy Maps.

### Precinct Objectives

- To recognise and protect the amenity of the existing rural residential estate.
- To maintain a general presumption against further fragmentation of land within this precinct.

### Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• To prevent the further fragmentation of land within this precinct.</li> </ul>	<ul style="list-style-type: none"> <li>• The Town will not support the further rezoning or subdivision of land for Rural Residential purposes within this precinct.</li> </ul>
<ul style="list-style-type: none"> <li>• To minimise land use conflict resulting from a mix of rural, residential and industrial land uses.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify a generic buffer on the Strategy Maps associated with the industrial plant.</li> </ul>
<ul style="list-style-type: none"> <li>• To discourage the sprawl of ad-hoc industrial and commercial development to encourage their co-location within planned estates.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not permit industrial and commercial developments on rural zoned land that are more appropriately located within zoned industrial and commercial areas.</li> </ul>

## South Hedland

### Precinct Status

**The South Hedland precinct comprises the four original neighbourhoods of South Hedland. South Hedland was established based on the Radburn design, which has resulted in issues relating to poor accessibility and way finding, amenity, safety and sense of place.**

While well established, the precinct could benefit from improvements to the public realm to address issues related to way finding, access to useable areas of open space and general amenity improvement.

The precinct contains a substantial amount of zoned and serviced land available to accommodate residential development. The primary environmental considerations for future development relate to localised flooding and bushfire management. The Port Hedland landfill is located to the south east of this precinct and would require a planned relocation before urban development can be realised within the existing buffer area associated with the landfill.

South Hedland is well serviced by community infrastructure, which includes the Hedland Health Campus, Wanangkura Stadium, Aquatic Centre, JD Hardie youth centre, Youth Involvement Council, Matt Dann Theatre and Cinema, amongst other infrastructure.

The precinct provides a range of education opportunities, including four primary schools, a high school and the North Regional TAFE providing tertiary courses.

The wastewater treatment plant, golf club and equestrian precinct are all located to the west of South Hedland.

### Strategy Response

Due to the substantial availability of zoned and serviced land for residential development, it is necessary to coordinate the delivery of residential land through prioritisation to ensure the efficient use of existing infrastructure and to contribute to the long term activation and viability of the South Hedland City Centre. In this regard, the Town seeks to prioritise land for residential purposes, as follows:

1. existing zoned and serviced vacant infill development sites; and
2. land immediately within the South Hedland City Centre designated for residential purposes and land within a 400m walkable catchment of the City Centre.

In addition to the above, South Hedland includes the Western Edge, Osprey Rural Village and Hamilton Road Structure Plan areas, which are all zoned for urban development and have adopted structure plans in place. These development areas are on the periphery of the established part of South Hedland and the Strategy identifies these areas as 'Future Urban'. The Western End Structure Plan proposes the construction of the western ring road which will round off the development of the adjacent City Centre. The southern portion of the Osprey Rural Village Structure Plan area is encumbered by the South Hedland Landfill and separate mining dust buffers and has therefore been designated as a 'Development Investigation Area' pending relocation and/or cessation of the landfill and mining operations.

A strategy focussing on general amenity and improvements to the public realm would contribute to developing a sense of place and identity within the individual communities of South Hedland.

It is also proposed to improve access to recreation and open space through the following:

- implementation of the South Hedland Integrated Sporting Complex Master Plan;
- implementation of the JD Hardie Master Plan; and
- ensure adequate provision of public open space in future structure planning and subdivision.

### Precinct Objectives

- Provide for a permanent residential population within the catchment area of the South Hedland City Centre.
- Provide for diversity in housing choice and ‘affordable’ housing.
- Provide for higher density residential development in closer proximity to the South Hedland City Centre, with more traditional home sites outside the walkable catchment.
- Progressively improve the provision of open space within South Hedland.
- Enhance the visual amenity of entry roads into South Hedland.
- Provide for district and regional recreation facilities.

### Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• Provide a logical and efficient staged approach to the release of land for residential purposes.</li> </ul>	<ul style="list-style-type: none"> <li>• Promote the subdivision and development of the areas identified as ‘Priority Urban Land’ ahead of other areas as denoted on the Strategy Maps;</li> <li>• Allow the progressive implementation of existing Urban Development areas as appropriate;</li> <li>• Not support the further rezoning of rural land for urban purposes.</li> </ul>
<ul style="list-style-type: none"> <li>• Ensure that key infrastructure is protected from the encroachment of sensitive land uses.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain separation of sensitive uses to the following:                             <ul style="list-style-type: none"> <li>o Port Hedland Wastewater Treatment Plant;</li> <li>o Port Hedland Landfill site;</li> <li>o existing mining buffer exclusion area; and</li> <li>o Boodarie Strategic Industry buffer area.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Ensure sufficient land is set aside for recreation and open space.</li> </ul>	<ul style="list-style-type: none"> <li>• Progressively implement the South Hedland Integrated Sporting Precinct Master Plan and JD Hardie Precinct Master Plan.</li> <li>• Implement the recommendations of the Town’s Public Open Space Strategy to ensure sufficient open space is set aside in future structure planning and subdivision within South Hedland.</li> </ul>
<ul style="list-style-type: none"> <li>• Improve the sense of place and amenity within South Hedland.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop a strategy to progressively improve the public realm within South Hedland with a potential focus on the following:                             <ul style="list-style-type: none"> <li>o closure of redundant pedestrian accessways with a view to amalgamating with adjacent land;</li> <li>o enhancements to entry statement roads to each suburb;</li> <li>o enhancements to streets including, street tree planting / theming strategy;</li> <li>o dual naming / signage;</li> <li>o arts and cultural programming to activate the public realm/City Centre;</li> <li>o enhancements to existing parks including installation of additional shade trees to all parks.</li> </ul> </li> </ul>

## South Hedland City Centre

### Precinct Status

**The South Hedland City Centre is established as the primary retail and commercial centre within the Town of Port Hedland.**

The centre is located on the western periphery of South Hedland and lacks a residential catchment to the west. Consequently, the Centre is currently struggling to attract new retail tenants and a significant amount of constructed floorspace remains vacant. There is currently a surplus of retail floorspace which is projected to be extinguished by 2041 with a total additional 8,100sqm of retail floorspace being required.

There is a current undersupply of commercial office space, with many tenants taking up traditional retail floorspace as a consequence.

Development of the centre is guided by the South Hedland Town Centre Structure Plan, adopted by the WAPC in 2014.

A number of hotel/motel developments exist in the centre, with some in care and maintenance due to market conditions.

Activity within the centre is focussed around South Hedland Shopping Centre due to its indoor environment, climatic conditions and combination of large-scale anchor tenants and smaller shops and services as attractors.

The area currently produces an environment prone to anti-social behaviour, negatively impacting the community. There is an opportunity for anti-social behaviour to be diminished by Crime Prevention through Environment Design frameworks.

A number of serviced vacant lots exist surrounding South Hedland Shopping Centre which presents an opportunity for investment in commercial and mixed use development to contribute to the vibrancy of the precinct.

### Strategy Response

In order to recognise the South Hedland centre as the primary activity centre, it is proposed to zone the precinct as 'Centre' to differentiate it from the other commercial zoned centres in the district. Prioritisation for new commercial, retail and civic land use and development should be given to the centre and further investment should be made to improving the public realm to attract private investment.

It will be necessary to undertake a review of the South Hedland Town Centre Structure Plan to ensure that it provides current best practice guidance to future land use and development of the centre with a focus on resolving issues relating to:

- providing an integrated transport network to improve accessibility;
- establishing development requirements to ensure new built form is of a modern and high design standard which provides a visual focal point for South Hedland;
- establishing development standards for the public realm to ensure a clear definition of public spaces which contribute to a sense of place.

### Precinct Objectives

- Reinforce the precinct as the primary activity centre for the Town of Port Hedland.
- Provide an identifiable activity hub within the centre.
- Improve pedestrian and vehicle connectivity between the centre and surrounding urban areas.
- Facilitate residential and mixed use development within the centre.
- Introduce a greater permanent residential population through a variety of medium and higher density housing types.
- Provide high levels of visual amenity and points of interest, including key destinations, landmarks and gateways.

## Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• Improve the function of the Centre so that it can fulfil its potential as the primary centre for the region.</li> </ul>	<ul style="list-style-type: none"> <li>• Promote and protect the South Hedland City Centre through a range of strategies and actions including:                             <ul style="list-style-type: none"> <li>o Zoning the centre as 'Centre' within the Town's LPS7;</li> <li>o Prioritising the release and development of new residential land within and in close proximity to the Centre to enhance access to services, activity and promote street surveillance;</li> <li>o Improving the public realm and amenity through access improvements, landscaping, street furniture and public art upgrades;</li> <li>o Improving shading of the public realm (i.e. shade structures over the skate park);</li> <li>o Prioritising the Centre as the basis for employment through the provision of office floorspace;</li> <li>o Locating government services, cultural facilities and civic functions within the Centre;</li> <li>o Encouraging well designed operational workforce accommodation facilities to enhance activation, service provision and business patronage within the Centre;</li> <li>o Providing stronger cycling and pedestrian connections to the Centre; and</li> <li>o Not supporting land uses outside of the Centre of a scale that will be detrimental to the long-term sustainability and viability of the centre.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Provide a coordinated plan for the future progressive development of the centre to ensure issues relating to access, land use and centre performance are comprehensively addressed.</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake a review of the South Hedland Town Centre Structure Plan.</li> </ul>

## Boodarie

### Precinct Status

The Boodarie Precinct is recognised as a priority strategic industrial area by the State and structure planning has been completed to coordinate future development.

The precinct is currently unrated and undeveloped land however does accommodate some infrastructure including FMG mining operations and rail loop, Power Station and cattle stockyards.

### Strategy Response

The precinct is intended to accommodate major downstream processing, port dependent industrial land uses, noxious industry, utilities and general industrial support operations. Major infrastructure and rail corridors connecting Boodarie with the port need to be protected.

Boodarie has also been identified as a potential location for new industrial stockyards.

Coastal hazard risk management and adaptation planning will need to be completed for any new development that is identified as being at risk of coastal processes.

### Precinct Objectives

- Establish synergies and clustering of co-located industries, transport and infrastructure, including port related and upstream industrial activities.
- Give priority to strategic resource processing industrial development comprising downstream processing such as iron ore processing, petro and gas processing, non-ferrous processing, noxious and port dependent processing, and other strategic industries.
- Promote proponent initiated industrial subdivision and development to facilitate strategic downstream resource processing.
- Enable support industries provided they are complementary to and offer good services that directly support and are compatible to downstream resource processing and other strategic industries.
- Facilitate local employment and economic growth opportunities through downstream resource processing and strategic industrial development.
- Limit the proliferation of land uses that are not compatible with strategic industry.

### Strategies and Actions

Strategies	Actions
<ul style="list-style-type: none"> <li>• Provide statutory protection for the Boodarie Strategic Industrial Area.</li> </ul>	<ul style="list-style-type: none"> <li>• Carry over the Boodarie Industrial Buffer Special Control Area into LPS7.</li> <li>• Continue to zone the Boodarie Strategic Industrial Area as 'Strategic Industry' under LPS7.</li> <li>• Limit proliferation of sensitive land uses that may restrict the ability for heavy industry to locate within the area.</li> <li>• Encourage investment in the Boodarie Entrance Road and resolution of land assembly issues to further deconstrain the land and enable proponent led development.</li> <li>• Recognise the Pilbara Port Authority's Boodarie Stockyards Stage 2 development as strategic industry.</li> </ul>

## Our Infrastructure

### Service Infrastructure

#### Water and Wastewater Infrastructure

The Water Corporation manages water under the East Pilbara Water Supply Scheme (EPWSS) from groundwater reserves at Yule and De Grey. This scheme allocation currently produces 13.5 GL/yr with a limit of up to 20.5 GL/yr.

The majority of the district (with the exception of the Redbank and Boodarie) are connected to the Water Corporation's EPWSS for potable supply. The Town utilises both groundwater (abstracted from a local bore) and the Water Corporation's wastewater reuse scheme for the irrigation of some open space areas. Across the district, groundwater is generally used as a supplement to potable scheme water and is anticipated to be used for various non-potable water demands.

Residential areas across the district (with the exception of Redbank and Pippingarra rural residential areas) are connected to the Water Corporation wastewater treatment plant (WWTP) in South Hedland via a reticulated sewer network. Wastewater (including trade waste) from industrial areas (including Port Authority and Finucane Island, Dampier Salt, Wedgefield, Airport and Boodarie precincts) are all serviced by Town approved onsite effluent disposal systems. Similarly, more remote land uses across the LGA are also serviced by Town approved onsite systems.

#### Power Infrastructure

Port Hedland is supplied via a network of 66 kilovolt (kV) overhead distribution lines that extend from substations in Port Hedland, South Hedland and Wedgefield. These substations are fed from the 150MW South Hedland power station located within the Boodarie Strategic Industrial Area. The South Hedland power station was commissioned in 2017 and is contracted to supply power to Horizon Power and Fortescue Metals Group.

Horizon Power also completed the Roy Hill Transmission Project in 2018 to increase the efficiency of the North West Integrated System. Roy Hill Transmission is a 25 MW power station which services the Roy Hill port facility in Port Hedland. The Horizon Power network includes a series of main transmission lines covering almost 5 kilometres and incorporating a connection between the 150 MW South Hedland power station and the Roy Hill power station.

The Port Hedland Alinta Energy Power Station is also located in Port Hedland in two locations (Port Hedland and Boodarie) and generates 210MW (gas and distillate) of power. Alinta Energy also owns and operates three high voltage transmission lines which connect the facilities at Boodarie and Port Hedland as well as the Horizon Power owned North West Interconnected System. This system provides peak power as required by industry.

#### Stormwater Drainage Infrastructure

Throughout most parts of Port Hedland, South Hedland, Wedgefield and Boodarie lots drain generally towards road networks with roads grading to kerb openings and then into a network of open drains. A minority of locations include piped stormwater drainage networks.

Therefore, the most appropriate system for the majority of drainage design solutions is to initially utilise kerbed roadways as the first conveyor of overland flows, with kerb openings directing water into open drains. At locations where roads cross these open drains, the usage of large box culverts and bridge structures is favoured over circular drainage culverts due to the issues with sedimentation and also safety.

**Relevant Objectives:**

- Provide services and infrastructure that meet urban growth requirements

**Strategy Response:**

- Ensure future subdivision and development is serviced by necessary infrastructure

**Actions****Water and Wastewater Infrastructure**

- Require all subdivision and development to be connected to reticulated sewerage, unless an exception is provided for in the *Government Sewerage Policy*.
- Develop and implement a Regional Water Management Strategy to identify water resourcing and supply options.
- The Town to engage with the Water Corporation to identify alternative non-potable water sources for dust suppression purposes at the port.

**Power Infrastructure**

- Identify land required for power generation facilities through future local structure plan and establish appropriate buffers to this infrastructure as required.

**Stormwater Drainage Infrastructure**

- Develop and implement a Regional Water Management Strategy to identify regional strategies to address stormwater drainage and response to inundation.

## Road and Rail

### Road Network

Port Hedland is served by a primary and regional distributor road network that includes North West Coastal Highway, Great Northern Highway and Wilson Street. The North West Coastal Highway links Port Hedland to Geraldton, while also providing access to Karratha, Exmouth and Carnarvon. The Great Northern Highway connects Port Hedland to Broome in the east and Newman and Perth to the south. Access between the localities of Port Hedland and South Hedland is provided via Wilson Street.

Key to understanding requirements to upgrade road infrastructure to support future growth will be the development of a Town wide transport model.

### Restricted Access Network (RAV)

The Town has an extensive Restricted Access Network enabling freight-based economy. Great Northern Highway, Wilson Street, Pippingarra Road, Marble Bar Road and Utah Road form key portions of the RAV 10 network enabling road trains up to 53.5m in length to travel through the Pilbara and access the port facilities. In addition to this, there are several concessional networks approved across this corridor. In this section, Great Northern Highway is also a High-Wide Load corridor.

The Town has commissioned the preparation of a Heavy Vehicle Access Strategy (HVAS) to address current deficiencies in the RAV network and potential funding mechanisms to support future upgrades. The HVAS identifies enhancements to the existing RAV network to allow this network to function as designated, as well as opportunities to expand the existing network.

Other key recommendations of the HVAS include:

- develop a Town traffic monitoring program;
- develop an asset register and asset management plan to document asset condition to inform future maintenance and cost sharing arrangements;
- land use permissibility changes to the established part of Wedgefield to address the deficient RAV network and land use conflicts;
- potential reclassification of the RAV network in the established part of Wedgefield upon land use transition over time to light industry;
- develop and implement an engagement plan with transport industries in Wedgefield;

- develop a funding strategy to upgrade heavy vehicle road network and associated assets;
- evaluate mining tenements and Crown leases and negotiate road maintenance with industry on impacted roads; and
- monitor industry development and consider developing a strategy for application of Smart Technologies in freight.

### Rail

There are four (4) privately operated freight railway lines that connect mining operations to port facilities in Port Hedland. Two railway lines are owned and operated by BHP Billiton: the Goldsworthy Line and the Mount Newman line. The Goldsworthy Line connects Finucane Island to Yarrie (200 kilometres east of Port Hedland) and is 208 kilometres long. The Mount Newman line connects Newman to Nelson Point and is 426 kilometres long. Fortescue Metals Group owns and operates a 280-kilometre railway line which connects their mining operations at Cloud Break to their port facilities at Anderson Point. Roy Hill owns and operates a 344km stretch of standard gauge, single line built to transport iron ore from the Roy Hill mine to the dedicate Roy Hill stockyard area within the Port Hedland port.

In accordance with State Planning Policy 5.4 - Road and rail noise, it is proposed to recognise the 200m trigger distance for these rail corridors on the Strategy Maps whereby any application for planning approval within the identified trigger distance will require an assessment against the policy requirements.

#### Relevant Objectives:

- Provide services and infrastructure that meet urban growth requirements

**Strategy Response: Provide a safe and efficient transport network that caters for the needs of industry and freight**

#### Actions

##### Road Network

- Develop a district wide Traffic Model to inform future upgrade requirements to support urban and industrial growth.
- Ensure future structure planning and subdivision provides for new road networks and upgrades generally in accordance with the requirements of *Liveable Neighbourhoods*.
- Restricted Access Vehicle Network
- Develop and implement the findings and recommendations of a Heavy Vehicle Access Strategy to resolve issues associated with the RAV network.

##### Rail

- Protect established freight rail corridors from encroachment of sensitive land uses in accordance with *State Planning Policy 5.4 - Road and rail noise*.

## Public Transport

The Public Transport Authority (PTA) manages TransRegional, which provides intra town and inter town public bus services in regional Western Australia. There are currently three bus routes that serve the Port Hedland townsite, operated under the ‘TransHedland’ brand by a private contractor.

In addition, the Town is serviced by three inter town public bus routes, operated by private contractors on behalf of TransRegional. The Perth to Broome route makes stops at Port Hedland and South Hedland, as well as Geraldton, Carnarvon, Exmouth and Karratha. There are also two Perth to Port Hedland routes; one operates via Tom Price, with the other via Meekatharra. These routes operate up to three times weekly in each direction.

Past strategies have advocated for the expansion of public transport routes and frequency of services connecting Port Hedland, South Hedland and Wedgefield.

### Relevant Objectives:

- Provide services and infrastructure that meet urban growth requirements

**Strategy Response: Promote the provision of an improved level of public transport services for the district**

### Actions

- Advocate for improved public transport systems with the relevant State government agency.

## Walking and Cycling

Most streets in Port Hedland and South Hedland feature a pedestrian path on one side. Often, existing paths are not continuous, even on the same block. This lack of connection limits permeability of the network.

Port Hedland has previously prepared and endorsed a Trails Master Plan to guide the provision of walking trails as part of a wider strategy to promote the region to tourists.

Formal pedestrian access to the coast is quite limited therefore many informal trails were developed over time.

Port Hedland features modest cycling facilities. Port Hedland does not feature dedicated cycling lanes on any of the roads. Most notable, shared paths are placed along the coastline (along Sutherland Street, Counihan Crescent, POS areas and along key distributor roads in South Hedland (Hamilton Road, Forest Circle etc.)

Proposed shared path connecting South Hedland and Port Hedland along Wallwork Road, Great Northern Highway and Wilson Street is only partially constructed – it currently connects South Hedland to access road to Dampier Salt facilities.

Similar to the pedestrian network – the cycling network generally lacks continuity and permeability. This issue will be addressed through the Town’s preparation of the Pilbara Cycling Strategy 2040, which will guide the provision of new key cycle linkages and infrastructure.

### Relevant Objectives:

- Provide services and infrastructure that meet urban growth requirements

**Strategy Response: Plan for the provision of services and infrastructure to address identified gaps and to meet urban growth requirements**

### Actions

- Progressively implement the Trails Master Plan as funding permits.
- Partner with relevant State and local authorities to fund and improve cycle infrastructure in accordance with the *Pilbara Cycling Strategy 2040*.
- Develop an asset register and progressively complete cycle and pedestrian path projects in accordance with a capital works program.
- Plan for the provision of cycle and pedestrian infrastructure in the preparation of structure plans and applications for subdivision.



# Implementation

The Local Planning Strategy provides the justification for matters that require review under the Local Planning Scheme, and guides decision-making around amendments to the Scheme, structure plans, subdivision applications and development proposals. Its objectives and recommendations are to be used as a planning guide to assist Council and the Western Australian Planning Commission in their respective roles in land use planning.

The following mechanisms will be used to implement the Strategy:

- Review of the Local Planning Scheme and amendments
- Preparation of Local Planning Policies
- Structure Plans
- Local Plans
- Preparation of further targeted strategies
- Advocacy/promotions; and
- Collaboration/partnerships

## Review of the Local Planning Scheme and amendments

The Strategy provides the justification for matters that need to be addressed in the preparation of the Town's Local Planning Scheme No.7. The *Planning and Development (Local Planning Schemes) Regulations 2015* (the Regulations) require local governments to undertake a review of their local planning scheme five years after gazettal. The preparation of Local Planning Scheme No.7 has been based on the model provisions of the Regulations, including the rationalisation of zones, reserves and land use classifications to generally accord with the model provisions.

## Local Planning Policies

Local planning policies are prepared under the Local Planning Scheme. They are a tool to provide a consistent and coordinated approach for decision making on land use and development matters. They provide additional guidance to applicants, planning staff and elected members on the preferred way in which discretion may be exercised under the Local Planning Scheme.

The preparation and review of local planning policies is recommended to ensure consistency with the objectives and direction of the Strategy, the current planning framework and the preparation of Local Planning Scheme No. 7.

## Structure Plans

Structure planning will be required as the basis for coordination of subdivision and development of greenfield sites. These areas are generally designated as 'Urban Investigation Areas' under the Strategy and may also apply to land zoned 'Urban Development', 'Centre' and the various industrial zones under the Local Planning Scheme.

## Local Plans

Local Plans are strategies similar to this one where objectives that fall outside of the scope of land use and planning can be addressed. Examples are the *Arts and Culture Strategy 2019-2022*, the *Community Safety Plan 2019-2022* and the Port Hedland Townsite CHRMAP. These documents go beyond the scope of a planning strategy and cover other social, environmental and infrastructure outcomes.

## Preparation of further targeted strategies

Research usually in the form of further studies, such as the preparation of a Local Housing Strategy and Local Tourism Strategy, are tools that the Town can use to assist in making land use and planning decisions that relate to implementing the Strategy.

## Advocacy / Promotions

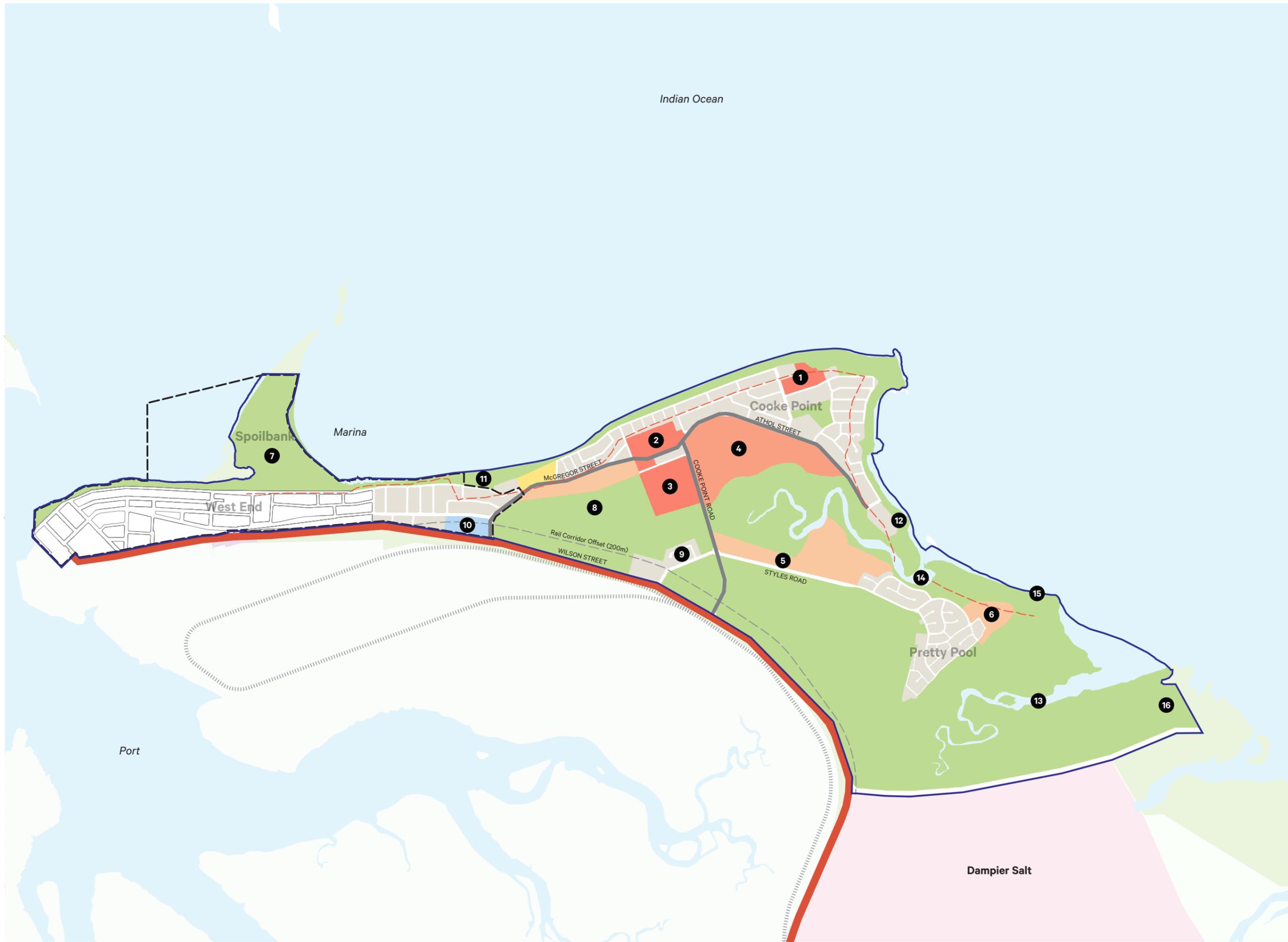
Advocacy is a tool that can be used to campaign for specific land use and planning desired outcomes of the Strategy such as improving public transport provided by State government and education of developers and builders on the need for greater diversity in housing product. Promotions are where the Town actively works to encourage positive change in behaviour and this is often achieved by education, information displays, community events such as *Live It Tell It Do It*, which encourage residents to give feedback on the Town's performance against its Strategic Community Plan. The intent is to get the message and information out to as many interested parties as possible to advocate the outcomes of this Strategy.

## Collaboration / Partnerships

The Town has a vision to be Australia's leading Port Town, growing small to medium enterprises to support industry and community; undertaking lands and infrastructure planning for economic and population growth and diversification; and creating liveable towns through enhanced amenity and cultural activities. Strong and effective partnerships between the Town of Port Hedland, industry, government and its residents are key to the achievement of this vision.

The Town cannot tackle major issues on its own. It is widely accepted by all governing institutions that collaborative, integrated approaches are more successful as there are often cross-sectorial issues involved, or funding models at local and State government scale. An example of such collaboration is the Town's collaboration with the State government to deliver the Spoilbank Marina.

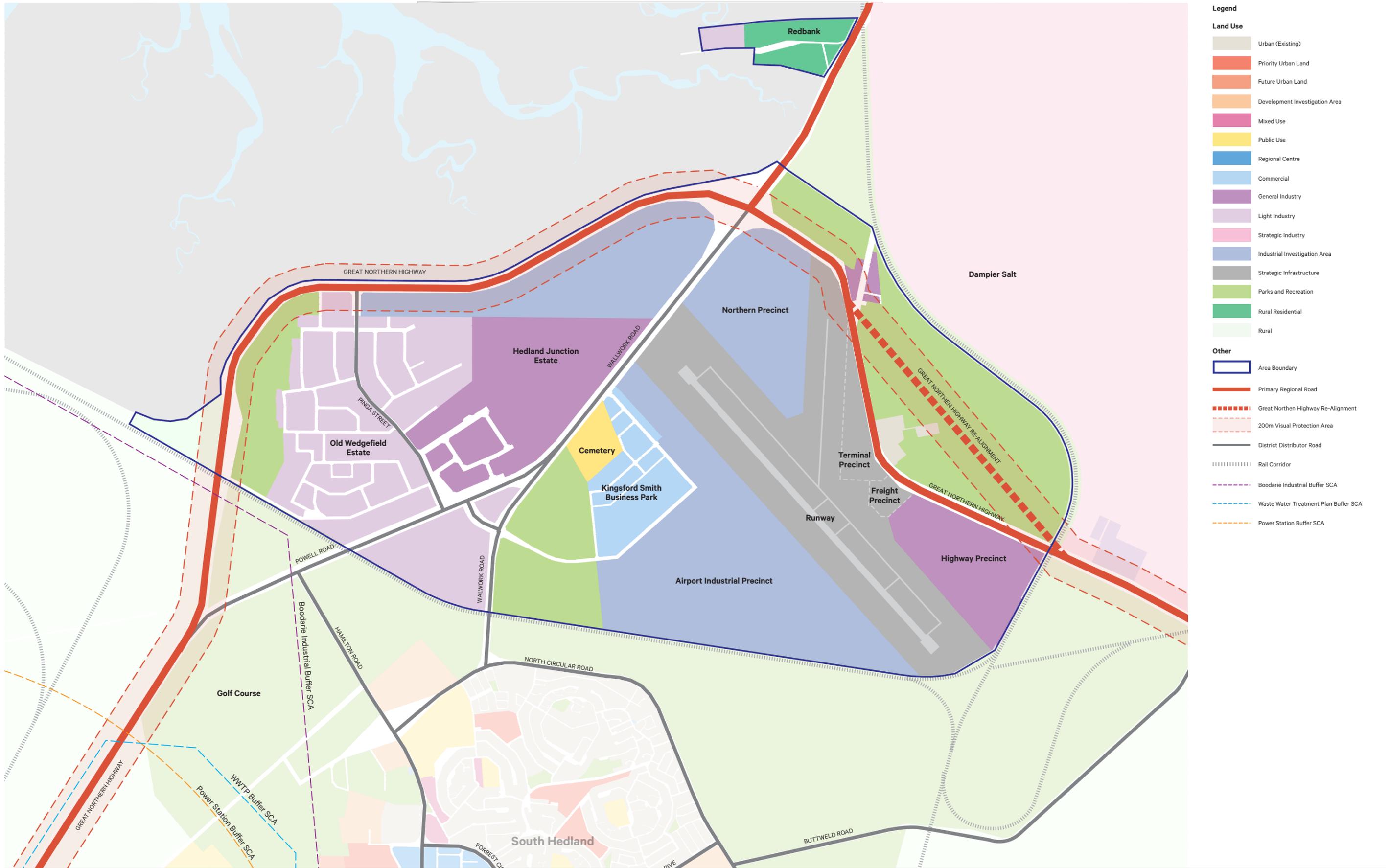
# Strategy Maps



- Legend**
- Land Use**
- Urban (Existing)
  - Priority Urban Land
  - Future Urban Land
  - Development Investigation Area
  - Public Use
  - Commercial
  - Strategic Industry
  - Parks and Recreation
  - Rural
- Other**
- Waterbodies
  - Area Boundary
  - Improvement Plan No. 50 Boundary
  - Primary Regional Road
  - District Distributor Road
  - Rail Corridor
  - Rail Corridor Offset (200m)
  - 100 Year Coastal Erosion Line
- Development Areas**
- 1 Former Recreation and Detention Centre
  - 2 Telstra Tower Site
  - 3 Former Wastewater Treatment Plant Site
  - 4 Athol Street Development Investigation Area
  - 5 The Stables Precinct Development Investigation Area
  - 6 Pretty Pool Stage 3a Development Investigation Area
- Community Infrastructure**
- 7 Spoilbank Marina
  - 8 McGregor Street Sporting Precinct
  - 9 Tjalka Boorda Tourism Opportunity
- Activity Centres**
- 10 The Boulevard Neighbourhood Centre
- Environmental Assets**
- 11 Cemetery Beach Turtle Nesting Area
  - 12 Cooke Point Beach Turtle Nesting Area
  - 13 Four Mile Creek
  - 14 Pretty Pool Creek
  - 15 Pretty Pool Beach Turtle Nesting Area
  - 16 Six Mile Reserve

# Map 01 - Port Hedland Townsite

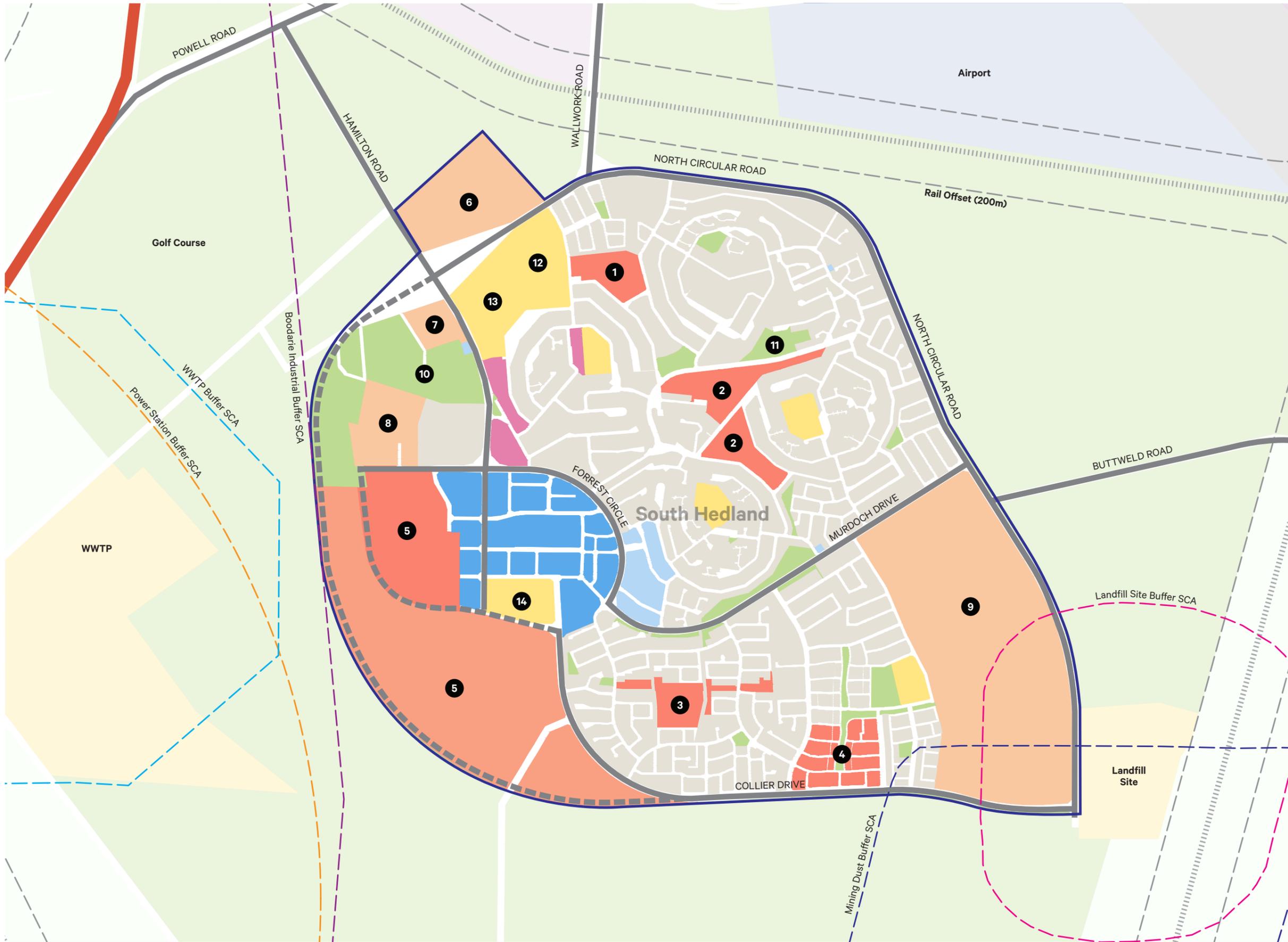
Town of Port Hedland Local Planning Strategy DRAFT



- Legend**
- Land Use**
- Urban (Existing)
  - Priority Urban Land
  - Future Urban Land
  - Development Investigation Area
  - Mixed Use
  - Public Use
  - Regional Centre
  - Commercial
  - General Industry
  - Light Industry
  - Strategic Industry
  - Industrial Investigation Area
  - Strategic Infrastructure
  - Parks and Recreation
  - Rural Residential
  - Rural
- Other**
- Area Boundary
  - Primary Regional Road
  - Great Northern Highway Re-Alignment
  - 200m Visual Protection Area
  - District Distributor Road
  - Rail Corridor
  - Boodarie Industrial Buffer SCA
  - Waste Water Treatment Plan Buffer SCA
  - Power Station Buffer SCA

# Map 02 - Airport, Wedgefield and Redbank

Town of Port Hedland Local Planning Strategy DRAFT

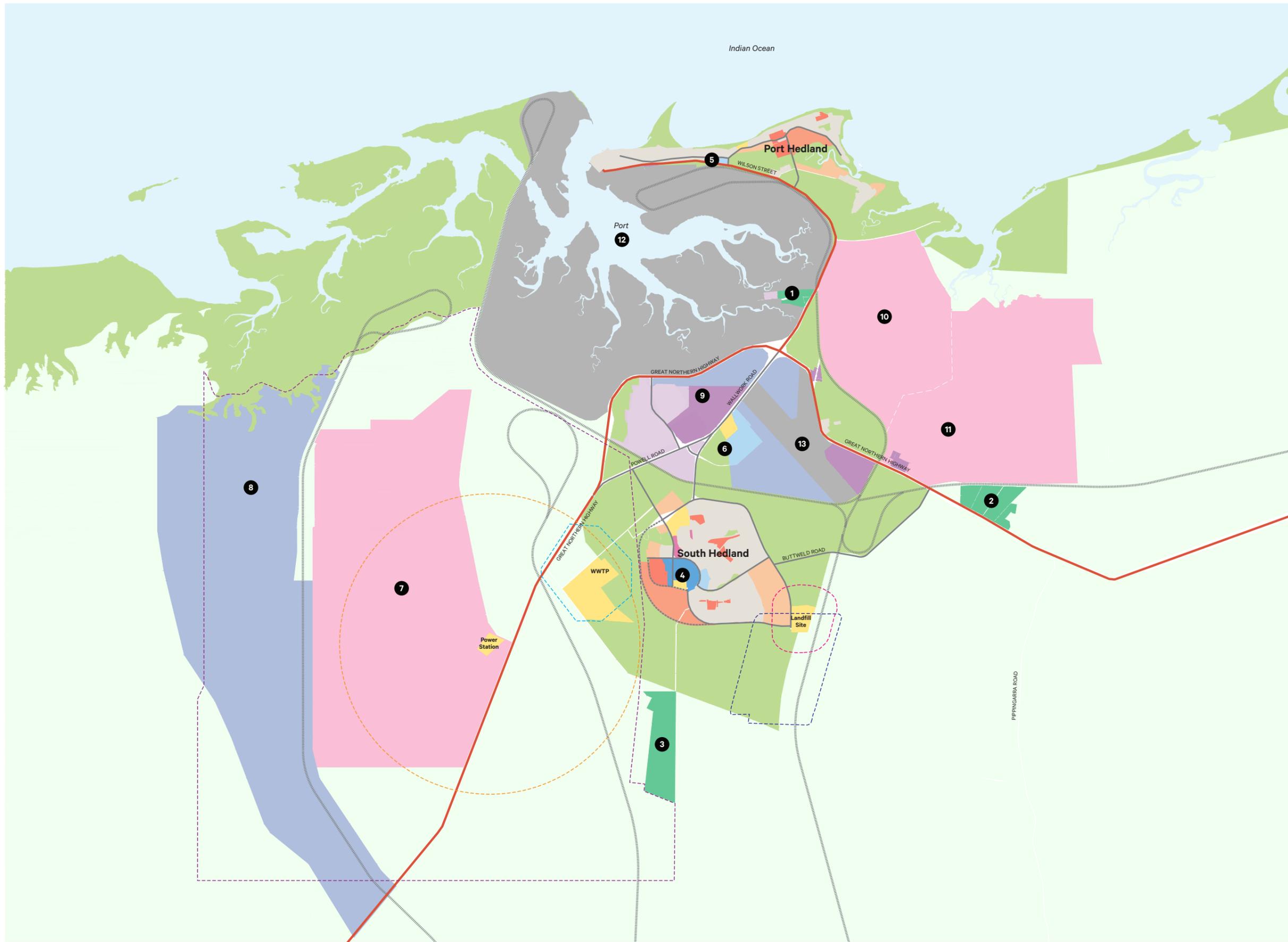


- Legend**
- Land Use**
- Urban (Existing)
  - Priority Urban Land
  - Future Urban Land
  - Development Investigation Area
  - Mixed Use
  - Public Use
  - City Centre
  - Commercial
  - General Industry
  - Industry Investigation Area
  - Strategic Infrastructure
  - Parks and Recreation
  - Rural
- Other**
- Area Boundary
  - Primary Regional Road
  - District Distributor Road
  - District Distributor Road (Proposed)
  - Rail Corridor
  - Rail Corridor Offset (200m)
  - Landfill Site Buffer SCA
  - Boodarie Industrial Buffer SCA
  - Waste Water Treatment Plan Buffer SCA
  - Power Station Buffer SCA
  - Mining Dust Buffer SCA
- Development Areas**
- 1 Pundulmurra Structure Plan Area
  - 2 Trumpet Way Structure Plan Area
  - 3 Koombana Structure Plan Area
  - 4 Osprey Structure Plan Area
  - 5 Western Edge Structure Plan Area
  - 6 Hamilton Road Structure Plan Area
  - 7 Club Hamilton Structure Plan Area
  - 8 Forrest Circle Structure Plan Area
  - 9 Osprey Rural Structure Plan Area
- Community Infrastructure**
- 10 South Hedland Integrated Sporting Complex
  - 11 JD Hardie Youth Centre
  - 12 North West TAFE
  - 13 South Hedland Senior High School
  - 14 South Hedland Health Campus

# Map 03 - South Hedland

Town of Port Hedland Local Planning Strategy DRAFT





**Legend**

**Land Use**

- Urban (Existing)
- Priority Urban Land
- Future Urban Land
- Development Investigation Area
- Mixed Use
- Public Use
- City Centre
- Commercial
- Light Industry
- General Industry
- Strategic Industry
- Industry Investigation Area
- Strategic Infrastructure
- Parks and Recreation
- Rural Residential
- Rural

**Other**

- Primary Regional Road
- District Distributor Road
- District Distributor Road (Proposed)
- Rail Corridor
- Landfill Site Buffer SCA
- Boodarie Industrial Buffer SCA
- Waste Water Treatment Plan Buffer SCA
- Power Station Buffer SCA
- Mining Dust Buffer SCA

**Rural Residential**

- 1 Redbank Estate
- 2 12 Mile Estate
- 3 Bosna and Quartz Estates

**Activity Centres**

- 4 South Hedland City Centre
- 5 The Boulevard Neighbourhood Centre
- 6 Kingsford Smith Business Park Specialised Centre

**Industrial Precincts**

- 7 Boodarie Strategic Industry
- 8 Boodarie Stockyards (Stage 2)
- 9 Wedgefield Estate
- 10 Dampier Salt
- 11 Explosives Reserve

**Strategic Infrastructure**

- 12 Port Hedland Port
- 13 Port Hedland International Airport

# Map 04 - Townsite Surrounds

Town of Port Hedland Local Planning Strategy DRAFT



# Draft Local Planning Strategy

Part 2 – March 2020



Town of  
**Port Hedland**



The Town of Port Hedland would like to acknowledge the Kariyarra, Ngarla and Nyamal people as the traditional Custodians of the Port Hedland lands. We recognise their strength and resilience and pay our respects to their Elders past and present.

We extend that respect to all Aboriginal & Torres Strait Islander people of the local community and recognise their rich cultures and their continuing connection to land and waters.

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Document ID: /Volumes/Graphics/2019/19-112 Port Hedland RFQ Preperation - LPS and LPS Review/LPS/

Issue	Date	Status	Prepared by	Approved by
1	26.03.20	Draft	Alison Healey	Mike Davis

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# Acronyms

AHD	Australian Height Datum
ATSI	Aboriginal and Torres Strait Islander
BOM	Bureau of Meteorology
BRM	Basic Raw Materials
CALD	Culturally and Linguistically Diverse
CCNA	Community Consultation and Needs Analysis
CHRMAP	Coastal Hazard Risk Management and Adaptation Plan
CPTED	Crime Prevention through Environmental Design
DFES	Department of Fire and Emergency Services
DPLH	Department of Planning, Lands and Heritage
DSR	Department of Sports and Recreation
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
ES	Extraction Sites
FIFO	Fly-in, Fly-out
Ha	Hectare
IP50	Improvement Plan No. 50
LGA	Local Government Authority
LIA	Light Industrial Area
LPS	Local Planning Strategy
TPS5	Town Planning Scheme No. 5

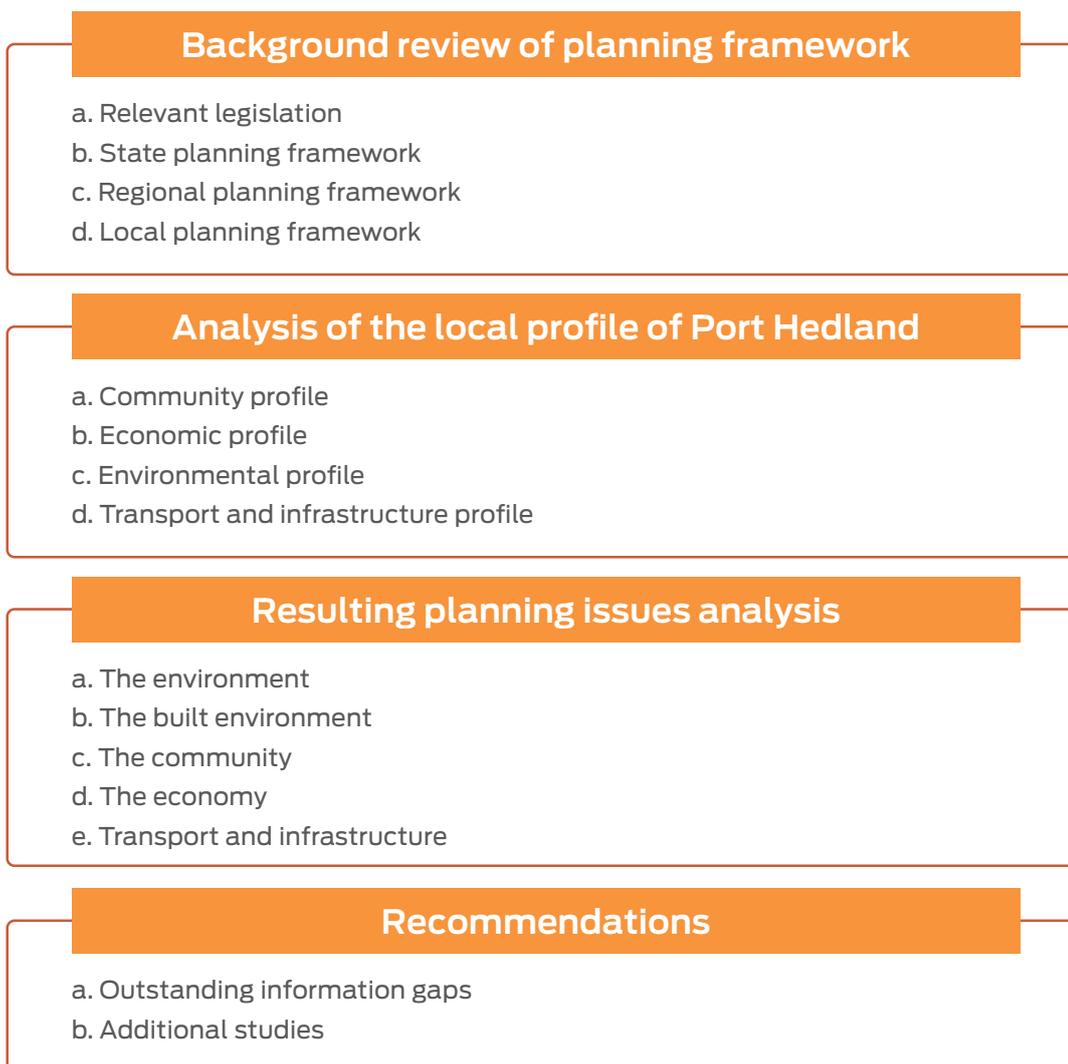
LPS7	Local Planning Scheme No. 7
LUMP	Port Hedland Land Use Master Plan
MRWA	Main Roads Western Australia
NBN	National Broadband Network
OBRM	Office of Bushfire Risk Management
PCS	Pilbara Conservation Strategy
PDC	Pilbara Development Commission
PDWSA	Public Drinking Water Source Area
PHIA	Port Hedland International Airport
PHIC	Port Hedland Industries Council
POS	Public Open Space
PPA	Pilbara Ports Authority
PPIF	Pilbara Planning and Infrastructure Framework
PTA	Public Transport Authority
RAV	Restricted Access Vehicle
SCP	Strategic Community Plan
SGS	Significant Geological Supplies
SHISC	South Hedland Integrated Sports Complex
SPP	State Planning Policy
SPS	State Planning Strategy 2050
SRP	Strategic Resource Plan
TI	Telecommunications Infrastructure
TO	Traditional Owners
Town	Town of Port Hedland
TPDP	Tourism Product Development Plan
WAPC	Western Australian Planning Commission
WSUD	Water Sensitive Urban Design
WWTP	Waste-Water Treatment Plant

# 1. Introduction

This report has been prepared for the Town of Port Hedland (Town or ToPH) to provide the background analysis of relevant reports and information to inform a review of the Town’s existing local planning strategy (Growth Plan) and Local Planning Scheme No. 5 (TPS5). This report has been informed by work contributed by the following consultant team.

Consultant Team	
<b>element</b>	Strategic and statutory planning, heritage, engagement
AEC	Economic and population and community profiling
Emerge Associates	Strategic environmental and water
KCTT	Traffic and transport and civil engineering

The report includes the following components:



## 1.1 Study Area

This background review and analysis relates to land contained within the Town municipal boundary but excludes the land subject to Improvement Plan No. 50, an area which is identified later in this report.

*Refer to Figure 1 – Town of Port Hedland Municipal Boundary*

## 1.2 Background

### 1.2.1 Context

The Town is a local government area located in the Pilbara region of Western Australia, approximately 1,800 kilometres north of Perth. It is home to over 14,000 people and primarily encompasses two urban residential and business centres, Port Hedland and South Hedland; the Aboriginal communities of Jinparinya, Marta Marta, Punju Njamal, Tkalka Boorda, Tjalka Wara and Yandeyarra; and the industrial areas of Wedgefield and Boodarie.

Port Hedland has been a significant community hub for the Pilbara since the late 1800s and continues to be a vital part of the region for culture, economy, sport, business and regional services. The local government area is home to unique desert landscapes, a tropical savannah climate, beautiful waterfronts located on the headland and provides access to internationally renowned nature reserves which continue to attract both residents and visitors.

### 1.2.2 Review of past population projections

At the height of the mining boom in 2012, a growth plan was prepared; Pilbara's Port City Growth Plan and Implementation Plan (Growth Plan). The Growth Plan was adopted by the Western Australian Planning Commission (WAPC) as a local planning strategy (LPS) for the Town and established the principal strategic direction for any subsequent planning policies. With development aspirations based on a rapid city growth scenario, the projected regional population under that plan was 50,000 people by 2035.

As part of the review of the Growth Plan, the Town has incorporated population scenario modelling to achieve a balance between a conservative versus aspirational population

forecast. The intention behind this revised approach is to ensure a balanced view of population growth to guide future growth and development within the Town. This approach will allow the Town to prioritise land to accommodate future population growth and services based on historical growth rates (baseline or conservative growth scenario), while also ensuring that the Strategy identifies sufficient medium to long term land for urban purposes should growth rates exceed the conservative population growth scenario (aspirational or high growth scenario).

The two population growth scenarios that inform the preparation of this Strategy are:

1. A conservative forecast of 18,500 by 2041, based on modelling prepared by consultants RFF (2020) which applies an average historical annual growth rate of 0.9% per annum focused on average growth between 2001 and 2018.
2. An aspirational forecast of 27,085 people within the Town by 2041, based on forecast.id population forecasts which take into account a range of factors such as demographic changes (births, deaths, migration) and accounts for urban development drivers (residential development opportunities, land availability, diversity of housing stock, regional competition, vacancy rates).

The two population scenarios above can be compared to the Department of Planning, Lands and Heritage's (DPLH) population forecasting *WA Tomorrow*, which is based on demographic trends. The 2019 WA Tomorrow forecasting identifies a population of between 14,380 (Band A – low change rate) and 17,715 (Band E – highest change rate) people by 2031. Band C represents the median forecast which identifies a total of 16,020 people for Port Hedland by 2031. These numbers are generally in the lower range of the two population scenarios adopted to inform this Strategy. However, DPLH acknowledge limitations with the forecasting in *WA Tomorrow* and cautions applying the forecasting for strategies which seek to influence existing trends to achieve a more desirable future outcome.

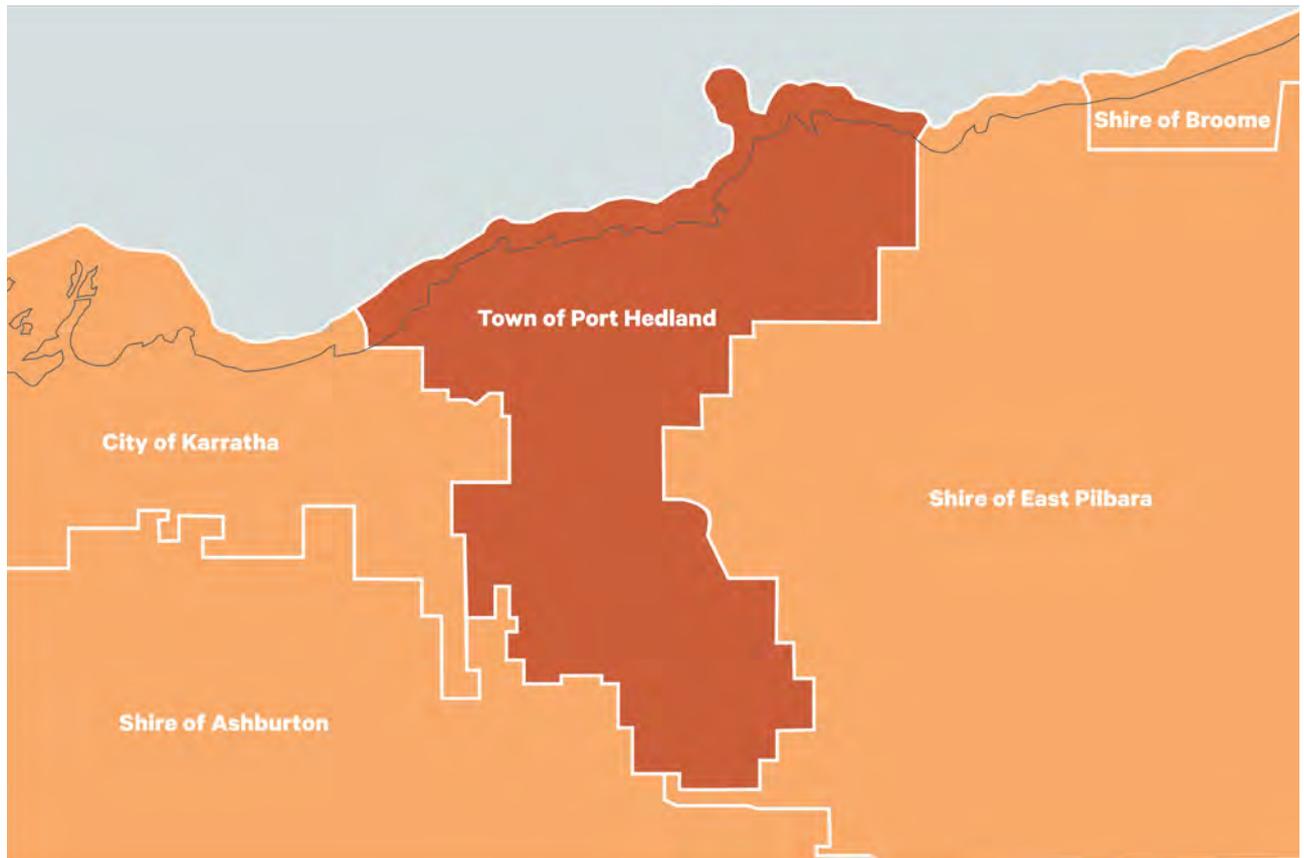


Figure 1 – Town of Port Hedland Municipal Boundary

### 1.2.3 Overview of preliminary issues and gaps

The following provides an overview of the primary considerations, issues and gaps, which have emerged as part of the preparation of the Strategic Community Plan and Corporate Business Plan, early engagement, and literature review, which need to be considered in the preparation of the new Scheme:

- Improvement Plan No. 50, prepared by the WAPC for the West End Precinct following consideration of the Dust Management Taskforce recommendations; Improvement Plan No. 50 will provide the statutory basis for the preparation and implementation of a separate improvement scheme over the West End Precinct. The West End Improvement Scheme will not be preceded by a planning strategy so some strategic planning matters may need to be addressed by the Town's LPS, for the West End precinct.
- The need to prioritise land to accommodate future population growth and development, based on availability of services, proximity to existing developed land and consideration of constraints.
- Challenges associated with non-residential workforce accommodation (predominantly FIFO workers), how this accommodation can be leveraged to improve social and economic sustainability for the Town, and what normalisation of this type of accommodation may look like within the Town in the future.
- Regional, secondary and tertiary education issues within the Town and the North West generally; improved secondary educational opportunities within the Town are vital to retaining and attracting families over the longer term.
- Complex issues facing Wedgefield; land use planning conflicts associated with caretaker accommodation, worker accommodation, industrial land uses and heavy vehicles, all seeking to collocate and utilise the area.
- Complexities associated with the provision of industrial lands within the Town including the Boodarie Strategic Industrial Area that may not necessarily support the

many smaller and medium scale service commercial and industrial uses present within the Town.

- Coastal planning issues and the need to implement associated planning adaptation measures into LPS7 provisions.
- Future plans and diversification opportunities for stakeholders under pastoral leases. Future plans may consider tourism opportunities, water management constraints, information to inform an economic development strategy (EDS), regional water management strategy (RWMS) and LPS generally.
- The need to incorporate Yandeyarra Reserve into LPS7 and allocate appropriate zonings/reservations given that it is currently unzoned land within the current TPS5.

This report verifies and builds on the above identified issues.

## 2. Statutory Context

### 2.1 Planning and Development Act 2005

Part 5 of the *Planning and Development Act 2005* (the Act) establishes the power in which a local government can prepare a local planning scheme. The processes set out under this section of the Act will be relevant relating to the preparation of a new Local Planning Scheme No. 7 (LPS7) for the Port Hedland local government area.

Part 8 of the Act establishes the power in which an Improvement Plan and Improvement Scheme can be prepared. This is relevant to the separate Improvement Plan and Scheme process being undertaken by the WAPC for the West End precinct in Port Hedland.

### 2.2 Planning and Development (Local Planning Schemes) Regulations 2015

The *Planning and Development (Local Planning Schemes) Regulations 2015* (the Regulations) requires the Town to prepare a LPS for the local planning scheme area. It also establishes the processes and requirements that a local government must follow in preparing a new LPS and local planning scheme for the district.

Regulation 11 states that a LPS must:

- (a) set out the long-term planning directions for the local government; and
- (b) apply any State or regional planning policy that is relevant to the strategy; and
- (c) provide the rationale for any zoning or classification of land under the local planning scheme.

Part 3 of the Regulations sets out the process for preparing a LPS and Part 4, the process for preparing a local planning scheme.

Schedule 1 of the Regulations sets out the model provisions that all local planning schemes should follow to ensure general consistency and format of local planning schemes throughout Western Australia.

Schedule 2 of the Regulations establishes mandatory deemed provisions that are automatically applicable to land use and development throughout Western Australia.

### 2.3 Mining Act 1978

Section 120 of the *Mining Act 1978* states that local planning schemes and local laws are to be considered but do not derogate from decisions made pursuant to the *Mining Act 1978*. Therefore, planning schemes cannot prohibit or affect the granting of mining tenements (mining leases and exploration licenses) or carrying out of any mining operation authorised by the *Mining Act 1978*. Recent State law has resolved that mining operations include accommodation camps and other associated infrastructure proposed to be located within mining tenements affecting Crown land.

While the Town of Port Hedland local planning scheme may have limited application to the control of land use in relation to mining activities undertaken on Crown land the subject of a State Agreement or mining tenement the inclusion of the following clause within the future local planning scheme has the potential to trigger consultation between the Ministers for Mining and Planning where it is considered a proposal for workforce accommodation is contrary to the provisions of the local planning scheme:

*"In considering proposals for workforce accommodation on mining tenements, Council may exercise its discretion to inform the Minister for Mines and the Minister for Planning in writing that the granting of a mining lease or general purpose lease is contrary to the provisions of the Scheme."*

It is recommended that a clause to the above effect and consideration as to the use permissibility of Workforce Accommodation (i.e. 'X' use within the Rural zone) be included in the Town's new local planning scheme to provide some ability for the Council to require the Minister of Planning and Mining to give further consideration to a proposal for Workforce Accommodation outside of established urban areas within the district.

It is also noted that the definition of 'minerals' as contained within section 8 of the *Mining Act 1978* specifically excludes the extraction of basic raw materials on private property and therefore extractive industries are not subject to the exemptions afforded under the Act.

## 2.4 Port Authorities Act 1999

The *Port Authorities Act 1999* (PAA) establishes powers and provisions in relation to Western Australian ports and also sets out provisions relating to the establishment of port authorities, including the Pilbara Ports Authority (PPA). Clause 29A of the PAA states that a '*port authority does not have to obtain approval under the Planning and Development Act 2005 section 136 in order to grant a lease or licence in respect of port land.*'

Clause 35(8) states that with respect to port works and port facilities, a port authority is a local authority within the meaning of the *Public Works Act 1902*. This means that the PPA is exempt from the requirement to obtain development approval under the Town's local planning scheme for port works and port facilities pursuant to section 6 of the *Planning and Development Act 2005*. This exemption extends to a lessee or tenant of a port authority and a person acting on behalf of a port authority in accordance with Clause 38(1) of the PPA.

Clause 38(6) and (7) of the PPA deals with circumstances where there is a dispute between a port authority and a local government with respect to a planning matter relating to port works or port facilities. In these circumstances of dispute, the parties to the dispute are to refer the matter to the Minister for Ports. The Minister may, after consulting the Minister for Planning, make a decision on the dispute and that decision will be final and binding on the parties.

## 2.5 Native Title

The *Native Title Act 1993* was enacted as a result of the decision made by the High Court of Australia in *Mabo v Queensland (No. 2)* 1992. The Act establishes legislation to formally recognise Aboriginal rights and interests to their land that comes from their traditional laws and customs.

The National Native Title Tribunal governs decisions in relation to Native Title.

The Kariyarra Native Title Claim (WCD2018/015) was determined in the Federal court on 13 December 2018 whereby it was determined that Native title exists in parts of the determination area covering 17,354.2775 km<sup>2</sup>. The Native Title includes exclusive and non-exclusive rights over parts of the claim area which covers a majority of the Port Hedland local government boundary area.

In Port Hedland, Native Title negotiations between the Yamatji Marlpa Aboriginal Corporation and the State Government are also being progressed.

The following schedule documents the Native Title determinations that exist within the Port Hedland district.

Short name	Case name	Legal process	Determination date	Outcome
<b>Nyamal People #1</b>	Allen on behalf of the Nyamal People #1 v State of Western Australia	Consent	24/09/2019	Native title exists in parts of the determination area
<b>Nyamal People #10</b>	Eaton on behalf of the Nyamal People #10 v State of Western Australia	Consent	24/09/2019	Native title exists in parts of the determination area
<b>Kariyarra</b>	Gordon (on behalf of the Kariyarra Native Title Claim Group) v State of Western Australia	Consent	13/12/2018	Native title exists in parts of the determination area
<b>Yindjibarndi #1</b>	Warrie (formerly TJ) (on behalf of the Yindjibarndi People) v State of Western Australia (No 2)	Litigated	13/11/2017	Native title exists in the entire determination area
<b>Banjima People</b>	Banjima People v State of Western Australia & Ors	Litigated	11/03/2014	Native title exists in parts of the determination area
<b>Ngarla Overlap Proceeding</b>	AB (deceased) & Ors on behalf of the Ngarla People v State of Western Australia & Ors	Litigated	19/02/2013	Native title exists in the entire determination area
<b>Ngarla People (Mount Goldsworthy Lease Proceeding)</b>	Brown (on behalf of the Ngarla People v State of Western Australia (No. 3)	Litigated	06/08/2010	Native title exists in parts of the determination area
<b>Ngarla and Ngarla #2 (Determination Area A)</b>	Brown (on behalf of the Ngarla People) v State of Western Australia	Consent	30/05/2007	Native title exists in parts of the determination area
<b>Ngarluma/ Yindjibarndi</b>	Daniel v State of Western Australia	Litigated	02/05/2005	Native title exists in parts of the determination area

It is recommended that a map of the Native Title claims applicable to the Port Hedland district be included in the Town's new LPS.

## 2.6 Aboriginal Heritage Act 1972

The *Aboriginal Heritage Act 1972* was introduced to protect Aboriginal heritage and provide formal recognition of Aboriginal peoples' strong relationship to the land. The Act provides automatic protection for all places and objects in Western Australia that are important to Aboriginal people because of connections to their culture. These are referred to as 'Aboriginal sites'.

The Department of Aboriginal Affairs maintains a Register of Aboriginal Sites as a record of places and objects of significance to which the requirements of the Act apply.

There is a total of 904 registered Aboriginal heritage sites within the Town of Port Hedland at the time of writing this report.

Under the Act it is an offence for anyone to excavate, damage, destroy, conceal or in any way alter an Aboriginal site without the Minister for Aboriginal Affairs' permission.

The requirements of the Act relate to any excavation works and therefore will be applicable to any subdivision or development within the District.

It is noted that the *Aboriginal Heritage Act 1972* is currently subject to review by the State Government and involves a consultation process.

## 2.7 Land Administration Act 1997

Part 7 of the *Land Administration Act 1997* (LAA) deals with pastoral leases. The term of a pastoral lease may not exceed 50 years. Pastoral leases are administered by the DPLH and are applicable to grazing activities on Crown land.

Section 104 of the LAA states that Aboriginal persons may at all times enter upon any unenclosed and unimproved parts of land under a pastoral lease.

Generally, a pastoral lease may not be used for another use other than pastoral activities unless approval has been granted by the Pastoral Lands Board. Pursuant to section 121 of the LAA, the Board may issue a permit for a pastoral lessee to use specified land for a pastoral-based tourist activity.

## 2.7.1 Local Government approval requirements

The Pastoral Lands Board is the authority responsible for issuing permits for pastoral operations and therefore pastoral land use generally does not require the additional development approval of the local government. However, local government approval may be required where a permit application involves:

- Building construction or addition to an existing building;
- Creation of a new supplementary business (i.e. tourism);
- Preparation of food for the public (local government health approval); and
- Creation of additional waste (local government health approval).

The granting of Crown leases by the former Department of Lands in areas such as Bell Street and Pippingarra has led to the decentralisation of industrial land beyond the intended focus area of Wedgefield. No local government approvals were granted in relation to the industrial use of these Crown Lease areas and consideration should be given to binding the Crown to consider the land use permissibility under the Town's local planning scheme in granting a Crown lease, similar to the avenue available to local government under Section 120 of the *Mining Act 1978*. Investigation should be undertaken to include a provision or note in the Town's local planning scheme to address this matter.

### Pastoral Lands Reform

The State government has recently announced a draft Pastoral Lands Reform package and will conduct consultations with the pastoral industry before it is finalised. The pastoral lands reform process aims to:

- encourage good land management;
- provide clear standards for land condition;
- improve land monitoring, compliance and support;
- support pastoralists to demonstrate best-practice land management;
- reward good practice; and
- improve land administration.

Over the next three years, as part of the reform package, the State government will:

- develop regional land condition standards, good pastoral land management guidelines and policies;
- design a risk-based pastoral land condition monitoring and compliance system;
- work with industry to co-design and define best practice for business and land management; and
- identify long-term resourcing requirements.

## 2.8 Rights in Water and Irrigation Act 1914

In proclaimed areas under the *Rights in Water and Irrigation Act 1914* (RIWI Act) it is illegal to take water from a watercourse or groundwater aquifer without a licence. The Department of Water and Environmental Regulation (DWER) is the responsible authority that issues permits to monitor and protect the State's water resources, and the Department promotes the sustainable and efficient use of water.

RIWI licensing is active in all proclaimed areas (groundwater and surface water areas) and for all artesian groundwater wells throughout the State. Applications for water licences are made through the DWER's regional office.

Water licencing will be addressed in further detail as part of the RWMS that will inform the preparation of the new LPS.

## 2.9 Improvement Plan No. 50 – Port Hedland West End

Improvement Plan No. 50: Port Hedland West End was introduced by the State government and gazetted in July 2019 to advance the planning, use and development of land within the West End Precinct, which generally comprises the land west of McGregor Street and Lukis Street in Port Hedland.

The key objective of IP50 is to 'guide the implementation of the State Government's response to the *Port Hedland Dust Management Taskforce Report to Government (2016)*' and it establishes a statutory framework in which an improvement scheme can be prepared and implemented over the precinct.

The WAPC has recently resolved to prepare an improvement scheme over land subject to Improvement Plan No. 50: Port Hedland West End. The proposed improvement scheme will be administered by the WAPC with a key objective of advancing the planning, development and use of land in the West End of Port Hedland. The preparation of the improvement scheme is one of the recommendations of the State Government's response to the Port Hedland Dust Management Taskforce Report to Government. If finalised, the improvement scheme will replace the existing land use planning controls over the area, currently administered by the Town of Port Hedland Town Planning Scheme No. 5. The improvement scheme documentation will be prepared by the DPLH on behalf of the WAPC. Improvement Plan No. 50: Port Hedland West End area is provided at Figure 2.

*Refer to Figure 2 – Improvement Plan No. 50: Port Hedland West End area*

It is anticipated that the gazetted Improvement Plan 50 area will be excised out of the Town's new local planning scheme and this excised area will be delineated on the scheme maps with a note to refer to the separate Improvement Scheme area.



**Improvement Plan No. 50 Port Hedland West End**

Figure 2 – Improvement Plan No. 50: Port Hedland West End area (Source: WAPC, 2019)

## 2.10 Draft West End Improvement Scheme

At the time of writing this report, the State government via DPLHis in the process of preparing and adopting for advertising, the West End Improvement Scheme. The West End Improvement Scheme, once gazetted, will be the primary planning instrument to guide land use and development within the West End of the Port Hedland townsite.

## 2.11 State Agreement legislation

State Agreements are used to secure major resource and infrastructure projects where the investment is considered significant or of strategic importance to Western Australia. They are legislatively approved contracts between the Western Australian Government and project proponents and are commonplace within the Town, allowing the development of railways, ports, mining infrastructure and ancillary buildings and secure long-term tenure where existing law is absent or inappropriate.

State Agreements have supported the region and State’s continued economic growth by facilitating substantial investment in the resources sector. However, it is recognised that contemporary planning is giving greater attention to local community impacts and needs, rather than simply providing controls for on-site operations for State return. State Agreements have the potential to require project proponents to procure local goods, services and workforces, where it is reasonable and economically practical to do so, which has recently been observed as part of the Roy Hill railway infrastructure agreement.

# 3. State Planning Context

## 3.1 State Planning Strategy 2050

The State Planning Strategy 2050 (SPS) is the lead strategic planning document for the State and provides overarching strategic direction to integrate and coordinate land use planning across the State. The SPS was published by the WAPC in 2014 and has a particular focus on managing population and economic growth across the State.

The SPS recognises that there are a range of factors that influence future development of the State, and these include:

- Population
- Workforce
- Global economy
- Diversification
- Urbanisation and regional expansion
- Technology
- Climate Change

The SPS establishes a vision and set of principles to best respond to these drivers for change. The vision is based around sustained growth and prosperity, as set out below:

- By 2050, Western Australia will have a diverse range of interconnected and vibrant local communities and regional centres. The people in these communities will be healthy, resilient, active, prosperous, respectful of cultural difference and participate in the public domain.
- Standards of living will continue to be amongst the highest in the world. Improved connections and smarter technologies will enhance the State's ability to attract global and domestic investment capital, where and when it is most needed.
- A 'can do' attitude will prevail, inspiring new ways of thinking and working, which will deliver optimal outcomes for the economy and communities of Western Australia.

Six interrelated planning principles underpin the SPS which are intended to inform planning at all levels of government within the State:

1. **Community:** Enable diverse, affordable, accessible and safe communities.
2. **Economy:** Facilitate trade, investment, innovation, employment and community betterment.
3. **Environment:** Conserve the State's natural assets through sustainable development.
4. **Infrastructure:** Ensure infrastructure supports development.
5. **Regional Development:** Build the competitive and collaborative advantages of the regions.
6. **Governance:** Build community confidence in development processes and practices.

The SPS also identifies five strategic goals to assist in realising the vision of sustained prosperity for Western Australia:

1. Global competitiveness will be enhanced through continued economic diversification.
2. Strong and resilient regions will be built through economic expansion and inter-regional collaboration.
3. Sustainable communities will be enhanced by investment in infrastructure and social capital.
4. Infrastructure planning and coordination will achieve efficiencies and synergies in pursuit of economic growth.
5. Conservation of the environment will be enhanced by sustainable development and efficient resource use.

The document contains comprehensive strategies around economic development, physical infrastructure, social infrastructure, the environment and security.

The SPS identifies Port Hedland as a Regional Centre to the Pilbara region, and through the Pilbara Cities initiative, the vision established for Port Hedland is to develop into a City where people choose to settle on a permanent basis. It focuses on achieving this through providing the Town with access to high quality education and health services and creating diverse employment and career opportunities.

The document recognises the important role the resources industry and the Pilbara region plays in underpinning the State’s economy and identifies a strategic approach to continue to support the resources industry. This approach includes ongoing government and industry collaboration to ensure delivery of important infrastructure and establishing effective, transparent, timely and efficient administrative and regulatory systems, amongst other measures.

Key to achieving the overarching vision for Port Hedland to be Australia’s leading port town Port City will be the delivery of community infrastructure and services and improvements to the amenity of Hedland generally.

With respect to tourism, the SPS identifies the following priorities relevant to Port Hedland:

- Port Hedland forming part of the west coast cruise shipping route;
- Opportunities for tourism and third-party investment on pastoral land; and
- Regional infrastructure and opportunities, including caravan parks and ecotourism initiatives.

**Key findings and recommendations**

- The revised local planning strategy and new local planning scheme will need to respond to and address the vision, principles and strategies detailed in the SPS. The structure of the revised Local Planning Strategy in particular, will need to address the principles and strategies contained within the SPS.

## 3.2 State Planning Policies

### 3.2.1 State Planning Policy 1 – State Planning Framework Policy

State Planning Policy 1 State Planning Framework Policy (SPP 1) brings together existing State and regional policies, strategies, plans and guidelines within a central State Planning Framework. It sets the context for decision-making on land use and development in Western Australia and identifies six key principles which further define planning’s primary aim of providing for the sustainable use and development of land. While in a broad sense, all six principles are relevant to planning for the Town of Port Hedland (community, economy, environment, infrastructure, regional development and governance), the following points relate to building the competitive and collaborate advantages of the regions, in particular, through planning processes that:

- Facilitate resilient regions by promoting a diverse range of land uses;
- Facilitate achieving optimal opportunities for regional communities by coordinating land use impacts and availability of land in the context of long-term sustainability;
- Allow regional centres to capture investment to create and sustain growth; and
- Enable more remote communities to maintain economic and community development through improved connectivity, services and cultural processes.

**Key findings and recommendations**

- The revised Local Planning Strategy and new Local Planning Scheme No. 7 will both play an important role in guiding land use and development to foster resilient communities within the District.

### 3.2.2 State Planning Policy 2.0 – Environment and Natural Resources Policy

SPP 2.0 defines the principles and considerations that represent good and responsible planning with respect to environment and natural resource issues. It is supplemented by more detailed planning policies on particular natural resources' matters that require additional information and guidance (discussed below).

The objectives of the policy are to:

- Integrate environment and natural resource management with broader land use planning and decision-making;
- Protect, conserve and enhance the natural environment; and
- Promote and assist in the wise and sustainable use and management of natural resources.

Local planning schemes should:

- Consider mechanisms to protect and enhance wetlands of importance, waterways, and coastal environments;
- Encourage urban water management and protect water resource quality;
- Consider flood risk by identifying floodway's and avoid intensifying the development of floodway's;
- Have regard for potential for conflict between sensitive land uses and activities with air emission impacts;
- Consider coast erosion impacts and address through appropriate location of development;
- Recognise contaminated land and facilitate appropriate future use or remediation, while requiring new potentially contaminating activities to demonstrate they will not cause adverse environmental impacts;

- Identify areas affected by acid sulphate soils or other severe land degradation issues and facilitate vegetation retention, replanting and prevention of inappropriate development;
- Consider mechanisms to protect areas of high biodiversity or conservation value and assist the return of these areas to the State in the long term;
- Protect and enhance areas of agricultural significance while facilitating the diversification of compatible land use activities in agricultural areas, based on principles of sustainability; and
- Identify sensitive landscapes and consider the need for a landscape, cultural and visual impact assessment for land uses that may cause significant impact.

#### Key findings and recommendations

- Local Planning Scheme No. 7 will need to respond to a range of environmental and natural resources issues, including but not limited to, the following:
  - o Identify responses to areas at risk of flooding, storm surge inundation and coastal erosion;
  - o Identify public drinking water source (PDWSA) areas;
  - o Identify relevant separation distances between incompatible land use and development;
  - o Protect areas of agricultural significance; and
  - o Protect areas of cultural significance.

### 3.2.3 Draft State Planning Policy 2.4 – Basic Raw Materials Policy

A key objective of SPP 2.4 is to enable the responsible extraction of basic raw materials used in building and development while ensuring the protection of people and the environment.

Local planning strategies and schemes should:

- Identify known Basic Raw Materials (BRM), Significant Geological Supplies (SGS) areas, Extraction Sites (ES) and other significant BRM resources as required;
- Include provisions to identify and protect SGS areas and ES and known buffers or land suitable for providing appropriate separation distances;
- Avoid development of sensitive land uses within the separation distances or determined buffers identified for SGS and/or ES, and plan for compatible land uses;
- Where applicable, allow sequential land use on SGS and ES, including their corresponding separation distances or buffers following extraction to agreed levels, and site remediation;
- Enable the extraction of BRM identified as SGS and ES, subject to analysis of environmental, water resources, infrastructure or planning constraints and subsequent approvals; and
- Permit land uses related to SGS and ES consistent with the model provisions in Schedule 1 of the *Planning and Development (Local Planning Schemes) Regulations 2015*.
- Further guidance and principles are provided on statutory buffers and expansion of extractive industries.
- The draft SPP 2.4 will replace the existing policy dated 2000 which identified priority resource locations and key extraction areas for basic raw materials resources within the Perth Metropolitan area and was limited in its application to the Perth metropolitan area and surrounding rural hinterland. The draft SPP 2.4 applies across Western Australia.

#### Key findings and recommendations

- Strategic planning documents and planning schemes should address land use conflict and not defer its resolution or management to subdivision approval or development assessment stage, where mitigation options are limited, and expectations may have been raised by previous decisions.
- The policy encourages the recognition of SGS and significant BRM resources within the planning framework, and includes provisions for their protection, access and use, including consideration to establishing buffers around extractive industries via Special Control Areas and/or appropriate separation distances to sensitive land uses. This may not be practical to achieve in some areas that are subject to the *Mining Act 1978* i.e. Mining tenements.

### 3.2.4 State Planning Policy 2.5 – Rural Planning Policy

The purpose of this policy is to protect and preserve Western Australia’s rural land assets due to the importance of their economic, natural resource, food production, environmental and landscape values. Ensuring broad compatibility between land uses is essential to delivering this outcome. Planning for rural-residential development should –

- Avoid productive agricultural land, important natural resources, areas of high bush fire risk or environmental sensitivity;
- Avoid future urban areas or areas particularly suitable for urban development in terms of their characteristics and proximity to urban services;
- Give preference to locations near existing settlements with available services and facilities in order to support the local community and avoid locations where services are not available or costly extensions are necessary;
- Minimise potential for conflict with incompatible activities associated with productive rural uses or natural resource management;
- Only include locations which are suitable for this type of development, such as land which is topographically varied, visually attractive and with distinctive environmental attributes or otherwise has potential for lifestyle pursuits; and
- Take a realistic approach by allocating land based on forecast estimates of demand for rural living not on the speculative development of land.
- SPP2.5 is supported by the Rural Planning Guidelines and associated Factsheets. These guidelines explain the intent and interpretation of SPP 2.5 and the associated Development Control Policy 3.4.

#### Key findings and recommendations

- The new Local Planning Scheme No. 7 should:
  - o In rural zones, limit the introduction of land uses that may constrain existing or potential future rural land uses (i.e. industrial uses);
  - o Only categorise land uses as permissible in rural zones if they are consistent with the objectives of this policy and a local planning strategy;
  - o Generally designate animal premises as ‘permitted’ or ‘discretionary’ uses;
  - o Consider whether sensitive land uses in rural zones serve a secondary function to the purpose of the land for primary production, environment and landscape, and whether they should not be ‘permitted’ uses in planning schemes; and
  - o Discourage industrial use of rural-residential land and limit any new rural-residential estates based on historic ‘morphing’ of rural-residential estates into industrial laydown areas.

### 3.2.5 State Planning Policy 2.6 – State Coastal Planning Policy

The purpose of SPP 2.6 is to provide guidance for decision-making within the coastal zone including managing development and land use change; establishment of foreshore reserves; and to protect, conserve and enhance coastal values. Local planning schemes shall identify, and where appropriate include, provisions for the sustainable use of the coast. The objectives of the Policy are to:

- Ensure that development and the location of coastal facilities takes into account coastal processes, landform stability, coastal hazards, climate change and biophysical criteria;
- Ensure the identification of appropriate areas for the sustainable use of the coast for housing, tourism, recreation, ocean access, maritime industry, commercial and other activities;
- Provide for public coastal foreshore reserves and access to them on the coast; and
- Protect, conserve and enhance coastal zone values, particularly in areas of landscape, biodiversity and ecosystem integrity, Indigenous and cultural significance.

It is noted that the Town has recently completed a CHRMAP for the Port Hedland townsite. The adaptation responses identified within this report will need to, in part, be implemented through the Town’s local planning framework.

SPP 2.6 is supported by SPP 2.6 State Coastal Planning Policy Guidelines which provide detailed guidance relating to the application of the policy measures. In addition to this, the DPLH has prepared Coastal Hazard Risk Management and Adaptation Planning guidelines which provide guidance to local governments and proponents on how to prepare Coastal Hazard Risk Management and Adaptation Plans.

#### Key findings and recommendations

- Consider introducing a Special Control Area within Local Planning Scheme No.7 to address areas at risk of coastal storm surge inundation and/or coastal erosion in line with the CHRMAP prepared for the Port Hedland townsite.
- Note that the West End Precinct and East End Urban Village Precinct are at risk of coastal processes and will require adaptation measures to be incorporated into future planning schemes for these areas.
- Incorporate a provision within LSP7 for SPP 2.6 to be read into the scheme.
- Consider identifying coastal nodes within the Local Planning Strategy where it may be appropriate to encourage relocatable tourism infrastructure / camping uses i.e. at Condon in Munda station.

### 3.2.6 State Planning Policy 2.7 - Public Drinking Water Source Policy

SPP 2.7 seeks to ensure the long term protection and management of PDWSA’s from incompatible land uses and pollution in order to maintain the quality of the drinking water. The Policy categorises drink water source areas into three priority hierarchies and provides land use guidance for each.

#### Key findings and recommendations

- Consider the introduction of Special Control Areas where appropriate, to implement measures for the protection of public water supply sources or include a provision that SPP 2.7 is to be read as part of the scheme.
- Land uses and developments in all priority source protection areas that have the potential to impact detrimentally on the quality and quantity of public drinking water supplies should not be permitted unless it can be demonstrated that such impacts can be satisfactorily managed. In determining land uses and development proposals, the Local Government will have due regard to relevant State Government policies and the most recent DWER Land Use Compatibility Tables for Public Drinking Water Source Areas (DoW 2016).

### 3.2.7 State Planning Policy 2.9 – Water Resources Policy

SPP 2.9 provides further guidance on the matters set out under SPP 2.0. The objectives of SPP 2.9 are to:

- Protect, conserve and enhance water resources that are identified as having significant economic, social, cultural and/or environmental values.
- Assist in ensuring the availability of suitable water resources to maintain essential requirements for human and all other biological life with attention to maintaining or improving the quality and quantity of water resources.
- Promote and assist in the management and sustainable use of water resources.

#### Key findings and recommendations

- The new local planning scheme should afford water resources that are identified as significant economic, social and/or environmental values an appropriate level of protection under the planning scheme via Special Controls Areas, setbacks/buffers and the requirement for the preparation and ongoing compliance with a management plan.
- A Regional Water Management Strategy will be prepared to address water resource and allocation considerations within the Town.

### 3.2.8 State Planning Policy 3.0 - Urban Growth and Settlement Policy

SPP 3.0 sets out the broad principles and considerations which apply to planning for urban growth and settlement in Western Australia.

Proposals for major new settlements, whether by large-scale additions to existing settlements or new free-standing settlements, are unlikely to prove to be a sustainable development option. New settlements are only likely to prove to be a sustainable development option where they address a significant shortfall of available residential land in the region, have a secure employment base, are large enough to support a range of local services including schools, shops and employment and there is no more sustainable alternative.

Notwithstanding this, new settlements may be necessary to provide accommodation for mineral and resource projects in remote locations. For mines located in reasonable proximity to the Town and where there is available residential land, infrastructure and facilities, the preference is to accommodate workforces in nearby communities.

#### Key findings and recommendations

- Local strategies and schemes should reflect and build on the urban growth and settlement policies set out in regional strategies and seek to identify sufficient land to meet future population and housing needs for at least a 10-year period. The identification of appropriate locations and/or general provisions for the development of new workforce accommodation should also be accounted for.
- Promote town-based accommodation and DIDO workforce to support a sustainable local economy.
- The Town of Port Hedland to prepare and implement a local planning policy in relation to Workforce Accommodation.

### 3.2.9 State Planning Policy 3.2 – Aboriginal Settlements Policy

SPP 3.2 provides the planning framework for the preparation of community layout plans and their incorporation into local planning schemes. In considering community living areas, proposals for new settlement will only be supported where the proposed settlement –

- Has an identified and sustainable drinking water source;
- Is not subject to inundation from river or creek flooding;
- Has a reasonable level of access to essential services including transport, health and education; and
- The landholding is of a sufficient size to accommodate a living area and all associated community infrastructure such as a water bore, sewerage ponds, rubbish tip and power supply.

#### Key findings and recommendations

- The new Local Planning Scheme No. 7 shall classify land as a ‘Settlement’ zone where—
  - o A layout plan has been endorsed under this policy; and
  - o A clear and appropriate area for a ‘Settlement’ zone is defined and delineated in the endorsed layout plan.
- A local planning scheme that includes a ‘Settlement’ zone is also to include provisions that require development to be in accordance with the endorsed Layout Plan.
- A layout plan has been prepared and endorsed in relation to the Yandeyarra Aboriginal settlement. The new Local Planning Scheme No. 7 could acknowledge this through applying the ‘Settlement’ zone to this settlement.
- The future of remote Aboriginal community settlements will depend on decisions by the State government in relation to Aboriginal communities more broadly.

### 3.2.10 State Planning Policy 3.4 – Natural Hazards and Disasters Policy

The purpose of SPP 3.4 is to minimise the adverse impacts of natural disasters on communities, the economy and the environment. SPP 3.4 seeks to ensure LPS’s and schemes provide planning responses to a range of natural hazards and disasters, including:

- Severe storms and cyclones;
- Storm surge;
- Coastal erosion;
- Bushfires;
- Landslides and other land movements; and
- Earthquakes.

#### Key Findings and Recommendations

- With particular reference to cyclonic activity, the new Local Planning Scheme No. 7 should include provisions for the requirement for structures to be able to withstand cyclonic winds and rain, as set out within the Building Code of Australia.
- Provisions for temporary approvals of non-permanent structures outside of cyclone season.

### 3.2.11 State Planning Policy 3.5 – Historic Heritage Conservation Policy

SPP 3.5 sets out the principles of sound and responsible planning for the conservation and protection of Western Australia's historic heritage. The objectives of this policy are to:

- Conserve places and areas of historic heritage significance.
- Ensure that development does not adversely affect the significance of heritage places and areas.
- Ensure that heritage significance at both the state and local levels is given due weight in planning decision-making.
- Provide improved certainty to landowners and the community about the planning processes for heritage identification, conservation and protection.

The Model Scheme Text and Deemed Provisions for local planning schemes (Regulations) provide for flexibility in the application of planning controls to realise positive heritage outcomes while also helping meet the expectations and aspirations of property owners.

Importantly, SPP 3.5 distinguishes between 'historic heritage significance' and 'urban character'. Areas of 'historic heritage significance' are select areas with special qualities embodied in the built form, will generally be quite rare within a locality and will have some form of underlying aesthetic, social, scientific or historic cultural heritage value. 'Urban character' can essentially be identified by the built form and age of an area and its relationship with the surrounding streetscape, open space, land use and activity. Different combinations of these factors help create local distinctiveness and character.

It is widely accepted that places assessed as being of cultural heritage value are given 'protection' under the statutory framework (scheme) where development must manage the cultural heritage value of the place. Character on the other hand is best 'protected' through the local planning policy framework, where details surrounding built form can be guided for a specific area.

#### Key findings and recommendations

- For the Town of Port Hedland to have statutory authority and the ability to influence or manage the development of a heritage place, the property needs to be included in its 'Heritage List', which sits under the local planning scheme.
- In accordance with the Town's 2017 Heritage Inventory, Grade A (exceptional significance) and Grade B (considerable significance) listed properties are included on the Town's Heritage List.

### 3.2.12 Draft State Planning Policy 3.6 – Development Contributions for Infrastructure Policy

Draft SPP 3.6 infrastructure contributions introduces a framework for the delivery of infrastructure to new and existing communities. It also establishes a system that enables the coordination and delivery of infrastructure that will provide opportunities for development of new communities in greenfield locations, infill locations, activity centres, corridors and high-frequency public transport routes, industrial nodes and station precincts.

A Development Contribution Plan (DCP) is used to levy contributions through the subdivision and development process. However, a DCP does not have effect until it is incorporated into a local planning scheme. Prior to (or concurrent with) identification of the first Development Contribution Area within a scheme, and associated formulation of a DCP, operative scheme provisions must be included in the scheme to provide the framework for formulating and implementing a DCP, as provided in the *Regulations*.

Draft SPP 3.6 (2017) will ultimately replace the existing SPP 3.6 (2009) with the intent that the revised policy will ensure that a greater level of accountability, transparency and consistency is achieved in the provision of infrastructure contributions.

#### Key findings and recommendations

- Consider including a provision that SPP 3.6 is to be read as part of the scheme. To ensure consistency in the application of the development contribution system across Western Australia, and to provide certainty for system users, the DCP template in Schedule 3 should be used and will be incorporated into the new local planning scheme. Any departure from the model format will need to be justified based on individual circumstances.
- The Town should consider the merit in developing development contribution plans for key growth areas in Port and South Hedland to manage the equitable provision of community infrastructure.

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

Additional Planning and building requirements apply to developments, within areas designated as bushfire prone by the Fire and Emergency Services Commissioner, in accordance with Schedule 2 Part 10A of the *Planning and Development (Local Planning Schemes) Regulations 2015*, State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP 3.7), the supporting Guidelines for Planning in Bushfire Prone Areas (Guidelines) and the National Construction Code.

SPP 3.7 seeks to guide the implementation of effective risk-based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure. The accompanying Guidelines provide supporting information to assist in the interpretation of the objectives and policy measures outlined in SPP 3.7. In accordance with SPP 3.7 and the Guidelines, a Bushfire Hazard Level (BHL) assessment should be undertaken to inform the suitability of an area for future development by categorising land as having a low, moderate or extreme bushfire hazard level. Given there is sufficient land zoned for residential purposes which has previously considered application of SPP 3.7, a BHL assessment has not been prepared along with the LPS.

Additional obligations apply to Local governments when mitigating the impact of bushfire. Local governments are required to develop an integrated Bushfire Risk Management Plans (BRMP) outlining a strategy to treat or reduce bushfire related risk across all land tenures and should be reviewed by the Office of Bushfire Risk Management (OBRM) and endorsed by the local government. BRMPs identify assets (Human Settlement, Economic, Cultural and Environmental), at risk from bushfire, assign them a risk rating and treatment priority, and set out a broad program of proposed coordinated, multi-agency treatment strategies to help reduce the risk to an acceptable level.

**Key findings and recommendations**

- The Local Planning Strategy to include high-level consideration of relevant bushfire hazards when identifying or investigating land for future development, which has not previously been considered in accordance with SPP 3.7.
- The Town's Ranger and Emergency Services shall prepare a Bushfire Risk Management Plan in accordance with the OBRM BRMP Guidelines that identifies, analyses, assesses, treats and reviews risks across the local government area.

### 3.2.14 Draft State Planning Policy 4.1 – State Industrial Interface Policy

SPP 4.1 guides planning decisions with the aim of protecting the long-term future operation of industry and infrastructure facilities, by avoiding encroachment from sensitive land uses and potential land use conflicts.

Key elements in achieving the objectives of this policy are:

- Statutory buffers should be provided around strategic sites and facilities of State significance with off-site impacts to prevent encroachment by incompatible land uses.
- Industries which generate off-site impacts should be located in Strategic or General Industry zones and ensure that off-site impacts can be contained within the industrial land use zone or surrounding compatible land use zones and/or reserves.
- A compatible interface should be provided between Strategic/General Industry zones and sensitive zones.

A statutory buffer should be designated via a Special Control Area for existing and proposed:

- Strategic Industrial Areas;
- Infrastructure facilities of State significance which generate off-site impacts;
- Individual industrial sites/facilities of State significance which generate off-site impacts; and
- As determined by Minister for Planning on advice from the WAPC.

Sensitive land uses should not be considered in industrial zones and Strategic and General Industry zones should not have a direct interface with sensitive zones in local planning schemes. An interface of compatible land use zones and/

or reserves should be identified in local planning schemes (such as Light Industry and Commercial zones and Public Open Space reserves.

Draft SPP 4.1 (2017) will ultimately replace the existing SPP 4.1 (1997) with some of the key changes to the policy including:

- A change of name to reflect the broader policy measures that extend beyond the application of statutory buffers;
- Application of the policy more broadly to planning for industrial zones and infrastructure reserves;
- Provision of new policy measures for planning for transitional zones to address incompatibility between industry and sensitive land uses;
- An implementation section which provides recommended approaches at each stage of the planning framework.

**Key findings and recommendations**

- The local planning scheme should:
  - o Identify Strategic, Industrial Development, General and Light Industrial zones;
  - o Identify compatible land use zones and/or reserves to provide a transition between General Industry and sensitive land use zones;
  - o Establish statutory buffers as Special Control Areas, or similar, with appropriate scheme provisions, for Strategic Industrial areas, strategic infrastructure facilities and industrial sites of State significance;
  - o Identify compatible and incompatible land uses within buffers and/or ensure zoning within buffers are consistent with the purpose of the buffer and do not constrain existing operations, or the proposed development/expansion, of the buffered industrial area or infrastructure facility; and
  - o Ensure zones identify any areas of land impacted by existing or proposed industrial land uses and infrastructure facilities, including high-pressure gas pipelines and mining operations, and exclude any sensitive land uses and/or zones from the impacted area of land.
- In addition to the above, strategic infrastructure secured through Stage Agreement leases / Port leases and associated off-site buffer requirements, to be recognised within the local planning strategy and/or new local planning scheme.

### 3.2.15 State Planning Policy 5.2 – Telecommunications Infrastructure Policy

SPP 5.2 provides guidance on matters relating to the location, siting, and design of telecommunications infrastructure (TI), with particular focus on protecting the visual character of local areas. The Policy provides for the benefit of improved telecommunication services to be balanced with the visual impact on the surrounding area.

#### Key findings and recommendations

- The new Local Planning Scheme No. 7 should:
  - o Include TI within the zoning table as a land use, and not designated as a prohibited use in any zone;
  - o Designate TI as permitted in zones where their location is supported, and provide guidance on exemptions to development approval;
  - o Not include buffer zones or setbacks related to TI; and
  - o Consider TI business case in draft Smart Cities Strategy.

### 3.2.16 State Planning Policy 5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning Policy

This policy aims to promote a system in which sustainable land use and transport are mutually compatible. It seeks to minimise the adverse impacts of transport noise, without placing unreasonable restrictions on noise-sensitive residential development or adding unduly to the cost of transport infrastructure.

It aims to provide a standardised and consistent triple bottom line framework for consideration and management of the impacts of transport noise and freight operations when dealing with:

- new noise-sensitive development in the vicinity of existing or future major transport corridors or freight handling facilities; and
- new major road or rail infrastructure projects, including major redevelopments, in the vicinity of existing or future noise-sensitive land uses

The policy does this primarily by:

- identifying the situations in which it would be appropriate to assess proposals for transport noise impacts ('policy trigger distances');
- establishing noise targets to be used in the assessment of these proposals; and
- identifying measures that can be adopted to reduce road and rail transport noise in these instances.

#### Key findings and recommendations

- Spatial planning for Port Hedland shall consider the impact of any expanding freight facilities on surrounding land uses as well as the interface between higher volume traffic and residential land uses in the context of noise attenuation; and
- The new Local Planning Scheme No. 7 can address the impact of noise through:
  - o identification of appropriate compatible land-use zoning that is commensurate with the function of the transport corridor;
  - o consideration of density and built form outcomes that will help alleviate and/or manage noise;
  - o Incorporating a provision within LPS7 for SPP 5.4 to be read into the scheme;
  - o outlining the need for additional noise mitigation measures through quiet house requirements and or noise barriers in accordance with the guidelines; and
  - o giving consideration to appropriate future planning provisions to ensure more detailed planning is undertaken at the subdivision and development stage.

### 3.2.17 State Planning Policy 7.0 – Design of the Built Environment Policy

This is the lead policy that elevates the importance of design quality across the whole built environment. It includes 10 principles for good design and establishes the framework for integrating design review as a part of the evaluation process. The 10 design principles are:

1. **Context and character:** Good design responds to an enhances the distinctive characteristics of a local area, contributing to a sense of place.
2. **Landscape quality:** Good design recognizes that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.
3. **Built form and scale:** Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.
4. **Functionality and build quality:** Good design meets the needs of users efficiently and effectively, balancing functional requirements to perform well and deliver optimum benefit over the full life-cycle.
5. **Sustainability:** Good design optimizes the sustainability of the built environment, delivering positive environmental, social and economic outcomes.
6. **Amenity:** Good design provides successful places that offer a variety of uses and activities while optimizing internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.
7. **Legibility:** Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.
8. **Safety:** Good design optimizes safety and security, minimizing the risk of personal harm and supporting safe behaviour and use.
9. **Community:** Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.

10. **Aesthetics:** Good design is the product of skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.

#### Key findings and recommendations

- The 10 principles of good design should be given regard when proposing any new development areas or infill areas.

### 3.2.19 Draft State Planning Policy 7.2 – Precinct Design

This policy seeks to guide the preparation and evaluation of planning proposals for areas that require a high level of planning and design focus due to their complexity - such as planned infill development, activity centre designation or areas with certain values such as heritage or local character.

#### Key findings and recommendations

- When considering areas requiring more detailed planning, the new Local Planning Scheme No. 7 should identify precinct types to guide the preparation of future precinct plans.

### 3.2.20 State Planning Policy 7.3 – Residential Design Codes Volume 1 and Volume 2

The R-Codes control the design of most residential development throughout Western Australia. The R-Codes aim to address emerging design trends, promote sustainability, improve clarity and highlight assessment pathways to facilitate better outcomes for residents. They are also used for the assessment of residential subdivision proposals. Volume 2 is a policy specifically for apartments and mixed-use developments which focuses on improved design outcomes for apartments.

#### Key findings and recommendations

- The new Local Planning Scheme No. 7 shall have regard to SPP 7.3 when nominating residential densities throughout the residential areas of the local government.
- Carry forward TPS5 requirement to construct outbuildings for single houses due to the area being located in a cyclone region.

### 3.3 Operational Policies and Guidelines

#### 3.3.1 DC 2.3 – Public Open Space in Residential Areas

Development Control Policy 2.3 - Public Open Space in Residential Areas (DC 2.3) contains a general requirement for residential subdivision to provide 10 percent of the gross subdivisible area as public open space (POS). It is noted that the Town has recently prepared and endorsed a POS Strategy which examines the provision of existing POS and requirements for future provision of POS.

**Key findings and recommendations**

- The Town’s recently endorsed POS Strategy is in line with the intent and objectives of DC 2.3.
- Investigate rezoning of privately owned lots which are developed and used as POS, without triggering injurious affection claim (i.e. Limestone Park lots owned by BHP in South Hedland).
- Delineate key drainage corridors from POS reservations in the new local planning scheme.

#### 3.3.2 DC 2.4 – School Sites

Development Control Policy 2.4 - School Sites (DC 2.4) establishes requirements for the provision of school and TAFE sites to service communities. The broad thresholds for provision of public school sites set out by DC 2.4 are:

- Primary schools – one site for every 1,500-1800 housing units; and
- Secondary schools – one site for every four or five primary schools.

**Key findings and recommendations**

- Future structure planning and subdivision of residential areas in Town will need to have regard to planning for future school sites.

#### 3.3.3 DC 3.4 – Subdivision of Rural Land

Development Control Policy 3.4 - Subdivision of Rural Land (DC 3.4) provides operational guidance regarding the subdivision of rural land to achieve the objectives of State Planning Policy 2.5: Rural Planning. The policy seeks to protect rural land to support primary agricultural production. It also recognises the need to secure significant basic raw material resources throughout regional Western Australia.

**Key findings and recommendations**

- The new local planning strategy and local planning scheme to include provision for a general presumption against subdivision of rural zoned land within the district.

#### 3.3.4 DC 4.1 – Industrial Subdivision

Development Control Policy 4.1 - Industrial Subdivision (DC 4.1) establishes matters to be considered by the WAPC when determining applications for industrial subdivision. The policy addresses matters relating to industrial interface, lot sizes and shapes, flexibility and staging, access and road layout and provision of POS.

**Key findings and recommendations**

- Future structure planning and subdivision of industrial land to have regard to the requirements of DC 4.1.

### 3.3.5 Draft DC 4.3 – Planning for High-Pressure Gas Pipelines

Draft Development Control Policy 4.3 - Planning for High-Pressure Gas Pipelines (DC 4.3) is applicable to land in the vicinity of any high-pressure gas pipeline in Western Australia. It identifies trigger distances in proximity to high pressure gas pipelines whereby proponents of subdivision and development applications may need to consult with the relevant pipeline operator.

It is noted that the Pilbara Pipeline System operated by APA extends within the Town, including the HBI Lateral pipeline which transports gas from Port Hedland to Alinta Energy's Port Hedland Power Station and the Boodarie Gas Lateral Pipeline that runs to the (now closed) Solomon CNG Plant.

#### Key findings and recommendations

- DC 4.3 recommends that the relevant pipeline owner/operator be consulted in preparing a new local planning strategy for a district.

### 3.3.6 Draft Liveable Neighbourhoods (2015)

Liveable Neighbourhoods is an operational policy for the design and assessment of structure plans (regional, district and local) and subdivision for new urban (predominantly residential) areas in the metropolitan area and the States regional centres, on greenfield and large urban infill sites.

The document establishes objectives, design principles and requirements which should be used to inform the preparation and assessment of structure plans and subdivision applications for urban / residential areas. The guiding objectives used to inform design of new urban areas are set out below:

1. To achieve a sustainable urban structure that balances the provision of urban development through site-responsive design;
2. Provide a network of interconnected streets based on function within attractive, safe and pedestrian friendly streetscapes, which facilitates accessibility for all users to, within and between neighbourhoods and activity centres;

3. Promote mixed-use development and activity centres that optimise commercial opportunities, access to public transport and efficient street network connections;
4. Ensure that water is protected and managed to maximise efficiency by incorporating urban water management techniques into urban design;
5. Facilitate housing diversity, responsive built form, local employment and amenity within a legible and efficient urban structure of compact walkable neighbourhoods;
6. Provide education sites and other community infrastructure to meet the needs of existing and future communities; and
7. Provide utility services in a land efficient, environmentally responsible and sustainable manner.

#### Key findings and recommendations

- Future structure plan and subdivision design should have regard to the requirements of Liveable Neighbourhoods.

### 3.3.7 Better Urban Water Management (2008)

The State government's Better Urban Water Management provides guidance on the implementation of State Planning Policy 2.9 - Water Resources and establishes water management documentation requirements through each stage of the planning process, to achieve integrated water cycle management.

At the LPS level, the document recommends that a Regional Water Management Strategy be prepared to define regional objectives for total water cycle management.

#### Key findings and recommendations

- A Regional Water Management Strategy (RWMS) should be prepared to support the preparation of a local planning strategy. This RWMS will inform future levels of water management planning at subsequent planning stage(s).

### 3.3.8 Acid Sulfate Soils Planning Guidelines (2008)

The Acid Sulfate Soils Planning Guidelines has been prepared to ensure that subdivision and development of land containing acid sulfate soils is planned and managed to avoid potential adverse effects on the natural and built environment.

The Guidelines outline a range of matters that need to be addressed at various stages of the planning process. At the LPS level, the Guidelines contain the following guidance statements:

Guidance Statement A1: Avoidance of disturbance where practicable

Where practicable, strategies proposing any chance of zoning that will lead to the introduction of, or an intensification of, development that is likely to result in significant amounts of excavation, drainage, or groundwater extraction on land depicted as being wholly or partially within an area of “high to moderate acid sulfate soils”, should be avoided.

Guidance Statement A2: Referral of marina, boat harbour and canal estate proposals

Strategies proposing any change of zoning that will lead to the introduction of a marina, boat harbour or canal estate in any area should be referred to the relevant environmental authority for advice prior to a decision being made.

**Key findings and recommendations**

- The new local planning strategy to provide high-level consideration and strategies responding to areas at risk of acid sulfate soils.

### 3.3.9 Tourism Planning Guidelines (2014)

The objectives of the Tourism Planning Guidelines are to:

- encourage a consistent approach to planning for tourism across LPS’s;
- ensure that tourism planning and development is considered at the strategic planning stage, as part of the wider planning context; and
- clarify expectations on the scope and detail required as part of a planning assessment, to enable considered planning decision making around tourism uses at the State, regional and local levels.

The Guidelines set out the purpose, scope and content of the tourism component of an LPS. The Guidelines establish the following criteria which should be used when giving consideration to identifying suitable sites for future tourism accommodation within an LPS:

- the site has been identified in a report/study as having the potential to accommodate a tourism facility; and/or
- the site contains an existing tourist accommodation development; and/or
- the site is located in an area of high tourist amenity and is of an adequate size to accommodate a tourism facility.

Sites should be assessed based on their suitability for tourism purposes. This will involve an analysis of the amount of vacant Tourist-zoned land currently available to determine whether this land will meet the needs forecast in the supply/demand study over the life of an LPS. Analysis should also identify sites zoned for tourism purposes which are no longer suitable for tourism based on size, location or existing non-residential development.

The Guidelines recognise that it is important to identify service capacity and infrastructure projects which could potentially impact directly and indirectly on tourism growth and visitor experience within the local government area including, access (e.g. roads, rail, airports), water, wastewater, telecommunications and power, noting that these factors can also impact on the growth of other sectors.

**Key findings and recommendations**

- The above site selection criteria and other considerations should be factored into the identification of tourist accommodation sites within the new local planning strategy.

### 3.3.10 Government Sewerage Policy (2019)

The State government released the new Government Sewerage Policy in September 2019. In broad terms, the policy requires a new subdivision to connect to reticulated sewerage where available. In instances where reticulated sewerage cannot be provided, the policy adopts a best practice approach to the provision of on-site sewage treatment and disposal.

The objectives of the policy include:

1. To generally require connection of new subdivision and development to reticulated sewerage;
2. To protect public health and amenity;
3. To protect the environment and the State's water and land resources;
4. To promote the efficient use of infrastructure and land;
5. To minimise costs to the broader community including by ensuring an appropriate level and form of sewage servicing is provided; and
6. To adopt the precautionary principle to on-site sewage disposal.

#### Key findings and recommendations

- The Government Sewerage Policy establishes minimum lot size and land capability requirements for subdivision of land that does not have the ability to connect to reticulated sewerage. This may have yield implications for zoned land beyond the available reticulated sewerage network within the Town.

### 3.3.11 Position Statement: Workforce Accommodation (January 2018)

The WAPC has prepared a position statement on workforce accommodation to outline requirements for development of workforce accommodation and to provide guidance for local government. The position statement acknowledges that the jurisdictions of the *Mining Act 1978* and State Agreement Acts can vary the application of the *Planning and Development Act 2005* and extinguish the requirement for mining operations to require the prior development approval of a local government.

The position statement does; however, provide local government with guidance in assessing applications for workforce accommodation where development approval is still required.

Additionally, the position statement provides guidance in the role that the local planning framework can play with respect to consideration of workforce accommodation development.

#### Local Planning Strategy

- Could acknowledge that workforce accommodation is economically critical infrastructure that may be required in a very short timeframe, which warrants a flexible approach to the application of the planning framework to be able to respond quickly to changing needs;
- Could identify preferred locations for future workforce accommodation; and
- Could provide direction on the circumstances in which it is appropriate for workforce accommodation to be located in existing towns.

#### Local Planning Scheme

- Could set land use permissibility in the local planning scheme to guide the location of workforce accommodation, where that accommodation is not associated with a mining tenement or State Agreement Act;
- Could include a provision within the local planning scheme to trigger possible consultation between the Ministers for Mining and Planning; and
- May include provisions that provide development requirements specific to workforce accommodation.

#### Local Planning Policies

- Utilise Local planning policies to provide guidance regarding the circumstances where uses could be approved.

#### Key findings and recommendations

- Local planning strategy to include a broad statement regarding the Town's position on workforce accommodation.
- Local planning scheme to establish land use permissibility for Workforce Accommodation and to include a separate provision which may trigger the possible consultation between the Ministers for Mining and Planning in relation to Workforce Accommodation within a mining tenement or on land subject to a State Agreement.
- The Town of Port Hedland to prepare and implement a local planning policy in relation to Workforce Accommodation.



# 4. Regional Planning Context

## 4.1 Pilbara Planning and Infrastructure Framework 2012

The Pilbara Planning and Infrastructure Framework 2012 (PPIF) establishes a framework to address a breadth of opportunities and challenges facing the Pilbara region through a range of strategic planning goals, objectives and actions. The Framework seeks to establish a more permanent population in the Pilbara through the expansion of Port Hedland and Karratha, reflecting their designation as Pilbara Cities.

In summary, the PPIF:

- addresses the scale and distribution of future population growth and housing development, as well as identifying strategies for economic growth, environmental issues, transport, infrastructure, water resources, tourism and the emerging impacts of climate change.
- sets out regional planning principles, together with goals, objectives and actions to achieve these. It represents an agreed 'whole-of-government' position on the broad future planning direction for the Pilbara and will guide the preparation of local planning strategies and local planning schemes.
- informs government on infrastructure priorities across the Pilbara and gives the private sector more confidence to invest in the region. The infrastructure priorities identified in the Framework have been determined, following extensive liaison with State Government agencies, local government and other key stakeholders.

The PPIF sets a population target of 50,000 people by 2035 for both Port Hedland and Karratha, reflecting their designation as Pilbara Cities. It also establishes several key themes including settlement, economy, utility infrastructure, community infrastructure, transport, natural environment, cultural heritage and development.

It is evident that the aspirational targets will not be met by 2035 and therefore many of the infrastructure priorities identified within the PPIF may not need to be delivered within the 2035 timeframe.

### Key findings and recommendations

- It is evident the target to accommodate 50,000 people within Port Hedland by 2035 will not be achieved within this timeframe due to the slowing down of the mining economy and other factors. This will have a bearing on the timing of delivery of key infrastructure to support the region in the short to medium term.
- Traffic growth estimates for Great Northern Highway are highly optimistic and do not correspond with current use. For example, approximately 25,000 vehicles per day were anticipated on Great Northern Highway in Port Hedland by 2019; however, traffic on Great Northern Highway in this area is generally below 5,000 vehicles per day with exception of the section near Port Hedland International Airport.
- Road transport action plan does not stipulate any Port Hedland-specific actions.
- It is noted that the PPIF requires updating to reflect new population scenarios and market conditions.

## 4.2 Pilbara Regional Investment Blueprint (2016)

The Pilbara Regional Investment Blueprint was prepared by the Pilbara Development Commission (PDC) and represents a commitment by the PDC to tackle the key risks and challenges facing the Pilbara region, through innovative thinking.

The document articulates a vision for the Pilbara by the year 2050 which describes Port Hedland and Karratha as developing into vibrant modern cities, underpinned by a hierarchy of lower order centres.

The document outlines nine Regional Pillars which are considered integral to realising the vision for the Pilbara:

- Land Access and Economic Infrastructure
- Education, Training and a Skilled Workforce
- People and Communities
- Logistics, Engineering and Supply Chains
- Innovative and Advanced Technology
- Diverse and Robust Small and Medium Businesses
- Agriculture and Aquaculture
- Energy
- Tourism

The document identifies a suite of transformational opportunities and the opportunities, benefits, constraints and challenges in pursuing these. The document has been prepared on the back of the Pilbara Cities funding program and incorporates the aspirational vision and growth scenarios that informed the Port City Growth Plan.

### Key findings and recommendations

- The transformational opportunities identified by the document should be reviewed and considered to inform the preparation of relevant economic development and tourism strategies for the Town.

## 4.3 The New Pilbara (2016)

The New Pilbara (2016) is a report published by the PDC and documents what was delivered through the \$1.7 billion committed by the then State Government through the Royalties for Region's Pilbara Cities initiative, since its inception in 2009.

The document recognises the challenges faced by regional communities such as Port Hedland, and acknowledges that in order to achieve a population target of 50,000 people, strategic effort will be needed in the following key focus areas:

- Community projects and engagement – education, health, community facilities and Indigenous participation.
- Land availability and development – land preparation, planning, developer attraction and retention, and housing.
- Economic diversification – industry development, business attraction and development and transformational projects.
- Infrastructure coordination – energy, water, wastewater, roads, ports and marinas.

The report identifies the following projects which are applicable to Port Hedland:

- Pilbara Town-Based Reserves Project.
- Bloodwood Tree Aboriginal Training and Employment Centre in South Hedland
- Health and Allied Services in South Hedland
- Pilbara-Wide Education Attraction and Retention Program
- Pilbara-Wide E-Learning Program
- Hedland Senior High School Upgrade
- Improvements to Clinical and Imaging Equipment Pilbara-wide
- Pilbara Health Initiatives Partnership
- Various park upgrades
- South Hedland Aquatic Centre and South Hedland Bowling and Tennis Club
- Wanangkura Stadium in South Hedland
- West End Revitalisation Scheme
- Various key worker housing projects
- Communications Enhancement Project
- Co-working and Innovation Centre
- Pilbara Hinterland Agricultural Development Initiative
- Pilbara Underground Power Project
- Wallwork Road Bridge

- Boodarie Entrance Road (has not been delivered)
- Spoilbank Marina Project
- South Hedland Town Centre Revitalisation Project
- Pilbara Water Resource Assessment
- South Hedland Wastewater Treatment Plant (WWTP) Upgrades

The document was prepared as part of the Pilbara Cities initiative and documents a number of transformational projects as part of this initiative.

#### Key findings and recommendations

- Development initiatives documented within *The New Pilbara* document are noted in relation to the Town.

## 4.4 Port Development Strategy 2030

The Port Development Strategy 2030 has been prepared by the PPA to establish strategies for land use, infrastructure development and logistics across the ports it operates within the Pilbara. PPA's vision is *'To be the global leader in port planning, operations and marine services'* which is underpinned by three broad objectives:

- To facilitate trade through the Pilbara for the benefit of the State.
- To manage the ports' growth and operations, while respecting the Pilbara's environment and heritage.
- To optimise performance through industry leading practices and innovation.

The Strategy identified a number of development objectives and strategies to optimise performance of the Pilbara Ports.

The Strategy establishes the following development outcome for the Port of Port Hedland:

**'The Port of Port Hedland will sustain growth as the world's largest bulk commodities export port, with a focus on facilitating trade for the resource sector'.**

The competitive advantages that the Port of Port Hedland is able to leverage are:

- Proximity to significant iron ore resources and Pilbara pastoral land holdings.
- Access to a freight network including the Great Northern Highway.
- Port Hedland's deep-water inner harbour.
- Extensive land resources including reclaimed land and planned future expansions to port land.
- A comprehensive dredging programme in conjunction with advanced marine technology including Dynamix Under Keel Clearance (DUKC) to maximise vessel drafts.
- Access to a local workforce, accommodation and service industries that support major projects and general operations.

#### Key findings and recommendations

- The document notes the following factors which may contribute to the potential increased capacity of the Port:
  - o Development of additional land to support port activities (such as the future vesting of land at Boodarie for the development of stockyards, and the development of reclaimed land at South West Creek).
  - o The development of industrial land (such as the Boodarie Strategic Industrial Area) and associated infrastructure.
  - o Further dredging work within the port to support the development of new infrastructure.
- The new local planning scheme will need to appropriately zone land consistent with Pilbara Ports Authority boundaries and reserve infrastructure corridors to support and protect Port developments.
- It is noted that the northern part of Wedgefield is currently located within Pilbara Ports Authority boundaries. Following the realignment of Great Northern Highway, the Town to consider rezoning this area to Industry.

## 4.5 Pilbara Conservation Strategy (2016)

The Pilbara Conservation Strategy (PCS) was prepared by the State government to provide strategic direction for conservation actions across the Pilbara region and takes a landscape-scale approach to biodiversity conservation. The PCS establishes a vision for conservation within the Pilbara, as follows:

“The diverse natural environments and exceptional biodiversity of the Pilbara are enhanced and conserved, through enduring partnerships, for their intrinsic value and for the social, cultural, spiritual and economic wellbeing of the community.”

The key conservation outcomes sought by the PCS include:

1. Landscape-scale conservation through improved management of key threats;
2. Improved condition of threatened and other important species and communities;
3. Evidence-based conservation management;
4. Conservation through partnerships.

The document identifies a range of on the ground implementation priorities for conservation in the Pilbara, including prescribed burning to control bushfires and programs to control feral animals and weed invasion.

### Key findings and recommendations

- Opportunities for broad scale landscape conservation should be explored on Pastoral and Aboriginal reserves.

## 4.6 Pilbara Tourism Product Development Plan (2014)

The Tourism Product Development Plan (TPDP) establishes an implementation plan to further develop the tourism offer in the Pilbara. In developing this implementation plan, the document acknowledges that there are several challenges to increasing the tourism offer for the region, being:

- Physical location and size of the region, which translates to significant travel time and cost to visit;
- Dominance of the mining and resource sector which creates the perception that the Pilbara has ‘nothing to offer’ and masks its existing tourism product;

- Relatively high cost basis, influenced by the mining and resource sector; and
- Lack of tourism operators which diminishes access to many of the Pilbara’s potential tourism products.

Notwithstanding these challenges, the TPDP establishes the following vision for tourism in the Pilbara:

- By 2050, the Pilbara is a recognised tourism destination, attracting a range of visitors with its natural and man-made attractions and delivering a variety of significant economic, social and community benefits to the residents of the Pilbara.

The document acknowledges the wide variety of tourist attractions on offer currently provided within the Pilbara and identifies a range of short-term and long-term product development priorities to augment the existing offer. These are set out below.

### Short-term tourism product development priorities

- **Regional Tourism Trails:** Creation of themed tourism trails to highlight the variety and depth of individual tourism experiences and products on offer throughout the region.
- **Regional/Destination Marketing:** Marketing of the themed tourism trails will be conducted through signage, gateway statements and online and digital marketing.
- **Diverse Range of Accommodation:** Seek to diversify the existing accommodation offer with the addition of caravan parks, backpacker accommodation, eco-accommodation and camping. This accommodation is planned to be provided in coastal destinations, pastoral stations and national parks to enhance the accommodation offer.

### Long-term tourism product development priorities

- **Better and more extensive road infrastructure:** identify extensive road improvements and extensions that would support tourism into the future. Replacing many unsealed roads with bitumen would provide greater connectivity within the region.

- **Marinas:** The development of numerous marinas along the coast, including the Spoilbank Marina, would provide important infrastructure for growing water-based coastal tourism.
- **Airport expansions:** Various airport expansions, including to the Port Hedland International Airport (PHIA), would support greater levels of access to the region, particularly from overseas.
- **Hotels:** The development of a diverse range of hotels at varying price points (including provision for family accommodation, backpackers, etc) would provide greater levels of choice to attract a more diverse range of visitors.
- **Wildlife park:** A wildlife park to focus on Indigenous and non-Indigenous animal species, ideally set amongst a national park or along the coast.

#### Key findings and recommendations

- Ensure that the revised local planning strategy identifies strategies and actions relating to the following:
  - o regional tourism trails; and
  - o strategies to diversify tourism accommodation.
- The construction of the Spoilbank Marina will provide for additional recreational boating activities and will contribute to the overall local tourism offer.
- The new local planning scheme should identify a range of appropriate use classifications for tourism accommodation and provide the discretion for such uses to be approved in appropriate locations.

## 4.7 Draft Port Hedland Regional Land Supply Assessment (2019)

The *Port Hedland Regional Land Supply Assessment Draft (WAPC; unpublished)* provides guidance on the volume of land required to support future population and employment activities within Port Hedland in the short, medium and long term. Whilst the individual datapoints recorded for the region, in terms of current and future population and economic activity, differ somewhat between the *Port Hedland Regional Land Supply Assessment Draft* and those published in Sections 6.1 and 6.2 of this document, the context of the existing

profile and the implications outlined for future land demand remain consistent.

Overall, the study found sufficient land availability to accommodate future population growth with remaining lots available in existing residential land and rural living estates. Residential land zones (excluding rural living estates) are estimated to be sufficient to accommodate a population of approximately 26,000 and would be anticipated to support the Port Hedland population for at least the next 48 years (under medium and high population growth scenarios). In addition to residential land, rural living estates are present in the region. Existing estates have experienced low take-up rates in recent years, reflecting low demand for rural living zones within Port Hedland.

It is anticipated that the Bosna Estate will be sufficient to meet short-term demand for rural living lands, whilst the sub-division plans for Quartz Estate are sufficient to meet long-term demand.

Industrial land zoning in Port Hedland is provided for via the following zoning categories; industrial development, general industry, light industry, strategic industry and transport development. Industrial zoned land in Port Hedland totals 5,950 ha with just 190 ha considered developed. A considerable portion of zoned land (93%) is considered 'unrated' and almost all of this land is Crown Land (zoned strategic industry) and subject to Native Title. Existing estates of Wedgefield and West End are considered fully developed. Via the delivery of the Boodarie SIA, approximately 4,600 ha is anticipated to accommodate large-scale noxious and other heavy industry uses as well as enabling accommodation of heavy and general industry uses from Wedgefield and West End, which will accommodate increased industrial activity within Port Hedland. The study does not explicitly indicate whether anticipated industrial activities would require additional industrial lands.

Commercial land zoning in Port Hedland is provided for within the airport, commercial, mixed business, tourism and town centre zones. These zones account for 120 ha of land in the municipality, 58% of which is developed. Approximately 11% of this land is considered undeveloped, and the remainder is considered unrated. Recent population declines have resulted in reduced demand for commercial land

within the municipality. The study found that the existing supply of commercial zoned land would be adequate to meet demand in the short to medium term.

**Key findings and recommendations**

- The findings of the *Port Hedland Regional Land Supply Assessment Draft* indicate sufficient land for anticipated population growth and associated retail and commercial activity. However, estimated demand for industrial lands is not quantified. Identifying and quantifying the degree of economic diversification which takes place in the region over the coming decades will be essential to understanding the adequacy of industrial lands available within the municipality. Whilst the study discusses potential avenues for economic diversification, such as increased activities from knowledge-based industries, these are not quantified against existing land supply (though the anticipation of appropriate sites for campuses is suggested). However, given the quantum of supply coming online in the near future, it is likely that the volume of industrial land will be adequate for industry in the short to medium term.
- With land supply adequate for population and likely employment activities in the region, the focus for land planning in Port Hedland can be the optimal location and mix of land uses within the area.

## 4.8 Port Hedland International Airport Master Plan 2018-2038

The Port Hedland International Airport Master Plan 2018-2038 (PHIA Master Plan) establishes a coordinated approach to the staged delivery of key airport infrastructure to accommodate the forecast growth in airline traffic. The PHIA Master Plan includes the following aspirations:

- Build upon the “Gateway to the Pilbara” experience;
- Provide for the upgrade and expansion of the passenger terminal to present a modern, efficient passenger experience;
- Develop a land use framework that can accommodate the aspirations of the Town, regional planning and the future growth and prosperity of the Pilbara;
- Become the dominant intermodal transportation and logistics hub in the Pilbara;
- Encourage non-aviation and commercial development; and
- Foster opportunities for local employment and education.

The Master Plan divides the PHIA site into six separate precincts, as follows:

- Airside Precinct (309.4 ha)
- Northern Precinct (107.6 ha);
- Terminal and General Aviation Precinct (24.5 ha);
- Freight Precinct (8.4 ha);
- Highway Precinct (89.3 ha); and
- Airport Industrial Park Precinct (278.3 ha).

Of particular interest from a land use planning perspective, the PHIA Master Plan notes the following non-airport specific related land uses contemplated for specific precincts:

**Table 1 – Contemplated Uses for PHIA Master Plan Precincts**

Precinct	Contemplated Land Uses
<b>Northern Precinct</b>	<ul style="list-style-type: none"> <li>• Bulk freight;</li> <li>• Service stations; and</li> <li>• Laydown yards.</li> </ul>
<b>Terminal and General Aviation Precinct</b>	<ul style="list-style-type: none"> <li>• Vehicle servicing;</li> <li>• Car wash;</li> <li>• Service station;</li> <li>• Hotels and short-term accommodation; and</li> <li>• Residential use for airport operational staff.</li> </ul>
<b>Freight Precinct</b>	<ul style="list-style-type: none"> <li>• Freight storage shed;</li> <li>• Laydown yards;</li> <li>• Vehicle servicing;</li> <li>• Freight forwarding facilities;</li> <li>• Ground transport access for freight vehicles;</li> <li>• Warehousing;</li> <li>• Distribution facilities;</li> <li>• Parking for freight vehicles; and</li> <li>• Ancillary freight uses.</li> </ul>
<b>Highway Precinct</b>	<ul style="list-style-type: none"> <li>• Offices for businesses that use the airport;</li> <li>• General warehousing;</li> <li>• Industry-general;</li> <li>• Industry-light</li> <li>• Retail fuel sales;</li> <li>• Road freight facilities and road transport lay down yards;</li> <li>• Car dealerships;</li> <li>• Short term accommodation (i.e. Transient Workforce Accommodation); and</li> <li>• Solar power storage collection.</li> </ul>

The Master Plan acknowledges that the PHIA is subject to a 50-year lease with the Town and the Town will continue to retain its statutory role in assessing development applications pursuant to its local planning scheme.

#### Key findings and recommendations

- Consideration will need to be given to zoning and land use permissibility within the PHIA site as part of Local Planning Scheme No. 7.
  - The Master Plan is silent on pedestrian and cycling infrastructure requirements in the precinct. This was identified as one of the key requirements.
  - In some of the earlier documents a shortage of parking on airport premises was mentioned (dating from 2010 with roughly 280,000 passengers per year). This masterplan states the parking area is underutilised and there is sufficient capacity to increase the number of passengers to 487,000 by 2034.
  - In the Master Plan a clear intent was shown to develop three separate business / industrial precincts on the airport land. Notwithstanding that this was flagged as a long-term plan, the Master Plan is silent on the potential impact on the transport network.
  - The Master Plan document also indicates the intention to intensify freight air transport. The impact on the existing road network was not analysed.
  - The costs of infrastructure upgrades are noted as a key risk in Section 3.8 as these are usually calculated separately to the cost of building airport infrastructure.
  - While the Town of Port Hedland (and presumably Horizon Power) upgraded electrical assets in 2016, the report states it is not clear if the upgrades would be sufficient for future expansion of the Port Hedland International Airport and that this should be reviewed by a qualified electrical consultant.
  - The report confirms that there is no direct connection between the Port Hedland International Airport and the Water Corporation wastewater system. Section 3.8.2 states that “only a basic treatment system” presently exists. For greater expansion of passengers and freight logistics a full review of the wastewater system should be undertaken with consideration to connect the Port Hedland International Airport to the Water Corporation system.
- Section 3.8.3 also confirms that existing water storage tanks and pumping systems are nearing the end of their design lives and consideration should be given to a full upgrade of the internal and external water systems as part of the redevelopment of the Port Hedland International Airport.
  - Section 3.8.4 documents the existing overland flow characteristics of the stormwater drainage and states that presently overland flow is “directed towards the existing building” and that “from there, it flows over land to the east to be collected and eventually into open swales that traverse adjacent properties passing under the North West Coastal Highway to discharge to the Indian Ocean.”
  - There is no confirmation of whether it is acceptable that the flow path from the apron toward the buildings is or isn’t acceptable for future expansion of the premises, and no confirmation on the adequacy of the present system to accommodate existing flows between the PHIA and the Indian Ocean.
  - Further, there is no confirmation that any expansion of hardstand areas can be accommodated within the existing stormwater drainage network and whether there are any issues with the expansion of the drainage assets as they are stated to traverse private properties between the PHIA and the Indian Ocean.
  - A major existing low point for drainage purposes is also located 1.5 kilometres northwest of the subject site (unnamed) with Stingray Creek located 1.6km north of the subject site. These are interconnected by a series of stormwater drains.



# 5. Local Planning Context

## 5.1 Integrated Planning and Reporting Framework

### 5.1.1 Strategic Community Plan 2018 – 2028

The Town’s Strategic Community Plan 2018 – 2028 (SCP) represents the highest level of strategic corporate planning for the Town. The SCP was prepared following a comprehensive

community and stakeholder engagement process and articulates the aspirations of the community over a 10-year timeframe.

The SCP establishes a range of desired outcomes, progress measures and strategic responses to deliver the desired outcomes across a number of themed areas. The themes and desired outcomes are referenced in the table below.

Table 2: Town Strategic Community Plan themes and desired outcomes

Theme	Desired Outcomes
<p><b>Our Community</b></p> <p>We honour our people and our cultural heritage – ensuring wellbeing, diversity, creativity and a strong civic dialogue.</p>	<ul style="list-style-type: none"> <li>• A hardy, healthy and safe people</li> <li>• An inclusive and involved community</li> <li>• A unique, vibrant and diverse community lifestyle</li> <li>• Well-utilised and valued community facilities and services</li> </ul>
<p><b>Our Economy</b></p> <p>We build prosperity for all – enabling sustained economic growth</p>	<ul style="list-style-type: none"> <li>• Enhanced participation in the workforce</li> <li>• An enabling, attractive business environment</li> <li>• A thriving, resilient, sustainable and diverse economy</li> <li>• The development and expansion of key industries</li> </ul>
<p><b>Our Built and Natural Environment</b></p> <p>We treasure and protect our natural environment and provide sustainable and resilient infrastructure and built form</p>	<ul style="list-style-type: none"> <li>• A healthy natural environment</li> <li>• A safe and fit-for-purpose built environment</li> <li>• An accessible and sustainable urban environment</li> </ul>
<p><b>Our Leadership</b></p> <p>We are united in our actions to connect, listen, support and advocate thereby leveraging the potential of our people, places and resources</p>	<ul style="list-style-type: none"> <li>• A global, national, state and local presence and voice</li> <li>• Transparent and accountable governance and financial sustainability</li> <li>• Effective delivery of services and infrastructure to meet community needs</li> </ul>

The SCP informs the Town’s Integrated Planning and Reporting Framework, including Corporate Business Plan, annual plans and asset management plan.

The preparation of the SCP was informed by one of the most extensive engagement programs rolled out in Hedland and the information captured serves as a useful basis to build upon in preparing a new LPS for the Town. A summary of relevant issues captured during the SCP engagement program is outlined in the following table.

Table 3 – Key Issues arising from SCP engagement

Area	Issue
<b>Community</b>	<ul style="list-style-type: none"> <li>• Hedland diverse population is viewed as a strength and the Australian Institute of Aboriginal and Torres Straight Islanders (ATSI) and culturally and linguistically diverse communities (CALD) need to be included in decision making.</li> <li>• The Hedland community enjoy the sporting and recreational culture, but noted that there needs to be greater investment in attracting ATSI and CALD to these activities.</li> <li>• Aboriginal leadership was seen as a strength within the community and there needs to be greater investment into developing young Aboriginal leaders.</li> <li>• There is general agreement that youth need greater investment in the quality of education available, life skills training, pathways to work, access to safe places to recreate, services, programming and facilities.</li> <li>• There is concern about rising socio-economic disparity and the need for actions to address inequality in the community and cost of living.</li> <li>• Health services are seen as a fundamental priority and the challenges of addressing the needs of aging and the chronically ill were highlighted as areas requiring particular focus.</li> <li>• The community is less concerned with building more facilities and desires a greater focus on ‘working with what we’ve got’. Focus should be on provision of more services and programs to foster a more connected and lively culture in order to bridge the gap between townships and communities.</li> <li>• While the desire for a marina is not broadly supported, there is a desire for greater investment in boating facilities.</li> <li>• The community appreciate that the arts and culture are supported through the presence of local community groups.</li> </ul>
<b>Economy</b>	<ul style="list-style-type: none"> <li>• The community value the economic benefits of living and working in Port Hedland but expressed the challenges of high living costs and living in a town that is subject to a boom-bust cycle.</li> <li>• Stakeholders believe the economy of Port Hedland needs to diversify by building small to medium enterprises and noted the difficulties of sustaining businesses in a town with high costs of doing business and high levels of transience.</li> <li>• The need to develop strategies to support small and medium sized businesses through local procurement incentives, avenues for partnerships, affordable commercial tenancies and strategies to attract a residential workforce.</li> <li>• Cost of living is broadly seen as an area requiring greater attention, particularly to help address core costs such as housing, transport (flights), food and services.</li> <li>• Industry generally wants to see greater investment in key infrastructure, education, health and community facilities and services so they can attract and retain the best staff.</li> <li>• The need for investment in the port is seen as an area of great potential for Hedland which would contribute to the town’s long-term sustainability and its role in contributing to the nation’s economy.</li> <li>• The need for a small business hub in South Hedland and greater investment into the area’s tourism industry to capitalise on the area’s unique cultural and natural features.</li> </ul>

Area	Issue
<b>Natural and Built Environment</b>	<ul style="list-style-type: none"> <li>• The natural environment is treasured by many and seen as an important asset to be nurtured and protected.</li> <li>• Custodians of the area said that one of the strengths of Hedland is that elders can still take you out into country and teach about culture. They advocated for programs to build understanding of their cultural heritage.</li> <li>• Residents view parks as an integral part of the urban setting to provide shade from the Pilbara sun, to beautify areas and to create community spaces.</li> <li>• The community want sustainable practices like recycling and green community initiatives which preserve and enrich the natural environment to be prioritised.</li> <li>• Greater investment in amenity and upgrades to the foreshore, Spoilbank, South Hedland Square, and more lights in South Hedland to improve safety.</li> <li>• Concerns about dust and industry’s effect on the environment prevail, despite industry efforts to manage this issue.</li> <li>• Industry stakeholders voiced an interest in partnering with the Town to share information on environmental management.</li> <li>• Many community members believe there needs to be a greater focus on enhancing the local character and spirit of built form, green star ratings and more options for mixed and affordable housing.</li> </ul>

#### Key findings and recommendations

- The above key findings arising out of the engagement for the SCP will be used as a basis for engaging with the community and stakeholders through the preparation of the revised local planning strategy and new local planning scheme.
- Where practical, the local planning strategy should be informed by, and aligned with, the SCP to ensure the local planning strategy plays a further role in delivering the desired outcomes established within the SCP.

## 5.1.2 Corporate Business Plan 2018 – 2028

The Corporate Business Plan 2018-2028 aligns the Town's service delivery to the SCP to deliver desired outcomes to the community. The Corporate Business Plan will be reviewed annually to ensure that it remains current and responds to challenges and opportunities. The Corporate Business Plan identifies a suite of actions to deliver a strategic response to the Town's SCP.

### Key findings and recommendations

Key actions relevant to this study include:

- Engage with key stakeholders to promote a residential first approach for workforce accommodation (1.b.2.1).
- Provide meaningful opportunities for Aboriginal and Torres Strait Islander people to engage with the Town (1.b.3.1).
- Support the provision of cultural, sporting and recreational facilities which are fit for purpose (1.d.3.1).
- Develop, implement and review partnerships with key stakeholders to promote economic growth and diversification (2.b.2.1).
- Regularly review policies and local laws to minimise red tape within statutory frameworks (2.b.3.1).
- Work with key stakeholders to develop, implement and review strategies to stimulate and diversify the local economy and address business challenges (2.c.1.1).
- Develop, implement, monitor and promote strategies to protect and enhance Port Hedland's natural environment (3.a.1.1).
- Develop, implement and review a POS Strategy (3.b.1.1).
- Identify and manage coastal hazards and flood risks (3.b.1.2).
- Advocate and support State government initiatives to resolve land use conflicts (3.b.1.3).
- Appropriate community engagement is undertaken for strategic planning and land use decisions (3.b.5.2).
- Develop, implement and review public open space in line with the Parks and Paths Strategy (3.c.3.1).

## 5.1.3 Strategic Resource Plan 2019/20-2033/34 (draft)

The Strategic Resource Plan (2019-2033) (SRP) is part of the Town's integrated approach to planning and identifies key projects over the next ten years.

The document highlights expenditure requirements for a range of key infrastructure, including but not limited to, roads, footpaths, drainage, car parks, landfill and depot.

### Key findings and recommendations

- Relevant base data is not collected regularly.
- Road network conditions and traffic volumes should be recorded regularly.
- Stormwater drainage asset maintenance (cleaning of culverts and trash racks / grates) in particular, is a key requirement in the Town of Port Hedland as the accumulation of sediment and debris has an impact on the capacity of culverts.

## 5.2 Strategic Planning Framework

Strategic land use planning of the Town of Port Hedland has, in recent times, been guided by three principal documents, being:

- Port Hedland Area Planning Study prepared in 2004;
- Port Hedland Land Use Master Plan prepared in 2007; and
- Pilbara Port City Growth Plan prepared in 2012.

These documents are reviewed in the following section.

### 5.2.1 Port Hedland Area Planning Study

Published in 2004, the Port Hedland Area Planning Study provided a comprehensive strategy framework to guide State decision-making and detailed planning at the local level for the Town, with a planning horizon of 20-25 years. The study made several recommendations regarding the future of Port Hedland, many which have been implemented. The Study was subsequently replaced by the Pilbara Planning and Infrastructure Framework as the primary regional strategy.

## 5.2.2 Port Hedland Land Use Master Plan

The Port Hedland Land Use Master Plan (LUMP) was published in 2007 and adopted as the Town of Port Hedland's LPS to guide the town's growth and development over a 20 to 25-year period. It focuses on the use of land and its development character, defining the community's long-range vision of how the physical form of the town should develop.

The development of the LUMP was guided by a Steering Committee which consisted of a wide range of stakeholders and government representatives and was also informed through a comprehensive community engagement process.

### Key findings and recommendations

Key recommendations of the LUMP that remain relevant to the review of the Town's local planning strategy include:

- Environmental and heritage investigations to identify appropriate land at the southern end of the Boodarie Industrial Estate for general industry and noxious uses.
- Preparation of a structure plan for release of general industrial land in the area east of Wedgefield, around the Shell Roadhouse.
- Review of land use permissibility and definitions in Wedgefield.
- Mapping and prioritisation of natural areas in the Town, including turtle nesting areas.
- Clearance of Native Title on proposed residential expansion areas, particularly in South Hedland.
- Improvements to Great Northern Highway and access to the western side of the Port.
- Managing the effects of dust in the West End precinct.

## 5.2.3 Pilbara's Port City Growth Plan and Implementation Plan

The Pilbara's Port City Growth Plan (Growth Plan) and Implementation Plan were endorsed by Council in May 2012 with the Growth Plan being adopted by the WAPC in December 2012. Together, they form the Town's current LPS.

The Growth Plan was prepared during the height of the resources sector construction boom, which has since shifted into the operational phase. Evidently, the population and economic growth projections used in the Growth Plan

are aspirational in nature and are no longer appropriate to underpin the future strategic growth and direction of the Town. The Pilbara's Port City Implementation Plan was not endorsed by the WAPC.

### Key findings and recommendations

- The local planning strategy will align with the Town's current Strategic Community Plan.
- The Port City Growth Plan was prepared at the height of the mining boom and was based on an aspirational population growth of 50,000 people by 2035. Current population growth projections forecast Hedland's population to grow to between approximately 18,500 (conservative, RFF) and 27,000 (aspirational, Forecast.id) people by 2040.
- The extent of population growth within Port Hedland will be influenced by a range of factors including some policy decisions at the Federal and State level (i.e. position on FIFO and migration). This will impact upon the desirable pattern of land release, built form and infrastructure considerations.
- A staged approach to residential growth should be developed based on current population projections and should take into account the following considerations:
  - o Much of the vacant residential land identified within the Port Hedland townsite in the Growth Plan is either constrained (coastal inundation) or now set aside for other uses (i.e. McGregor Street recreation precinct).
  - o The Stables precinct and former Wastewater Treatment Plant site appear suitable as Urban Development areas.
  - o There is a substantial bank of vacant residential zoned land in South Hedland and it will be important to ensure that this land is subdivided and released in a logical and efficient manner over time. Logic would suggest focussing on existing vacant infill development sites in the first instance to make efficient use of existing infrastructure, before moving to release new urban land.

- Consideration needs to be given to future provision and location of retail and commercial land to service the Port Hedland townsite given that the West End Improvement Scheme is likely to prevent further expansion and evolution of the existing commercial and retail uses within the West End Precinct.
- A review of infrastructure capacity requirements to support growth and development is required due to revised population and growth projections.
- Investigate identification of new Special Control Areas associated with coastal hazards and Public Drinking Water Source Protection Areas.
- Many actions within the Implementation Plan, forming part of the Growth Plan, are either outdated or do not relate to planning matters.

## 5.3 Statutory Planning Framework

### 5.3.1 Town of Port Hedland Local Planning Scheme No. 5

The Town's Town Planning Scheme No. 5 (TPS5) was originally gazetted on the 31 August 2001. Town Planning Schemes should be reviewed every five years and therefore the review of TPS5 is well overdue.

A review of the TPS5 should be undertaken having regard to the future requirements of the Scheme area and also taking into account relevant State and local planning policies. Specifically, the preparation of Local Planning Scheme No. 7 should have regard to the Model provisions (Schedule 1) of the *Planning and Development (Local Planning Schemes) Regulations 2015*.

Key areas of TPS5 that require review include:

- The identification of new aims to address current land use planning issues;
- The standardisation of local reserves and zoning to accord with the model provisions of the Regulations;
- A review of the land use classifications to generally accord with the model provisions of the Regulations and rationalisation of use classes (i.e. tourism use classes);
- A review of land use permissibility within the zoning table to ensure current best practice is applied to land use allocation and

to address specific compatibility issues i.e. within Wedgefield;

- Review and establish new development requirements for specific zones;
- Carry over existing Special Control Areas and introduce new Special Control Areas to address coastal hazards, and public drinking water source areas; and
- Introduce new supplemental provisions which address specific local issues over and above those already addressed by the deemed provisions of the Regulations.

#### Key findings and recommendations

- Review TPS5 in light of the model and deemed provisions of the Regulations and to address current issues, within new LPS7.

### Local Planning Policies

The following section provides a short review of existing Local Planning Policies of the Town, noting that these policies should be regularly reviewed and updated where required to ensure they remain current and apply best practice.

#### LPP/01 Exemptions from Development Approval

This policy outlines specific development that is exempt from requiring development approval. The exemptions are intended to apply by way of Clause 61 (1) (1) and Clause 61 (2) (e) of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015* which provides the power for a local planning policy to exempt certain uses and works from requiring development approval.

LPP/01 lists certain circumstances in which a 'Family Day Care' does not require development approval.

#### Key findings and recommendations

- Consideration should be given to whether specific additional uses and works, proposed to be exempted from requiring development approval, should be identified in the Supplemental Provisions of LPS7 or a separate local planning policy of the Town.

#### LPP/02 Advertising Signs

This policy seeks to establish expectations and requirements for exempt and non-exempted advertisements within the Town. The policy seeks to guide good quality signage outcomes.

**Key findings and recommendations**

- Policy to be carried forward under LPS7.

**Percent for Art and Guidelines**

The Percent for Art Policy and associated Guidelines seek to guide good public art outcomes for town centres, commercial nodes, main streets, entry points, squares, foreshores and parks within the municipality.

The policy requires eligible development applications over the value of \$5,000,000 to set aside 1% of the total project cost for the development of public art, up to a maximum contribution of \$250,000.

The policy applies to development within the Town Centre, Commercial, Tourism, Mixed Business and Airport zones.

**Key findings and recommendations**

- Policy to be carried forward under LPS7.

**Airport Obstacle Height Limitations Map**

This policy relates to Clause 5.10.1 of TPS5 which seeks to prevent development encroaching within the height restriction areas indicated on the Obstacle Limitations Surfaces map.

**Key findings and recommendations**

- LPS7 will need to address Obstacle Limitations Surfaces and it is recommended this policy be carried forward under LPS7 with a corresponding clause in the scheme addressing this requirement.

**Draft Local Planning Policies**

The following local planning policies are in draft format at the time of writing this report and will support LPS7:

- LPP/03 Shipping/Sea Containers and Transportable Buildings
- LPP/04 Percent for Public Art
- Workforce Accommodation
- Social Impact Assessment
- Port Hedland Coastal Planning
- LPP/08 Port Hedland International Airport

### 5.3.2 Structure Plans / Development Plans

The following table provides a summary of the status of the structure plans that have been prepared within the Town of Port Hedland.

Table 6 – Summary of status of Structure Plans

Structure Plan Name	Adoption Status	Expiry	Planned Yield	Implementation Status	Precinct	Comment/Implications
Hamilton Road Development Plan	WAPC 2012	2025*	440 dwellings	Not commenced	South Hedland	Retain
Koombana Area Development Plan	WAPC 2012	2025*	216 dwellings	Not commenced	South Hedland	Retain
Area A – Lot 503 Forrest Circle Development Plan	Town 2011	2025*	365 dwellings	Completed for transient worker accommodation. Long-term full residential not commenced.	South Hedland	Retain
Stanley and Parker Street Development Plan	WAPC 2012	2025*	249 dwellings	In progress (>50%)	South Hedland	Normalise full
McGregor Street Development Plan (Lot 2)	WAPC 2012	2025*	313 dwellings	Not commenced	East End Urban Village	Retain
Clark Street Development Plan (Lot 4)	WAPC 2012	2025*	89 dwellings	In progress (>50%)	East End Urban Village	Normalise full
Pretty Pool Development Plan	WAPC 2008	2025*	174 dwellings	Complete (minus southern tip)	East End Urban Village	Normalise full
Wedgefield Industrial Estate Development Plan	WAPC 2011	2025*	Unknown	In progress (<50%)	Port and Industry	Retain
South Hedland Town Centre Development Plan	WAPC 2014	2025*	Not readily available	In progress (>50%)	South Hedland	Normalise portion
Boodarie Strategic Industrial Area Structure Plan	WAPC 2017	2027	3,743 ha industrial	Higher order strategic plan	Port and Industry	Retain
Western Edge Structure Plan	WAPC 2017	2027	1,600 dwellings 1,000sqm commercial NLA 1 primary school	Not commenced	South Hedland	Retain
Osprey Rural Structure Plan	WAPC 2019	2029	1,177 Dwellings	Not commenced	South Hedland	Retain

*\*Note: These Structure Plans were all approved prior to the Planning and Development (Local Planning Schemes) Regulations 2015 coming into effect. In accordance with Clause 28 of Schedule 2 of the Regulations, given that the Subdivision Guide Plan was approved prior to the introduction of the Regulations, the Subdivision Guide Plan is taken to have been approved on the date that the Town Planning Regulations 1967 were repealed and replaced by the current Regulations.*

In addition to the above, the following development areas within the East End Urban Village precinct require completion of structure planning prior to subdivision and development occurring:

- The Stables Precinct;
- Pretty Pool Stage 3; and
- Athol Street.

#### Key findings and recommendations

- It is evident that a number of areas with endorsed Structure Plans have not progressed through to subdivision and development due to a slowing down of the real estate market generally.
- Structure Plans to be prepared for the following precincts and are to be informed by the Town of Port Hedland Coastal Hazard Risk Management Adaptation Plan:
  - o The Stables Precinct (subject to rezoning);
  - o Wastewater Treatment Plant site (subject to rezoning);
  - o Pretty Pool Stage 3 (subject to rezoning); and
  - o Athol Street.

### 5.3.3 Local Development Plans

The following table provides a summary of the status of the Local Development Plans (LDP) that have been prepared within the Town.

Table 7 – Summary of Local Development Plans

LDP Name	Adoption Status	Expiry	Implementation Status	Precinct	Comment/ Implications
Stanley Street South Hedland	Town 2012	2025	In progress (>50%)	South Hedland	Retain
Osprey Drive Subdivision	Town 2013	2025	In progress (<50%). Acts as a quasi-structure plan	South Hedland	Retain
Trumpet Way Subdivision	Town 2013	2025	Not commenced	South Hedland	Retain
Various Lots - South Hedland	Town 2014	2025	Not commenced	South Hedland	Retain
Hamilton Road	Town 2015	2025	Not commenced	South Hedland	Retain

#### Key findings and recommendations

- The Local Development Plans will continue to be operational until 2025 and therefore will not require review as part of the local planning scheme review.

### 5.3.4 Design Guidelines

#### Pilbara Vernacular Handbook

The Pilbara Vernacular Handbook was prepared for LandCorp (now DevelopmentWA) to explore what high quality, contemporary design means for development in the Pilbara. The document establishes a range of 'Design Values' and 'Design Principles' that are relevant to informing a design response in the Pilbara. The document then identifies potential design responses to these values and principles.

##### Key findings and recommendations

- The document is a sound basis to refer to in preparing any future comprehensive planning (structure/precinct planning), subdivision, design guidelines or requirements relating to building design.

#### Kingsford Smith Business Park Design Guidelines

The Kingsford Smith Business Park Design Guidelines were prepared following the finalisation of the Port City Growth Plan to provide design guidance for development within the Kingsford Smith Business Park located within the airport precinct. The Guidelines have been prepared under Clause 5.1 of TPS5 and are intended to be implemented as a local planning policy. The Kingsford Business Park is divided into two parts, the first part intended to provide for bulky goods, light industry and warehouse uses and the second part intended to be set aside for transient workforce accommodation.

##### Key findings and recommendations

- Local Planning Strategy review to consider ultimate intended land use outcomes for this precinct which will inform any requirement to review these Design Guidelines.

#### South Hedland Town Centre Design Guidelines

The South Hedland Town Centre Design Guidelines were prepared following the State Government's Royalties for Regions commitment to providing funding assistance for the expansion and revitalisation of the South Hedland Town Centre. The Design Guidelines support implementation of the South Hedland Town Centre Development Plan and Port City Growth Plan through advocating for good design outcomes in the South Hedland Town Centre.

##### Key findings and recommendations

- Consider carrying these Design Guidelines forward under the new local planning framework.

#### Hedland Junction Wedgefield Industrial Estate Design Guidelines

These Design Guidelines apply to LandCorp's Transport Development Area forming a 72 ha portion of the 280 ha Wedgefield Industrial Estate. The Design Guidelines seek to facilitate a flexible, well-designed industrial estate that has an attractive appearance to Great Northern Highway and Pinga Street. The Design Guidelines require LandCorp to grant pre-approval to developments prior to a formal application being lodged with the Town of Port Hedland.

##### Key findings and recommendations

- These Design Guidelines are estate design guidelines administered by DevelopmentWA to achieve a high-quality aesthetic outcome for the Transport Development Area.

#### Wedgefield LIA2 Development Design Guidelines

These Design Guidelines have been structured to indicate a number of Mandatory Requirements for development as specified under TPS5 and a number of additional Mandatory Requirements that are to be imposed by LandCorp as developer of the estate. The document establishes a process whereby preliminary development plans are provided to LandCorp for review prior to formal lodgement of development applications with the Town.

##### Key findings and recommendations

- These Design Guidelines are estate design guidelines administered by LandCorp to achieve high quality design outcomes for the Wedgefield (LIA2) estate.

#### Hedland Junction Wedgefield Industrial Estate LIA3

These Design Guidelines provide guidance on the design, layout and management of development within LandCorp's Wedgefield Light Industrial Area 3 (LIA3) area. The document establishes a process whereby preliminary development plans are provided to LandCorp for review prior to formal lodgement of development applications with the Town.

**Key findings and recommendations**

- These Design Guidelines are estate design guidelines administered by LandCorp to achieve high quality design outcomes for the Wedgefield (LIA3) estate.

### 5.3.5 Heritage Inventory Review

The Town's current Heritage Inventory was reviewed in 2017 and was undertaken in two stages. The 2017 review recommends 77 place listings and one formal Heritage Area that comprises seven places. Fifteen new places were recommended to be added following the 2017 review, and these are listed below:

- Freemasons Masonic Lodge
- Port Hedland Police Station
- Town of Port Hedland Civic Centre
- Gratwick Aquatic Centre
- Marapikurrinya Park
- Port Hedland Yacht Club & RSL
- RSL War Memorial
- Goldsworthy Rear Lead
- TS Pilbara Building
- Dampier Salt
- Cape Thouin (first landfall)
- Turner River Water Scheme
- Goldsworthy townsite
- Shay Gap townsite
- Hillside Homestead complex

**Key findings and recommendations**

- Consider adoption of relevant heritage places as a Heritage List pursuant to the *Planning and Development (Local Planning Schemes) Regulations 2015*.

## 5.4 Studies

### 5.4.1 An Economic Study of Port Hedland Port (November 2017)

ACIL Allen Consulting was engaged by the Port Hedland Industries Council (PHIC) to conduct an economic study on the Port of Port Hedland to better understand the value of trade through the Port and to examine the potential economic and social benefits that might arise if further Port expansion was to occur.

Key findings of the study were:

The Contribution of the Port to Port Hedland:

- The Port accounted for \$1 billion in direct economic output in the Town of Port Hedland in 2015-16 (approximately 21% of the economic output of the town).
- The Port activity supported approximately 5,000 FTE jobs, which was just under half of the total employment in the region in 2015-16.

The Opportunity: a 700MT Port:

- ACIL Allen estimates that should the Port grow to its full potential over the coming 10 years, the Port will deliver a cumulative \$316.2 billion in iron ore export to the local, State and national economies.
- National employment is forecast to increase by 5,337 FTE jobs per annum over the coming 10 years, with a majority of jobs expected to be concentrated in WA.

**Key findings and recommendations**

- The Port will continue to be a key driver for economic growth and employment in not only the Pilbara but for the nation generally. If the Port reaches its full capacity, this will have significant flow on benefits for the economy.

### 5.4.2 Port Hedland Townsite Coastal Hazard Risk Management and Adaptation Plan

The Town commissioned the preparation of a CHRMAP for the Port Hedland townsite in accordance with the requirements of SPP2.6.

The hazard assessment identified coastal erosion and flooding as an immediate risk to assets in the following locations:

- Coastal residential properties in the West End (vulnerable to erosion in a possible and rare event)
- Public infrastructure (playgrounds) within the Cemetery Beach foreshore (vulnerable to erosion in a rare event)
- Public beaches, roads, and residential properties at the western end of Sutherland Street (vulnerable to erosion in the rare event)
- Public beaches, roads and residential properties on Barker Court, near Goode Street (vulnerable to erosion in the rare event)
- The existing Port Hedland town centre within the West End (vulnerable to coastal flooding in all events)

The CHRMAP recommends the following adaptation measures to respond to these identified coastal hazards:

Table 8 – Port Hedland CHRMAP adaptation recommendations

Planning Area	Immediate actions (2018 to 2030)	Current Planning (2018 up to 2060)	Long-Term planning (2060-2120)
West End (erosion)	Interim protection via sand replenishment and dune stabilisation or rock armour seawall		Managed retreat or further interim protection
Kingsmill Street (erosion)	Interim protection via rock groynes and sand replenishment or rock armour seawall		Managed retreat or further interim protection
Spoilbank (erosion)	Has not been assessed – undertake localised hazard and geotechnical investigations to understand localised risk of erosion		
Cemetery Beach (erosion)	Monitor		
Spinifex Hill/Cooke Point (erosion)	Interim protection via sand replenishment	Managed retreat or hard passive protection, depending on the outcomes of further community engagement, informed by detailed coastal processes assessment	
East End (erosion)	Interim protection via sand replenishment	Managed retreat or hard passive protection, depending on the outcomes of further community engagement, informed by detailed coastal processes assessment	
Pretty Pool (erosion)	Monitor and avoid new development in long-term hazard area		
West Townsite (inundation)	Accommodate		Managed retreat and/or further accommodation
East Townsite (inundation)	Monitor	Interim protection and accommodation	

**Key findings and recommendations**

- Consider incorporating a Coastal Hazard Special Control Area within Local Planning Scheme No. 7 to establish requirements for land identified as being prone to coastal hazards within the planning horizon.
- It is noted that urban development zones in the East End are either in, or situated immediately next to, known floodways. Development of these areas will require significant fill, but the quantum of fill is not known or stated in this report.
- The report makes reference to major infrastructure being located within existing areas of inundation from storm and / or sea surge; however, the commentary on how to protect these assets is limited.
- The West End is shown to have significant issues with inundation, with a large area at risk of having inundation issues in 1 in 1-year events. The report states that a detailed stormwater drainage assessment is required as “protection against inundation is not considered viable” therefore, the key item is for management of the issue rather than resolution. A principal concern appears to be lack of direct drainage connection to the ocean.
- Section 4-10 shows the inundation mapping from the Shared Land Information Platform (SLIP) which confirms that the proposed urban expansion areas in the east end of Port Hedland have almost certain (1 in 1-year) issues with inundation.
- The level of imported fill required to ensure future urban development lots have a 300mm clearance to the 1 in 100-year event is not clear and cost and availability may be prohibitive to development.

### 5.4.3 Consolidated Foreshore Redevelopment Masterplan (2013)

The Consolidated Foreshore Redevelopment Masterplan was commissioned by the Town to articulate an overarching vision for the Port Hedland foreshore which is reflective of community aspirations and which provides a cohesive approach to numerous proposed development and activities along the foreshore.

The Masterplan recognises and responds to a range of considerations, including but not limited to, coastal vulnerability, sediment movement, dust, turtle hatching areas, vegetation and access. The Masterplan identifies opportunities and directions for five precinct areas within the foreshore, being; Old Town (West End), Spoil Bank (West End), Cemetery Beach and Civic Node, Cooke Point to Goode Street (East end) and Pretty Pool to Four Mile Creek (East End).

The Masterplan identifies a range of improvements to respond to opportunities identified along the foreshore, including improvements to access for all users, areas for viewing platforms and beach shelters, event space, tourism development opportunities and responses to major development projects, such as the Spoilbank Marina.

The Port Hedland Consolidated Foreshore Redevelopment Masterplan (UDLA, 2013) is deficient in its consideration and response to relevant State planning policy framework (e.g. SPP 2.6 and Guidelines) – and has been superseded by the Town's CHRMAP (2018) and the Coastal Reserves Management Plan (under preparation).

#### Key findings and recommendations

- It is noted that this document was prepared prior to the commissioning of a CHRMAP for the Port Hedland coastline and therefore does not adequately consider coastal processes or risks. This document will ultimately be superseded by a new Coastal Foreshore Management Plan to be completed by the Town in due course.

### 5.4.4 Community Consultation and Needs Analysis (2019)

The Community Consultation and Needs Analysis (CCNA) was commissioned by the Town to inform the preparation of master plans for the McGregor Street Sporting Precinct, JD Hardie Centre and South Hedland Integrated Sports Complex (SHISC).

Key guiding principles that the CCNA identifies to inform the preparation of sporting facilities master plans include:

- Financially sustainable;
- Collocation, shared use, multipurpose designs;
- Maximised utilisation;
- Contemporary;
- Accessibility; and
- Sustainability.

#### Key findings and recommendations

- That the JD Hardie Centre be identified as the Community Youth and Learning Hub within the Town and should accommodate a range of new youth-focused recreation facilities and activities.
- That the South Hedland Sporting Precinct be identified as the Regional level Sporting Precinct in the Town and a range of new facilities be considered in the master planning for the site.
- That the master planning for the McGregor Street Sporting Precinct include a range of new regional level sporting facilities.

### 5.4.5 Public Open Space Strategy (2019)

The Town's Public Open Space Strategy (POS Strategy) was adopted at the ordinary Council meeting held in August 2019 and provides a current strategy for the distribution of public open space and recreation facilities within the district. The POS Strategy establishes a hierarchical approach to the distribution and provision of open space and recreation facilities to meet the range of recreational needs of the community.

The POS Strategy makes the following recommendations per locality (West End excluded):

Table 9: POS Strategy recommendations

Locality	Recommendation
<b>Port Hedland</b>	
<b>Spinifex Hill</b>	<ul style="list-style-type: none"> <li>Monitor the foreshore for any evidence of coastal erosion and take action to protect the reserves.</li> <li>Develop McGregor Street Master Plan for regional sporting facilities.</li> </ul>
<b>Cooke Point</b>	<ul style="list-style-type: none"> <li>Continue to monitor the foreshore for any evidence of coastal erosion and take action to protect the reserves.</li> <li>Create path connections with upgraded amenities along foreshore to complement redevelopment of urban areas.</li> </ul>
<b>Pretty Pool</b>	<ul style="list-style-type: none"> <li>Build on Pretty Pool's swimming suitability and include the additional facilities to encourage extended use for tourists.</li> <li>Reserve Dowding Way park area as 'Parks and Recreation' under a new Local Planning Scheme No. 7.</li> <li>Consider cash-in-lieu payments for provision of POS in new subdivision to create a new foreshore park or enhance Pretty Pool Park.</li> </ul>
<b>South Hedland</b>	
<b>Lawson</b>	<ul style="list-style-type: none"> <li>Require the provision of local open space for new residential subdivisions.</li> </ul>
<b>Cassia</b>	<ul style="list-style-type: none"> <li>Develop the 'Parks and Recreation' reserve adjacent to Murdoch Drive into Neighbourhood Open Space. Should be of high quality as it forms part of a major eastern entrance to South Hedland and the town centre.</li> </ul>
<b>Shellborough</b>	<ul style="list-style-type: none"> <li>Consolidate multiple lots that form Limestone Park into single reserve for 'Parks and Recreation' in new Local Planning Scheme No. 7.</li> </ul>
<b>Walnut Grove</b>	<ul style="list-style-type: none"> <li>Develop land to the west and east of JD Hardie Centre into Local Open Space.</li> <li>Include local open space as part of the Kennedy Street Structure Plan.</li> <li>Amalgamate Marquee Park Splash and Play into single Crown Reserve for Recreation. Develop management order to formalise the Town's responsibilities of the space.</li> </ul>
<b>Koombana</b>	<ul style="list-style-type: none"> <li>New POS should be appropriately scaled and located to meet the requirements of walkable catchments.</li> </ul>
<b>South Hedland West</b>	<ul style="list-style-type: none"> <li>New residential subdivision should ensure Local and Neighbourhood Open Space areas.</li> <li>Implement the South Hedland Integrated Sporting Precinct Masterplan.</li> </ul>
<b>Key findings and recommendations</b>	
<ul style="list-style-type: none"> <li>Incorporate the recommendations of the POS Strategy into the new local planning strategy as applicable.</li> <li>Undertake a review of the POS Strategy to incorporate a strategy relating to the provision of pedestrian paths and cycleways.</li> </ul>	

### 5.4.6 McGregor Street Master Plan

The McGregor Street Master Plan was endorsed at the ordinary meeting of Council held in August 2019. The Master Plan depicts the retention of the Port Hedland Turf Club race track and proposes a diverse range of additional recreation facilities to the east of the race track. In summary, these future facilities include:

- Sports field facilities, including new sporting ovals and running track;
- Pavilions, car parking, family BBQ facilities and cricket nets;
- Tennis and hockey club room upgrade, and fields with shaded viewing areas;
- Childcare facilities;
- Re-appropriated club rooms; and
- BMX pump track and shelter extension.

The south westerly portion of the Master Plan has been identified for future commercial development as it is located adjacent the Port Hedland Boulevard Shopping Centre.

It is noted that the Port City Growth Plan identified the McGregor Street Turf Club as future development, including Neighbourhood Centre at the south-western corner of the site with the remainder of the site being developed for residential purposes. The new LPS and Scheme will need to reflect the latest intent to develop the McGregor Street site as an integrated recreation precinct to provide regional sporting facilities.

#### Key findings and recommendations

- The new local planning strategy and Scheme will need to recognise the McGregor Street precinct as providing regional sporting and recreation facilities.

### 5.4.7 South Hedland Integrated Sports Complex Master Plan

The South Hedland Integrated Sports Complex (SHISC) Master Plan was endorsed at the ordinary meeting of Council held in August 2019. The SHISC Master Plan comprises the following broad components:

- New northern extension and internal modification to the existing Wanangkura Stadium;
  - Retention of the existing Kevin Scott Oval;
  - New large multi-use pavilion building;
  - Two new small multi-use pavilion buildings;
  - Shaded grass mound spectator area;
  - New family area / BBQ Park;
  - Retention and upgrade to existing playground;
  - New small playground;
  - New adventure playground;
  - New dog park;
  - New multi-purpose football/cricket and rectangular sports oval;
  - Existing baseball diamond upgraded;
  - New baseball diamond – permanent;
  - New softball field – permanent;
  - New flexible softball / rectangular sports field;
  - New shared-use running track; and
  - New cricket practice nets.
- The SHISC precinct will provide regional level sporting and recreation facilities for the South Hedland community. The SHISC is recognised as a multi-purpose regional centre within the existing Port City Growth Plan.

#### Key findings and recommendations

- The new local planning strategy to recognise the SHISC precinct as a regional recreation facility and the new Local Planning Scheme No. 7 to reserve the site for 'Parks and Recreation'.

### 5.4.8 JD Hardie Master Plan

The JD Hardie Master Plan has been prepared to facilitate future upgrades at the JD Hardie Centre site on Cottier Drive in South Hedland. The planned upgrade works have a focus on youth recreation activities and includes the following:

- Junior BMX track and separate pump track;
- Outdoor games area;
- Skate zone;
- Mini golf;
- Shaded basketball courts;
- Library;
- Childcare centre; and
- Covered café alfresco area.

#### Key findings and recommendations

- The recreation use of the JD Hardie Centre site should be reflected in the new local planning strategy and Scheme as a Community Use or POS reserve.

### 5.4.9 Arts and Culture Strategy 2019-2022

The Arts and Culture Strategy 2019-2022 has been developed to define the role the Town and community organisations can play in fostering grassroots art and cultural programs.

The Town has identified the following roles it can play to promote art and culture:

1. Leader – developing and implementing initiatives for the community.
2. Advocate – championing arts and culture initiatives.
3. Promoter – sharing and exemplifying the good things that can, and are, happening.
4. Enabler – providing support to kick start new initiatives through training, resources, funding or facilitating community action.
5. Convener – bringing together the right people with the passion, energy and resources to achieve joint outcomes.

The strategy seeks to maximise use of existing infrastructure by holding events but also acknowledges opportunities to fund temporary or permanent infrastructure in key locations to hold events.

#### Key findings and recommendations

- No specific considerations for the local planning strategy and scheme review.

### 5.4.10 Community Safety Plan 2019-2021 (draft)

The purpose of the Town's Community Safety Plan 2019-2021 is to set out actions that Council can undertake in partnership with governance groups to improve safety in the community.

#### Key findings and recommendations

Key actions of the Community Safety Plan that require further spatial and/or land use considerations as part of a local planning strategy are set out below:

- o Invoke a sense of identity and place in the community through encouraging community and visitor participation in the cultural history of Port Hedland in meaningful and relevant ways.

#### Examples:

- Advocacy to strengthen cultural tourism.
- Incorporating Aboriginal language in public spaces and facilities.
- Cultural awareness training for community.
- o Identify 3 'hot spot' locations and pilot Crime Prevention through Environmental Design (CPTED) assessments for South Hedland CBD (encompassing the Shopping Centre, Skate Park, Aquatic Centre, small businesses outlets and liquor stores).
- o Develop and implement CPTED principles for internal Town planning and project management processes, including CPTED training for property, business and community stakeholders.
- o Investigate and identify an appropriate short-term accommodation strategy and facilities; specifically, addressing and identifying transiency and homelessness needs and issues.
- o Support and facilitate the development of a safe space for men i.e. Men's Shed or Breathing Space House.
- o Empower our first nation's people in Hedland to create a safe healing plan and space. This will also identify how the community can participate in trauma-informed practice in all aspects of cultural engagement and social reinvestment.

### 5.4.11 South Hedland Flood Study (2010)

South Hedland is noted as generally being flat with topography ranging between RL 13.0m and 16.0m AHD. The document showed a series of pictures of open drains and culverts with large amounts of trapped sedimentation decreasing the capacity of the existing drainage system.

The drainage strategy (Section 3) states that a modified approach to water sensitive urban design (WSUD) is required in the north-west but the document does not go into further detail on what that modified approach could be.

The document goes into specific detail on the requirements of the minor and major drainage systems with kerbed roadways forming the initial conveyance system, then directing overland drainage into roadside swales and downstream into existing open drains and catchments.

#### Key findings and recommendations

Section 4.5 discusses anecdotally, proposals to close a number of existing drainage corridors in South Hedland in the following locations:

- Between Brodie Crescent and Greene Place
- From Acacia Way and Boronia Close through to Huxtable Crescent
- From Somerset Crescent through to Lawson Street
- From Eucla Close to Delamere Street

The report goes onto state that any such proposals to close drainage corridors should only be considered after detailed studies have been completed that confirm that there are no negative impacts on the integrity of the drainage system through the closure of such assets.

Section 6.2 provides details on drainage systems to be upgraded in the following locations:

- Parker Street and Kennedy Street
- Traine Crescent and Edkins Place
- Brodie Crescent and Draper Place
- Acacia Way
- Gascoyne Court
- Egret Crescent / Spoonbill Crescent
- Steamer Avenue
- Bottlebrush Crescent

### 5.4.12 Port Hedland Air Quality Health Risk Assessment for Particulate Matter (2016)

The Port Hedland Dust Management Taskforce (the Taskforce) was convened in response to the EPA raising concern regarding regular exceedance of the National Environmental Protection Measure for dust concentrations permitted for residential development in the West End precinct, defined between McKay and Taplin Streets. The Taskforce was chaired by the former Department of State Development and comprised representatives from relevant local government departments (including planning), industry and the local government. The Taskforce commissioned an independent health risk assessment of air quality in Port Hedland.

Additionally, the Taskforce prepared the 'Port Hedland Air Quality and Noise Management Plan', the recommendations of which were adopted by Cabinet in January 2010. The plan provided a broad-based implementation strategy and governance framework to manage the potential health risks posed by dust levels in the 'West End'.

In relation to land use planning, the Plan recommended a precautionary approach that residential development should occur predominantly in the eastern areas of Port Hedland. Regarding existing residential areas in the 'West End', Amendment 22 (gazetted on 27 April 2012) introduced provisions into the Town's Local Planning Scheme No. 5 to promote housing redevelopment that discouraged long-term residency by those more at risk from exposure to dust.

In 2016, the Taskforce considered the findings of the Department of Health's 2016 report: *The Port Hedland Air Quality Health Risk Assessment for Particulate Matter* and provided recommendations to the Government through the Port Hedland Dust Management Taskforce Report to Government (Taskforce Report).

After considering the Taskforce Report and submissions received, on 15 October 2018 the Government decided that a whole-of-government approach was required to deal with this issue, including adopting land use planning recommendations aimed at prohibiting sensitive land uses and restricting population growth in the West End of Port Hedland. To give effect to this, the Government requested the Western

Australian Planning Commission (WAPC) to consider preparing an Improvement Plan and Improvement Scheme designed to achieve the land use outcomes of the Taskforce Report.

On 13 June 2019, following consultation with the Town, the WAPC certified Improvement Plan No. 50. It was accepted by the Minister for Planning on 4 July 2019, subsequently accepted by the Governor’s deputy and gazetted on 30 July 2019.

Improvement Plan No. 50 provides the strategic framework to guide the proposed preparation of an Improvement Scheme over the West End of Port Hedland aimed at implementing the Government’s response to the Taskforce Report.

On 21 August 2019, the WAPC resolved to prepare an Improvement Scheme to implement the objectives of Improvement Plan No. 50 and the Government’s response to the Taskforce Report.

**Key findings and recommendations**

- The West End Improvement Scheme will establish specific land use planning and development controls for the West End Precinct in response to this report. Consequently, the West End Precinct will be excluded from the Town’s local planning scheme as a result of the preparation of a separate Improvement Scheme.

**5.4.13 Port Hedland Waterfront Place Plan (2014)**

Village Well were engaged by the Town to prepare a Place Plan for Port Hedland’s urban foreshore. The aim of the document is to articulate a shared place vision for the Waterfront based on place research and outcomes of engagement with the community. Key aspirations identified for the Waterfront following consultation were:

- A social and recreational destination for everyone, not an exclusive place;
- A place to appreciate the much-loved Port Hedland coast – the ‘theatre of the waterfront’;
- A place to relax and enjoy the food life (casual with a touch of luxury);
- Green, shady and inviting public realm, near the centre of town;
- A fully functioning marina with quality facilities for small fishing and leisure boats as well as large yachts; and

- A balanced, moderately scaled development, that provides community and environmental benefits as well as commercial success.

Primary recommendations for the Waterfront include:

- A new wharf in the Marina;
- Marapikurrinya Visitor Centre and markets in the Dock Square;
- A jetty, atmospheric lighting, an arbor and water art along the promenade and pathways;
- A bespoke children’s park with an industrial / maritime theme, wildlife habitat and Marapikurrinya drinking fountains in the recreational areas;
- North West Festival and a new Indigenous Music Meet-up event in the Event Green;
- An eco-tourism operator and a bush tucker garden in the campground; and
- A focus on seafarers and locally made gifts in the Village Hub.

This document is being used by the Town as a baseline visioning document to inform the design around the new Spoilbank Marina project.

**Key findings and recommendations**

- Local planning strategy to recommend more detailed place planning and design of the Waterfront Precinct to deliver key recommendations of this document.

**5.4.14 Transient Workforce Accommodation Strategy (2014)**

The Town’s Transient Workforce Accommodation Strategy (TWAS) seeks to manage the location and development of future Transient Workforce Accommodation (TWA) within the Scheme Area. The document encourages the location of TWA’s on:

- land located at the PHIA; and
- land located on the periphery of South Hedland.

The TWAS also requires TWA proposals to demonstrate a community benefit through either augmentation of service infrastructure, a monetary contribution towards community facilities or through provision of permanent community buildings and infrastructure. The recommendations of the TWAS were never incorporated into TPS5 and were never implemented.

The Town is currently developing a local planning policy on TWA's to replace the existing TWAS.

### 5.4.15 Trails Masterplan (2013)

The Town commissioned a Trails Masterplan to facilitate the creation of a network of nature and culturally-based recreational trails within the precincts of Port Hedland, South Hedland and Finucane Island.

The document identifies a number of trails' loops in each of the three precincts with a view to fostering a greater level of cultural, ecological and historical appreciation of the Port Hedland terrain.

#### Key findings and recommendations

- Several options were proposed for off-road vehicle use, yet the Town of Port Hedland has only two locations where off-road vehicles are allowed (based on information accessed on the Town's website in August 2019). These locations are Spoilbank in Port Hedland and Deep-Water Reserve in South Hedland. The information on the website explicitly states that vehicles cannot approach these locations but must be brought on a trailer to the location.
- Staging plan for implementation is brief and general in nature. There is no comprehensive action plan or timeline for implementation.
- There is no confirmation that any portion of the Master Plan was implemented or considered for implementation. None of the proposed trails are included on Town's website or any other bushwalking site.
- It is unclear how "accessible" paths are to be actually accessed. Plans of trails with mixed grading do not show the extent or location of each grade (i.e. which portion of the proposed path is accessible, etc).
- The new local planning strategy should consider strategies and actions to pursue completion of the identified loop trails and to integrate these loops with other identified path and open space networks (i.e. Town of Port Hedland Parks and Paths Strategy).

### 5.4.16 Disability Access Improvement Plan (2013-17)

The Disability Access Improvement Plan (2013-17) establishes a framework which enables the Town to advocate for improved access and inclusion at events held by others at Town facilities and venues. Key recommendations of the plan include:

- When the Town or its contractors provide, or offer, transportation, this transport will be accessible.
- When building new facilities or refurbishing existing facilities, access will be ensured and enhancement of access will be explored.
- The Town will provide meaningful information and promote the accessibility of our facilities and venues.
- The Town will investigate and improve access in play areas and in our parks and gardens.
- When providing information across social media platforms the Town will use best practice to ensure that the information is as accessible as possible.

#### Key findings and recommendations

- The plan identifies accessible public buildings, yet it makes no mention of the movement network which would enable residents with reduced mobility (or other senses) to get to the buildings.
- Consideration should be given to the provision of public maps showing accessible parking and other accessible venues within the Town.

### 5.4.17 Pilbara Cattle Holding Yard Feasibility Assessment

The Pilbara Cattle Holding Yard Feasibility Assessment was commissioned by the Pilbara Development Commission into the expansion of existing or development of new cattle holding yard infrastructure to support the Pilbara's agricultural industry.

The assessment included a site selection process which identifies two sites that represent optimal locations for a holding yard. These included the existing South Hedland holding yards and a new facility at Pippingarra Station.

The analysis concluded that from a public perspective, the investment in re-establishing the existing South Hedland holding yards would present substantial benefits to the Western Australian pastoral industry.

#### Key findings and recommendations

- The document is focused on the access requirements and convenience for this particular use and it does not consider traffic impact on the network. Given that volumes of 40,000 – 80,000 head per year are discussed and that approximately 144 cows can be accommodated in an A-triple road train, this use will make a significant traffic impact on the network.
- The revised local planning strategy should recognise the potential for a cattle holding yard to be located at the existing South Hedland site and potential for a new facility at Yandeyarra.
- Local Planning Scheme No. 7 should contain flexibility for a cattle holding yard to be permitted at these locations.

### 5.4.18 Port Hedland Growth Readiness Investigations

The Port Hedland Growth Readiness Investigations report was prepared to evaluate the ability for the Town to respond to future growth pressures associated with a new investment cycle driven both by resources and economic diversification.

This report included future population modelling for the Town to better understand future demand for land associated with housing, commercial/retail, industrial, short-stay and transient workforce accommodation. The population modelling adopted for this report was based on the average historical annual growth rate of the population between 2001 and 2018, which was calculated at 0.9% per annum. Based on this growth rate, the report projected a population of 18,500 people by 2041. This is considered a reasonable basis for future population growth within the Town and was subsequently adopted as the conservative baseline population growth scenario to inform the preparation of the Strategy.

The different demands of residential, commercial/retail, industrial, short-stay and TWA have been considered in relation to the available and planned supply of land in the area, including infrastructure capacity as set out within DPLH's Regional Land Supply Assessment (2019). The LPS utilises the same, conservative population forecasts as included within the Growth Readiness Investigations, with demand profiles therefore consistent.

#### Key findings and recommendations

- The report indicates that there is sufficient land (as opposed to floor area) available for dwellings, commercial/retail and industrial land through to 2041.
- Supply will likely be exceeded in the near future for short-stay and transient workforce accommodation, especially if any new major infrastructure projects are announced near the Port.
- There are various factors which impact the Town's capacity to respond to new intensive growth despite land being appropriately zoned, including investment risks in property and business due to a highly volatile market, land tenure matters and unviable development controls.
- The report recommends that land use planning should ensure development controls are limited, to provide flexibility of use and lower construction costs.

### 5.4.19 5.4.19 Workforce Accommodation Facilities' Position Statement

Workforce accommodation approved pursuant to *State Agreement Acts and the Mining Act 1978* are exempt to the extent that the provisions of those Acts override the Planning and Development Act 2005 and the local planning scheme. In February 2020 Council adopted a workforce accommodation facilities' position statement. The statement provides the rationale behind the Town's policy position in relation to the approval and management of such facilities.

The Town recognises that workforce accommodation is a legitimate means of providing accommodation to respond to short-term demands such as construction workforces, periodic maintenance shutdown workforces, and for long distance freight transport workforces, and in this context are an invaluable accommodation resource for industry.

#### Key findings and recommendations

- Unless exceptional circumstances apply and depending on the distance from Port Hedland, the Town supports permanent residential settlement for operational workforces that enhance community integration, growth and sustainability and mental health outcomes for industry workers.
- Where operational workforce accommodation is used, industry should give due regard to the development of plans to transition workers to residential accommodation options.
- The Town of Port Hedland supports workforce accommodation for projects located within reasonable proximity of Port Hedland, being collocated within the Town in accordance with the zoning requirements of the Scheme.
- Remote workforce accommodation should be of a requisite standard and amenity to support the health and wellbeing of workers.



# 6. Local Profile

## 6.1 Community Profile

### 6.1.1 Population and Demography

Port Hedland’s estimated resident population increased by an average 0.9% per annum over the past 10 years, to reach approximately 14,975 people in 2018. Historical population growth has demonstrated great volatility, typical of regional mining communities, where population growth is strongly linked with economic outcomes and cycles. Population growth was strongest during the mining boom between 2006 and 2013 at 1.8% per annum (on average); after the mining boom (2013–2018) negative growth has been recorded (1.3% per annum on average).

Port Hedland’s resident population is projected to increase by 2.5% annually (on average) for the next 20 years, supported by the anticipated boom in construction, including the capital works program to expand the Port (2-year project), BHP South Flank mine in Pilbara, FMG Port Hedland expansion, Rio Tinto expansion and new mines (Centre Point Finance, 2019).

Due to concerns regarding the impact of high dust levels from industrial, natural and anthropogenic sources in Port Hedland, the Western Australian Government has revealed an aim to cap the resident population (in dust affected areas) (Department of Jobs, Tourism, Science and Innovation, 2017). This will be conducted through residential property management. Therefore, this may result in overestimation of the current population and dwellings projections.

There is also potential for a ban on 100% FIFO employed mining operations in Western Australia, if the Government is to follow Queensland’s lead (Mining Safe to Work, 2019). This may lead to underestimation of the current population growth and dwellings projections.

These considerations (and other current and potential future regulations, developments and activities) have not been incorporated into the population and dwellings projections in this chapter, and hence should be viewed with caution.

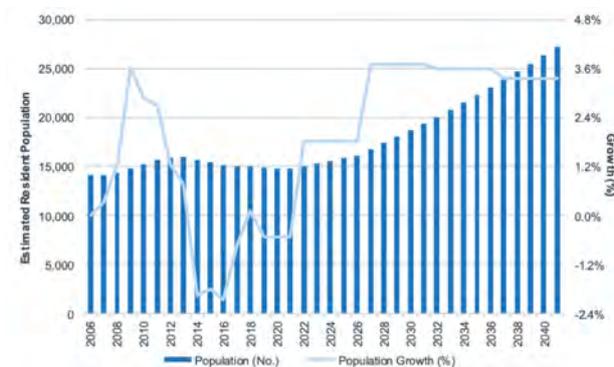


Figure 3. Historical and Projected Resident Population, Port Hedland, 2006 to 2040. Source: Profile.ID (2016a), Profile.ID (2019).

The economic activity in Port Hedland has influenced population growth and the local demographic composition. Port Hedland has a higher concentration of males (57.6%) compared to females, particularly in the 25 to 39 years age cohort, likely due to the trades-related nature of work within the prominent industries of mining and construction. From 2011 to 2016, the proportion of males in the Port Hedland population decreased by 4.3%, whilst the proportion of females increased. The increasing portion of females and growth in the number of youth aged 0 to 19 years (2.2% in total between 2011 and 2016) reflects the migration of families to the region over this period.

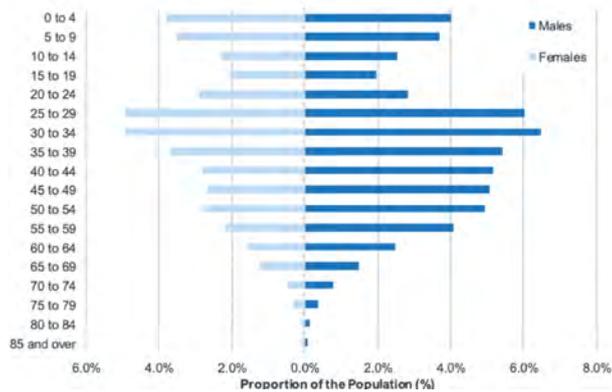


Figure 4. Age and gender Distribution, Port Hedland, 2016. Source: Profile.ID (2016c).

The Port Hedland population is relatively culturally diverse with almost a quarter (20.4%) of the population comprising those born overseas, an increase of 2.9% since 2011. Most were born in English speaking countries; however, modest growth was evident in the Filipino representation (1.5% between 2011 and 2016). Port Hedland’s cultural diversity is further enhanced by the Indigenous population, representing approximately 16.0% of the total in 2016.

The number of educated people in Port Hedland is rising, with an increase in Year 12 completions of 5.2% between 2011 and 2016, to reach 41.4% in 2016. This shift is consistent with a broader increase in educational attainment across Australia’s regions. This is further evidenced by attainment of non-school qualifications, which increased for all qualification levels over the period. Vocational qualifications represented the largest proportion of non-school qualifications (34.0%) in 2016, likely reflecting the higher presence of industries such as construction and mining, which tend to require trades-related skills rather than university level education.

This analysis is supported by additional data provided at Appendix B.

**Comparative Analysis with Karratha and Regional WA**

Port Hedland and neighbour, Karratha, have experienced similar volatility in population growth in recent years. For both regions, population growth has mirrored the volatility in the local economy which has been driven by fluctuations in the resources sector. Since 2001, Port Hedland’s population growth has recorded lower volatility by comparison with Karratha, due to continued economic expansion of Port Hedland’s economy in the 2014-15 to 2016-17

period, which was not replicated in Karratha. However, both Port Hedland and Karratha have recorded greater fluctuations in population growth by comparison with Regional WA which has a larger population and more diverse economic base.

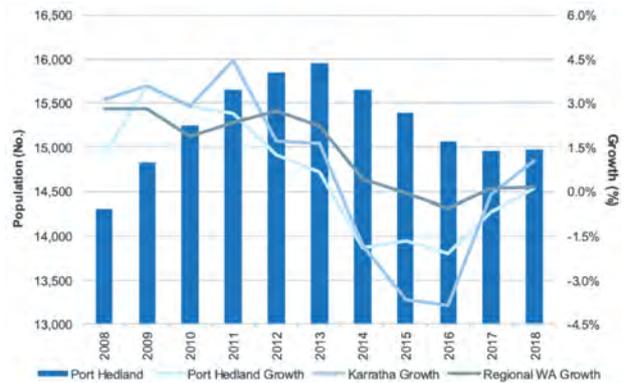


Figure 5. Historical Population, Comparison Regions, 2008 to 2018. Source: ABS (2019).

The labour intensive (trades-related) nature of work in Regional WA is a large determinant of demographic characteristics, as these occupations tend to employ young males (Labour market Information Portal, 2018). Port Hedland revealed a higher concentration of males (53.7%) compared to females in 2018, in line with Karratha (55.1%); however, slightly less than Regional WA (50.7%). The 25 to 39 years age cohort was the most prominent in Port Hedland (31.4%). This is consistent with Karratha (31.7%); however, Regional WA’s population is more evenly distributed in its age structure.

Almost a quarter (24.5%) of Port Hedland’s population comprised those born overseas. This is slightly higher than Karratha (23.5%) and Regional WA (21.1%). The Malay and Tagalog speaking populations were the largest foreign speaking representations in Port Hedland, however, both Karratha and Regional WA recorded lower representations of these groups. Port Hedland’s Indigenous population represented approximately 19.1% of the population in 2016, higher than in Karratha (14.5%) and Regional WA (8.1%).

There has been an overall trend of increasing educational attainment across Port Hedland, the comparison regions, and more broadly across regions in Australia (Australian Institute of Health and Welfare, 2018). Port Hedland revealed a higher proportion of Year

12 completions than Regional WA in 2016 (by 6.6%); however, fell slightly behind Karratha (by 2.4%). Certificates were the most common form of non-school qualification in Port Hedland in 2016 (28.8%). This was similar in Karratha (28.2%), however, slightly lower in Regional WA.

This comparative analysis is supported by additional data provided at Appendix C – Comparative Profile Details.

## 6.1.2 Dwellings and Household Demand

Port Hedland had approximately 5,470 households in 2016. Of these, families (couples with children) were the most prevalent household type in Port Hedland in 2016, comprising 28.2% of all households. Lone person households recorded strong growth (3.3%) between 2011 and 2016, potentially influenced by the number of working age males (particularly 30 to 34 years age cohort) over this period. The number of households are expected to increase by approximately 2,630 (2.3% annually) between 2016 and 2041.

Table 10: Household/ Family Composition, Port Hedland. Source: Profile.ID (2016)

Household/ Family Type	2011	2016
Couples with Children	26.8%	28.2%
Couples Without Children	19.7%	21.2%
One Parent Families	5.9%	6.5%
Other Families	1.3%	0.9%
Group Household	3.9%	2.8%
Lone Person	14.3%	17.6%
Visitor Only Households	15.2%	11.8%
Other Not Classifiable	12.9%	11.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Household incomes in Port Hedland are reflective of the significant economic activity in the mining industry, with average household income reported at \$2,793 per week in 2016 (equating to \$145,236 per annum). This is a positive sign for consumption, investment and the health of the regional economy.

Lowering house prices and rents were recorded in Port Hedland between 2014 and 2018, with a reduction of 26.1% in house price and 24.9% in rents. Lower housing and rental prices combined with high household incomes suggest improved housing affordability in the region. Similar to many regional communities, this was driven by the reduced demand from population as

population growth was negative over this period. Negative population growth resulted from the end of the mining boom, as mines shifted from expansionary to production phases.

Port Hedland recorded approximately 7,667 dwellings in 2016, of which 67.9% were occupied. Occupancy rates are still recovering from the end of the mining boom, which instigated negative population growth (until 2018) and hence reduced dwelling demand. Low density (separate housing) dwellings are becoming increasingly prevalent, with 1,470 new separate houses between 2011 and 2016 (total growth of 5.9%). Similarly, dwellings are expected to increase by 4,630 (1.9% annually on average) and occupancy rates by 0.4% annually (on average), to reach 75.6% in 2041. Over the next 20 years, projected residential population growth is anticipated to drive increased demand and put pressure on the delivery of residential development areas.

Table 11: Historical and Projected Households, Port Hedland. Source: Profile.ID (2016)

Dwellings	Number	Occupancy Rate
2016	7,667	67.9%
2021	7,715	66.7%
2026	8,080	68.5%
2031	9,276	70.8%
2036	10,725	73.1%
2041	12,305	75.6%
<b>Avg. Ann. Growth</b>	1.9%	0.4%

The predominant dwelling structure within Port Hedland is a separate or traditional single house. The single house increased in its proportionate share of dwelling structure between 2011 and 2016, while medium density terrace, village or townhouses have decreased along with caravan and cabin-type living structures.

Table 12: Dwelling Structure, Port Hedland. Source: Profile.ID (2016).

Dwelling Structure	2011	2016
Separate house	62.9%	68.8%
Medium density	22.3%	21.8%
High density	2.3%	3.2%
Caravans, cabin, houseboat	8.7%	4.5%
Other	2.9%	0.9%
Dwelling Structure	0.9%	0.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Notes: High density dwellings consist of flats, units or apartments. Medium density dwellings consist of semi-detached, row or terrace houses, townhouses, etc.

Separate to the above analysis, a large number of fly-in, fly-out (FIFO) workers (usually short term) are accommodated in TWA facilities. This is evidenced by the large supply of TWA facilities, including the Gateway Village, extensive supply of motels and The Landing.

This analysis is supported by additional data provided at Appendix B - Socio-Economic Profile Details.

**Comparative Analysis with Karratha and Regional WA**

Whilst Port Hedland’s housing supply is primarily comprises separate houses, it has a more diverse housing supply than Karratha and broader Regional WA which record proportions of the housing stock as separate houses of approximately 73.1% and 82.9%, respectively.

One family households were consistently the most prevalent household type across Port Hedland and the comparison regions. However, both Port Hedland and Karratha recorded lower prevalence of lone person households and higher proportions of group households than Regional WA, likely reflecting the accommodation options for mining workers in these regions.

Corresponding to the higher average household incomes in Port Hedland and Karratha, housing stress is less problematic in these communities than for Regional WA. Rental stress in particular, was considerably lower in 2016 in Port Hedland (5.9% of rented dwellings) and Karratha (6.3%) compared to Regional WA (23.5%).

This comparative analysis is supported by additional data provided at Appendix C - Comparative Profile Details.

**6.2 Economic Profile**

**6.2.1 Economy**

In 2018, the Port Hedland economy recorded Gross Regional Product of approximately \$3.7 billion. Port Hedland’s economic growth is heavily influenced by fluctuations in mining and construction industry activity. Between 2001 and 2018, the economy recorded average annual growth of approximately 6.4%; however, annual

growth over this time period has been volatile, with a peak of 24.2% in 2012 and a trough of -6.1% growth in 2016.

Key industries for Port Hedland’s economy in 2018 were:

1. Mining: Contributed \$1,218 million (70.0%) to industry value add in 2017-18.
2. Transport, Postal and Warehousing: Contributed \$285 million (8.0%) to industry value add in 2017-18.
3. Construction: Contributed \$183 million (5.1%) to industry value add in 2017-18.

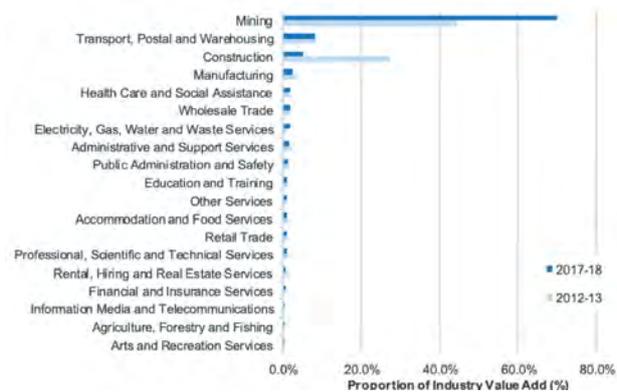


Figure 6. Proportion of Industry Value Add, Port Hedland, 2012-13 and 2017-18. Source: Economy.ID (2018b).

Port Hedland’s resources sector has experienced a shift away from construction activity, which was strong in 2012-13, for production activity. This is evidenced by mining activity recording 25.5% growth since 2012-13, whilst construction activity recorded a 21.9% decline over the same period.

The industrial composition of the economy is reflected in the occupational breakdown of workers. Technicians and trades workers were the most prevalent occupation held in 2016 (26.9%), followed by machinery operators and drivers (17.5%); both occupations driven by mining and construction activity.

In 2018, Port Hedland recorded an unemployment rate of 5.0%, higher than its average of 4.4% over the 2010 to 2018 period. The unemployment rate in Port Hedland has fluctuated significantly, from a low of 2.7% in 2012 to a high of 5.5% in 2015.

The retail sector in Port Hedland is facing an undersupply in the provision of cafes, restaurants/ takeaways, groceries and shop retail offering, which needs to be corrected to accommodate the projected population

growth over the next two decades (Town of Port Hedland, 2012). Currently, South Hedland Square and Port Hedland Boulevard are the major retail centres servicing the population, holding 63 shops in total.

There are a number of developments proposed for Port Hedland which may support economic growth in the coming years. The following is a list of identified known developments that may impact on the Port Hedland economy.

Table 13. Major Projects, Port Hedland. Source: Mid-West Development Commission (2019), Landcorp (2019). Fortescue (2019).

Project	Cost	Status	Details
Low density residential sites (two) at Pretty Pool	Unknown	Stage 3 yet to be released	7 ha residential development designed to complement the fragile surrounding environment.
Athol Street	Unknown	Unknown	Development of 40 ha of land at Athol Street, Cooke Point in Port Hedland.
Hedland Junction at Wedgefield Industrial Estate	\$275,000	Underway	Offering expansion for small to medium businesses servicing the mining, construction and transport industries.
Iron Bridge Magnetite Project and Port Hedland	\$3.7 billion	Stage 2 construction in late 2019	The Project will deliver high grade 67% Fe magnetite concentrate product in the first half of the calendar year 2022. It will employ approx. 3,000 people during construction and 900 full time positions once operations commence in 2022.
South Hedland Cemetery	\$3.4 million	Master Plan completed and approved	Upgrades include additional car parking, shade and shelter, extra seating throughout the site, upgrades to the path system, landscaping and new universal access toilets. Introduction of a ring road with parking and pedestrian entrance dates at each border.
South Flank to replace Yandi mine	\$4.7 billion	Underway	South Flank will replace Yandi mine and is due to become operational by 2021, running through until at least 2046. It will generate about 2,500 jobs during construction and a further 600 ongoing operational roles.
Berth 3 Deck Replacement Project - Port of Port Hedland	\$33.5 million	Construction underway	Replacement of Berth 3 concrete deck, installation of the new wharf fenders and completion of other ancillary works. Expected to be completed by late October 2019.
Spoilbank Marina Development	\$95 million	Concept plan approved	Construction of 20 boat pens with capacity for up to 45 boats, a two-lane boat ramp, two breakwaters and internal revetment walls and a separate channel access to deep water. Expected before 2020.
South Hedland Integrated Sports Complex, McGregor Street Master Plan and JD Hardie Youth Centre upgrades	Unknown	Master Plans approved	Town of Port Hedland led upgrades to sporting precinct master plans to be staged as funding becomes available.

This analysis is supported by additional data provided at Appendix B - Socio-Economic Profile Details.

### Comparative Analysis with Karratha and Regional WA

Between 2012-13 and 2017-18, Port Hedland's economic growth surpassed that of Regional WA (by 2.9%) and Karratha (by 5.4%) which recorded negative growth. Port Hedland's historical gross regional product growth rates are similar to Karratha, which have followed the ebbs and flows of mining and construction industry activity. However, Port Hedland has experienced lower volatility by comparison with Karratha, due to the economy's continued economic expansion in the 2014-15 to 2016-17 period which was not replicated in Karratha. Compared to Port Hedland and Karratha, Regional WA's growth experienced a downward trend between 2010-11 and 2015-16.

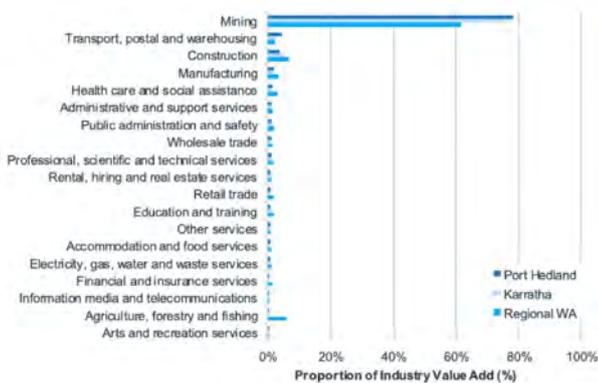


Figure 7. Proportion of Industry Value Add, Comparison Regions, 2017-18. Source: AEC (unpublished).

The three key industries for Port Hedland's economy were in line with both Karratha and Regional WA in 2017-18 and include:

- Mining
- Transport, Postal and Warehousing
- Construction

However, Port Hedland had a greater reliance on transport, postal and warehousing than both Karratha and Regional WA in 2017-18. This can be attributed to Port Hedland's geographical location and proximity to the water, with one of the world's largest export ports (in terms of cargo tonnage) situated on its coastline (Pilbara Ports Authority, 2019). Port Hedland had a heavier reliance on the mining industry than Regional WA, contributing to 78.6% of industry value add compared to 61.6% in Regional WA in 2017-18. Employment by industry (by place of work) estimates are consistent with this result in 2017-18; however, larger differences in labour specialisations of the above industries are evident between Port Hedland and comparison regions.

Compared to the comparison regions, in terms of employment by occupation, Port Hedland has a higher prevalence of machinery operators and drivers, whilst Karratha and Regional WA have a higher prevalence of professionals. The low prevalence of professional occupations is typical of regional areas with a small population; Port Hedland's population represents just 66.8% of Karratha's population.

Port Hedland recorded an unemployment rate of 4.4% in 2018. Port Hedland's unemployment rate fluctuations have trended in line with Karratha since 2006, sitting below the Regional WA average (5.6%), however higher than Karratha's rate of 2.5%.

This comparative analysis is supported by additional data provided at Appendix C - Comparative Profile Details.

### 6.2.2 Tourism

Port Hedland recorded approximately 244,000 domestic visitors (both day trips and overnight) and 15,300 international visitors in 2018. The large fluctuations in visitation over the 2008 to 2018 historical period can be attributed to the smaller size of Port Hedland compared to metropolitan areas, as well as the limitations of a small sample size during data collection.

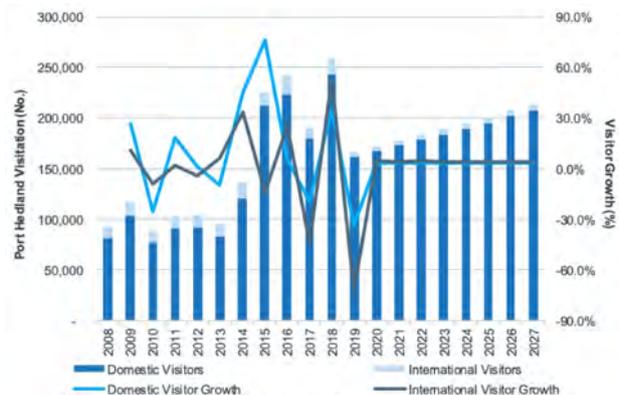


Figure 8. Visitation, Port Hedland, 2008 to 2018. Source: Tourism Research Australia (2019 a,b,d).

Note: Visitation projections have been estimated using Tourism Research Australia visitor night projections for Regional WA. Visitor night statistics were collected for 2018, to which visitor night growth projections were applied. These visitor night projections were converted to visitor projections by assuming that the average length of stay of visitors was held constant over the estimation period (2019 to 2027).

Port Hedland is renowned for its sizeable resources industry, private railways, large ships and export tonnage port, providing visitors with a unique opportunity to get close to the operations of Australia's iron ore mining industry. Key attractions include Spinifex Hill Studios, Courthouse Gallery, Cemetery Beach Park, Redbank Bridge Salt and Train Lookout and Don Rhodes Mining Museum. Proximity to Karijini National Park provides a wider drawcard. Popular events include the Port Hedland Cup (Heddy's Cup) and Pilbara Music Festival (North West Festival).

The majority of visitors (51.6%) came to the region for business purposes (aligning with the presence of mining in the region) whilst a further 27.9% visited for holiday reasons. The demographic composition of visitors in Port Hedland is largely linked to business visitation in Port Hedland, including FIFO employment opportunities. The strong FIFO presence within industry in Port Hedland, particularly construction and mining, attracts a large proportion of young males to the area. This is evidenced by males recording higher visitation than females in 2018, particularly for overnight stays where 90.1% of visitors were male. Correspondingly, domestic visitors were primarily those aged 25 to 34 years (38.6%); influenced by FIFO visitation. FIFO visitation is not largely evident in the international visitor market, which recorded a high number of visitors in the above 55 years old age cohort (27.7%) in 2018.

Within holiday visitation, social activities, outdoor/ nature and active outdoor/ sport activities were the most popular activities for both domestic and international visitors, whilst international visitors also enjoyed local attractions/ tourist activities.

'Other accommodation' was the most common accommodation type in 2018 (41.9%), which comprises educational institutions, boats, accommodation in FIFO locations and on transportation vehicles. It is anticipated this was largely driven by the FIFO visitation in Port Hedland, where workers reside in accommodation camps such as 'The Gateway Village'.

Visitation expenditure, including on activities, transport, accommodation, etc., in Port Hedland equated to \$8.56 million for international visitors and \$147.30 million for domestic overnight visitors in 2018.

Domestic visitation is projected to grow by 3.2% per annum (on average) until 2027, whilst international visitation is expected to be higher at 4.3% per annum (on average). As half of visitation in Port Hedland is related to business (incl. FIFO work), visitation is anticipated to trend in line with construction and mining activity in the coming years.

Self-drive caravan/camping visitors represent a key component of genuine leisure-based visitors to the region and the Town of Port Hedland RV Overflow Camping area seeks to attract visitation and extended stays within the Port Hedland townsite.

This analysis is supported by additional data provided at Appendix B - Socio-Economic Profile Details.

### Comparative Analysis with Karratha and Regional WA

Port Hedland recorded higher growth in domestic visitation since 2013 than the comparison regions; 24.1% per annum (on average) growth compared to 12.9% in Karratha and 7.4% in Regional WA. International visitation growth differed, with Regional WA recording higher growth than in Port Hedland (5.8% compared to 4.1% per annum on average), whilst Karratha recorded negative growth (2.1% per annum on average) since 2013.

In 2018, visitation for business purposes was the most common for Port Hedland (51.6%) and Karratha (41.0%). Comparatively, Regional WA recorded high visitation for holidaying purposes (53.3%). The demographic composition of visitors in Port Hedland is influenced by the large proportion of business visitation, typically linked to mining and construction employment (trades-related FIFO work). Domestic visitors in Port Hedland were primarily those aged between 25 and 34 (38.6%), whilst domestic visitation from the 45 and above age cohort was the most prevalent in Karratha (57.0%) and Regional WA (57.9%). International visitation by age was consistent across Port Hedland and comparison regions, with the above 55 age cohort the most prevalent. Males were the most common visitor across Port Hedland and comparison regions.

In 2018, domestic visitors in Port Hedland tended to undertake social activities and active outdoor/ sports activities, whilst international visitors more commonly undertook social activities and local attractions/ tours. This

differs from Karratha and Regional WA, where both domestic and international visitors more commonly undertook social activities and outdoor/ nature activities.

In 2018, visitors in Port Hedland tended to stay in 'other accommodation' (41.9%) which comprises of educational institutions, boats, accommodation in FIFO locations and on transportation vehicles. Comparatively, 38.0% of visitors in Karratha and 69.9% of visitors in Regional WA stayed in 'other private accommodation', which comprises friends or relatives' properties, caravan or camping, homestay and other non-commercial property (TRA, 2019a, b). The higher proportion of Regional WA visitors staying in 'other private accommodation' may be attributed to the higher holiday visitation compared to Port Hedland and Karratha.

International visitor expenditure was \$5.4 million lower in Port Hedland than in Karratha and \$63 million lower for domestic overnight. This can be attributed to the 53.4% higher visitation recorded for Karratha compared to Port Hedland in 2018.

Port Hedland domestic visitation is projected to grow by 3.2% per annum (on average) from 2019 to 2027 and international visitation by 4.3% per annum (on average), in line with projected growth for Karratha and Regional WA. As half of visitation in Port Hedland is related to business (incl. FIFO work), visitation is anticipated to trend in line with construction and mining activity in the coming years.

This comparative analysis is supported by additional data provided at Appendix C - Comparative Profile Details

### 6.2.3 Economic Competitive Assessment Results

This section is supported by additional data and analysis provided at Appendix D - Competitive Assessment

#### Macro-Economic Trends Analysis

Key macro-economic trends potentially influencing Port Hedland's economy include:

- **Mining activity boom and busts:** Port Hedland's economy runs on direct and indirect mining activity. The booms and busts within the mining activity cycle impact direct labour usage, intermediate input

usage for mining operations, dividends, retained earnings and investment in the economy. The prolonged downturn in mining activity since 2013 is anticipated to recover, due to a number of new mining projects as well as the approval of the Eliwana project and replacement of the Yandi mine with South Flank.

- **Growing population:** Volatility in annual population growth rates in regional mining communities is common, where population growth is strongly linked to periods of operational expansion and major construction works. Positive population growth is anticipated for Port Hedland until 2041, with growth anticipated in line with the growth in mining and construction industry activity.
- **Growing dwelling demand:** Dwelling demand in Port Hedland differs from that in Western Australia as a whole, with a more diverse housing supply. Port Hedland's dwelling demand is heavily influenced by changes in the resources sector, which impacts population growth, real estate confidence and thus demand for dwellings. Port Hedland's dwelling demand has decreased by 3.6% annually between 2006 and 2016; yet this is anticipated to increase with projected population growth.
- **Consumer expenditure patterns:** Consumer expenditure in Port Hedland is heavily driven by activity cycles of the mining industry, as resident workers are typically directly or indirectly associated with employment in this industry. The retail sector in Port Hedland is small, representing just 5.2% of overall employment. Therefore, capturing greater spend from local residents and FIFO workers will prove essential for growth over the coming years.
- **FIFO practices:** FIFO practices are common in areas associated with labour-intensive, short-term activities such as construction works. More FIFO workers will be required over the next few years in Port Hedland, with the anticipated boom in construction, including the capital works program to expand the Port (2-year project), BHP South Flank mine in Pilbara, FMG Port Hedland expansion and Rio Tinto expansions and new mines (Centre Point Finance, 2019).
- **Visitation activity:** Tourism in Port Hedland is associated with its shipping and mining heritage as well as its Indigenous and

European history experiences. Domestic visitors can be primarily attributed to those visiting for business purposes (54.1%), followed by holidaying visitors (25.3%). Comparatively, international visitors are primarily comprised of those on holiday (69.1%) followed by business (11.9%).

### Industry Concentration

#### Mining and Support Services

Mining is a prominent industry within the Port Hedland economy, responsible for 70% of total industry value add in 2017-18. The success of Port Hedland's mining industry is enhanced by the Port of Port Hedland, one of world's largest bulk export Port's, which is responsible for approximately 75% of the State's and 50% of the world's seaborne iron ore exports (in conjunction with the Dampier Port) (Pilbara Ports Authority, 2018). Coupled with the extensive inland rail network, Port Hedland is well-positioned to service mining exports and transport industry activity.

Accordingly, Port Hedland has well established industries in mining and transport, postal and warehousing, as well as electricity, gas, water and waste services, and rental, hiring and real estate services. Each of these sectors has a strong existing labour specialisation in the region. Forward projections of population (including increased population attraction of remote workers) and the number of newly announced projects (predominantly mining and construction), are supportive for the future of these sectors locally.

#### Manufacturing, Training and Service Provision

Manufacturing, education and training, and healthcare and social assistance industries are comparatively lacking in terms of labour specialisation in Port Hedland. Port Hedland has the potential to support greater advanced manufacturing in terms of mining equipment, technology and services, which would enhance the mining supply chain locally. To transform Port Hedland from a region of cyclical economic activity to a more balanced and sustainable economy, the provision of high-level community services is essential.

Service provision (including professional scientific and technical services, etc.) are also lacking in terms of labour specialisation in Port Hedland. This is typical of a regional community which may not be able to support large provision of these services. However, in the case of Port

Hedland, the volatile population over the past decade has resulted in minimal investment directed towards increasing service provision in line with demand from the population. As mentioned, projections reveal that Port Hedland's population is anticipated to increase by 2.5% annually (on average) for the next 20 years and increased service provision will be required to fill the gap.

#### Import/Export Analysis

With approximately \$1.4 billion inputs purchased from outside the local economy compared to just \$711.6 million purchased within the local economy, Port Hedland's local supply chains could be further established. Key imports to the region consist of construction, financial and insurance services and mining support services. Evidently, import replacement opportunities exist for construction and mining support services, which will strengthen these local industry supply chains.

The high importation of financial and insurance services is consistent with those seen in similar regional areas of Australia. While some degree of important replacement may come from increased critical mass associated with population growth and increased population attraction of remote workers over time, it is likely this sector will remain a key import to the region into the future.

Local exports are reflective of key industries in the region, including metal ore mining, construction and transport, and logistics.

## 6.3 Environmental Profile

The following section has been prepared by Emerge Associates and provides a review of the key environmental features and issues within the Town.

### 6.3.1 Physical Features and Environment

#### Climate

The Town is described as having an arid-tropical climate, with warm dry winters and warm to hot summers. Weather data has been taken from the PHIA historical data, with the average maximum temperatures range from 27.3°C in July through to 36.8°C in March, while the average minimum temperatures range from 12.4°C in July through to 25.6°C in January.

The average rainfall within Port Hedland is approximately 317 mm annually (BoM 2019), with rainfall generally higher within the coastal portion of the Town. The majority of rainfall occurs between December and June, with the wettest months being January – March, associated with tropical storms and the cyclone season.

During the northern wet season (October – April), winds are generally easterly to south-easterly in the morning and westerly to north-westerly in the afternoon. During the northern dry season (May – September), the winds are generally variable, from easterly to east-south-easterly in the morning and westerly to northerly in the afternoon (Cardno 2011). The coast is also strongly impacted by sea breezes, which can be around 25% stronger than the mean annual wind speed. The sea breezes are likely to develop in the afternoon and are generally from a westerly to north-westerly direction (Cardno 2011). The average wind speed and direction for the dry season and wet season are provided in Figures 9 to 11.

The Town is located within the ‘cyclone belt’, the most cyclone-prone stretch of coastline within Australia, with the Pilbara coastline experiencing more cyclone activity than any other part of Australia. Winds associated with cyclone events may exceed 100 knots and may be experienced in association with rough sea conditions and elevated water levels (Cardno 2011).



Figure 9: Average wind direction and speed at 9am for the wet season (BoM 2019)



Figure 10: Average wind direction and speed at 9am for the dry season (BoM 2019)

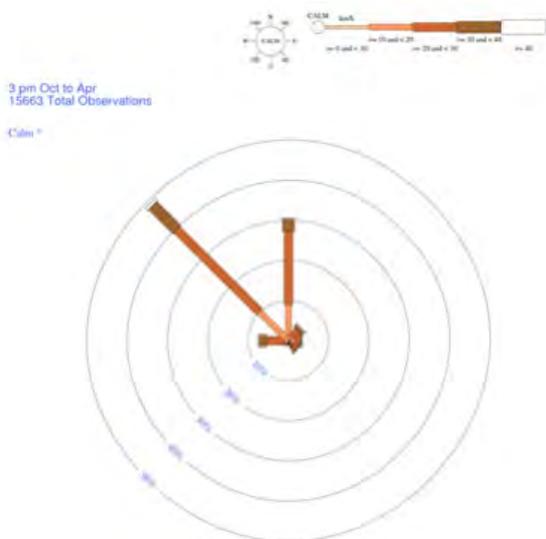


Figure 11: Average wind direction and speed at 3pm for the wet season (BoM 2019)



Figure 12: Average wind direction and speed at 3pm for the dry season (BoM 2019)

### Landforms and soils

There is a minimum of eight geological units within the Town, based on broad-scale mapping produced by the Geological Survey of Western Australia (1990), as listed below:

- ACDcsw - CONSTANTINE SANDSTONE, subunit: Wacke; locally subarkosic; fine-to coarse-grained; well-developed graded units; minor pebble beds and shale; turbiditic; metamorphosed.
- AgPMA - Granitic rock, unassigned, interpreted from aeromagnetic data.
- APixmbmut - Interleaved amphibolite and talc-tremolite-serpentine-chlorite schist.
- ACDms - MALLINA FORMATION: interbedded shale, siltstone, sandstone, and medium-to fine-grained wacke; metamorphosed.
- AmyyPWP - Mylonitic granitoid, felsic and mafic volcanic, ultramafic, and sedimentary rocks.
- APixbs - Pilbara Supergroup, unassigned: mafic and ultramafic volcanic rocks; minor chert; metamorphosed.
- AgPI - PIPPINGARRA GRANITIC COMPLEX: undivided granitoid rocks; metamorphosed.
- AgmPMA - Unassigned monzogranite, interpreted from aeromagnetic data; metamorphosed.
- Other – Unassigned geological areas.

There is a minimum of five soil groups located within the Town, based on Tille (2006), as listed below:

- Tidal soils - Intertidal soils are inundated regularly, while supratidal soils are inundated infrequently. Soils are deep (>100 cm) sandy clay loams or silty light to medium clays overlying silty medium clays.
- Calcareous deep sands - This soil group comprises deep white, grey and brown calcareous sands of the coastal margins of the survey area. The sands tend to be white to light grey on the beach and foredune zones, trending to yellowish brown to strong brown away from the beaches.
- Red deep sandy duplex soils - These soils have medium (10-30 cm) topsoils of loamy sands to sandy loams overlying medium to thick (30-60 cm) subsoils of clay loams or light to medium clay. These soils are mostly deep (>100 cm).

- Red/brown non-cracking clays - Shallow (<50 cm) red/brown non-cracking clays have thin clay loam or light clay topsoils overlying subsoils of light clay or are uniformly clay throughout.
- Red deep sands - The majority of the deep red sands occur on sandplains, sand sheets and sand banks. These soils are deep and have thin to medium (10-30 cm) topsoil textures of loamy sand overlying thick (>60 cm) subsoils of clayey sand or sandy loam.

### Acid sulfate soils

Acid sulfate soils (ASS) is the name commonly given to naturally occurring soils and sediment containing iron sulphide (iron pyrite) materials. In their natural state, ASS are generally present in waterlogged and/or anoxic conditions and do not present any risk to the environment. ASS can pose issues when oxidised, producing sulphuric acid, which can present a range of risks for the surrounding environment, infrastructure and human health.

DWER provides broad-scale mapping indicating areas of potential ASS risk (DWER 2019). A review of the DWER mapping indicates that the entire Port Hedland townsite is classified as having a 'moderate to low risk' of ASS occurring within 3 m of the natural soil surface. Areas of the port operations area are classified as having a 'high to moderate risk' of ASS occurring within 3 m of the natural soil surface.

### Coast and foreshores

The Town has as an extensive coastline, which encompasses a variety of nearshore and coastal landforms. Within the Town this includes:

- Port Hedland port.
- The Spoil Bank, composed of dredged harbour spoil.
- A number of islands, including Finucane Island, Downes Island, Little Turtle Island, Bedout Island and Weerde Island.
- Several river mouths, including the Turner, De Grey and Yule Rivers.

The Port Hedland port is the largest port (by tonnage) in Australia (Town of Port Hedland 2018) The port services the mineral export business, primarily iron ore. The harbour has been dredged several times to accommodate expansion of the port.

The Port Hedland townsite is located on a narrow headland, which is exposed to erosion hazards and low-lying areas are subject to storm surges and inundation.

The general coastal morphology of the Port Hedland region is a limestone barrier system which is typified by the low coastal cliff and rock formations along the shoreline. Due to the nature of the coastline, there are limited mobile sediments present at the shoreline; however, the development of the Spoil Bank has provided a source for mobile sediments around the Port Hedland shoreline (Cardno 2011).

Additionally, due to the large tide range combined with wave forcing, there is a highly energetic environment near the shoreline which results in limited mobile sediments in the nearshore zone. Sandy beaches in the Port Hedland region are normally perched on rock platforms or constrained by rock formations. Where mobile sediments exist in the nearshore zone, they generally have an eastern movement, although this can vary seasonably (Cardno 2011).

### Biodiversity and natural areas

The Town of Port Hedland is situated within three Interim Biogeographic Regionalisation for Australia (IBRA) regions; Dampierland, Pilbara and Great Sandy Desert. These three regions can be broken down into four sub-regions: Chichester (extending across the southern portion of the Town), Roebourne (extending across the northern portion), Pindanland (located within the north-western portion) and McLarty (located within the north-eastern portion) (Thackway and Cresswell 1995). The four IBRA regions are described below in Table 14.

Table 14: IBRA regions within Town of Port Hedland

Region	Description
Chichester	Undulating Archaean granite and basalt plains include significant areas of basaltic ranges. Plains support a shrub steppe characterised by <i>Acacia inaequilatera</i> over <i>Triodia wiseana</i> (formerly <i>Triodia pungens</i> ) hummock grasslands, while <i>Eucalyptus leucophloia</i> tree steppes occur on ranges.
Roebourne	Quaternary alluvial plains with a grass savannah of mixed bunch and hummock grasses, and dwarf Shrub Steppe of <i>Acacia translucens</i> or <i>A. pyrifolia</i> and <i>A. inaequilatera</i> . Resistant linear ranges of basalts occur across the coastal plains. These uplands are dominated by <i>Triodia</i> hummock grasslands. Ephemeral drainage lines support <i>Eucalyptus</i> woodlands. <i>Samphire</i> , <i>Sporobolus</i> grasslands and mangal occur on the marine alluvial flats and river deltas.
Pindanland	The Pindanland subregion comprises sandplains of the Dampier Peninsular and western part of Dampier Land, including the hinterland of the Eighty Mile Beach. it is a fine-textured sand-sheet with subdued dunes and includes the paleodelta of the Fitzroy River. The vegetation is described primarily as pindan. This is the coastal, semi-arid, north-western margin of the Canning Basin.
McLarty	This is mainly tree steppe grading to shrub steppe in south; comprising open hummock grassland of <i>Triodia pungens</i> and <i>Triodia schinzii</i> with scattered trees of <i>Owenia reticulata</i> and Bloodwoods, and shrubs of <i>Acacia</i> spp, <i>Grevillea wickhamii</i> and <i>G. refracta</i> , on Quaternary red longitudinal sand dune fields overlying Jurassic and Cretaceous sandstones of the Canning and Armadeus Basins. Gently undulating lateritised uplands support shrub steppe such as <i>Acacia pachycarpa</i> shrublands over <i>Triodia pungens</i> hummock grass.

A variety of vegetation structural types occur in the Port Hedland area, comprising numerous floristic types. Broad-scale mapping completed by Beard (1975) indicates that at least seven broad vegetation types occur within the Port Hedland area, as identified below:

- Hummock grasslands, dwarf-shrub steppe; *Acacia translucens* over soft spinifex.
- Hummock grasslands, shrub steppe; kanji over soft spinifex
- Hummock grasslands, grass steppe; soft spinifex
- Bare areas; mudflats
- Low forest; mangroves (Kimberley) or thicket mangroves (Pilbara)
- Mosaic: Short bunch grassland – savannah/ grass plain (Pilbara)/Hummock grasslands, grass steppe; soft spinifex
- Medium woodland; river gum (*Eucalyptus camadulensis*)

Vegetation condition within the northern portion of the Town has been previously surveyed by ENV. Australia (2011). This survey identified vegetation condition ranging from ‘completely degraded’ to ‘pristine’. Areas of ‘pristine’ condition vegetation occur within the tidal flats near the town, whilst large areas of ‘excellent’ condition vegetation are located to the south of the town.

The Town is known to contain a number of significant flora, vegetation, and fauna values that are identified under both State and Federal legislation and policy.

These values include:

- Priority Ecological Communities (PECs) such as:
  - o Eighty Mile System.
    - This is a Priority 3(iii) system;
    - Described as: Beach foredunes, longitudinal coastal dunes and sandy plains with tussock grasslands and spinifex grasslands; and
    - Threats: extensive threatening processes acting at landscape scales, namely altered fire regimes, over grazing, erosion, and weed invasion (buffel grass).
  - o Gregory System
    - Linear dunes and restricted sandplains supporting shrubby hard spinifex (and occasionally soft spinifex grasslands).

- Threatened and Priority flora, including but not limited to, *Abutilon pritzelianum*, *Bulbostylis burbridgeae*, *Gomphrena pusilla*, *Goodenia nuda*, *Gymnanthera cunninghamii*, *Heliotropium muticum*, *Nicotiana umbratica*, *Phyllanthus aridus*, *Ptilotus appendiculatus* var. *minor* and *Tephrosia rosea* var. *venulosa*.
- Threatened and Priority fauna species, including but not limited to, eastern curlew, northern quoll, green turtle, brush-tailed mulgara, flatback turtle, ghost bat, bilby, Pilbara olive python and banded hare-wallaby.

*Refer to Figure 13 – Priority Flora Locations*

*Refer to Figure 14 – Threatened and Priority Fauna Locations*

Three areas within the Town are identified as lands under Department of Biodiversity, Conservation and Attractions (DBCA) control:

- Eighty Mile Beach Marine Park, located within the north-eastern portion of the Town, extending to the east of the Town.
- Bedout Island Nature Reserve, located approximately 33 km offshore, to the north-east of Port Hedland.
- Little Turtle Island Nature Reserve, located approximately 20 km offshore, to the north-east of Port Hedland.

Key environmental assets within the Town include:

- Mangroves – provide habitat for marine and terrestrial organisms, and nursery habitats for fish and crustaceans, performing an important ecosystem function. Additionally, mangroves improve water quality through acting as a nutrient and sediment sink, and provide important physical functions, including the stabilisation of shorelines, and mitigation of wave energy.
- Beaches – Cemetery and Pretty Pool beaches provide important nesting habitat for flatback turtles. Nesting turtles are sensitive to light impacts, and can be protected through the avoidance, management and mitigation of light impacts from development and industry.

## 6.3.2 Hydrology

### Surface Water

There are two surface drainage systems located within the Town, namely the De Grey River Basin (located within the north-eastern and a small area of the south-eastern portion of the Town) and the Port Hedland Coast Basin which occupies the remainder of the Town area.

A number of major waterways flow through the Town, including the De Grey River, Yule River, Turner River and Shaw River.

*Refer to Figure 15 – Major Waterways*

### Groundwater

Information relating to regional groundwater obtained from the Water Register (DWER 2019b) indicates the groundwater beneath the Local Government Area (LGA) is a multi-layered system comprised of the following aquifers:

- Canning - Wallal
- Canning - Broome
- Combined - Fractured Rock West - Fractured rock
- Hamersley - Fortescue
- Hamersley - Fractured rock
- Lower Turner Alluvial
- Pilbara - Alluvial
- Pilbara - Coastal saline
- Pilbara - Fractured rock
- Pilbara - Lower de grey Alluvial
- Pilbara - Lower Yule Alluvial
- Wittenoorn – Wittenoorn

Available groundwater level data suggests that groundwater flow is generally from south-east to north-west towards the Indian Ocean. Depth to groundwater across the townsite (i.e. West End, Spinifex Hill, East End Urban Village) can be assumed to vary between 1 m and 15 m below ground level (BGL). Depth to groundwater in South Hedland can be assumed to be approximately 5 m BGL, and depth to groundwater below the PHIA and Surrounds precinct can be assumed to be approximately 4 m BGL. Overall, groundwater level and quality data are limited.

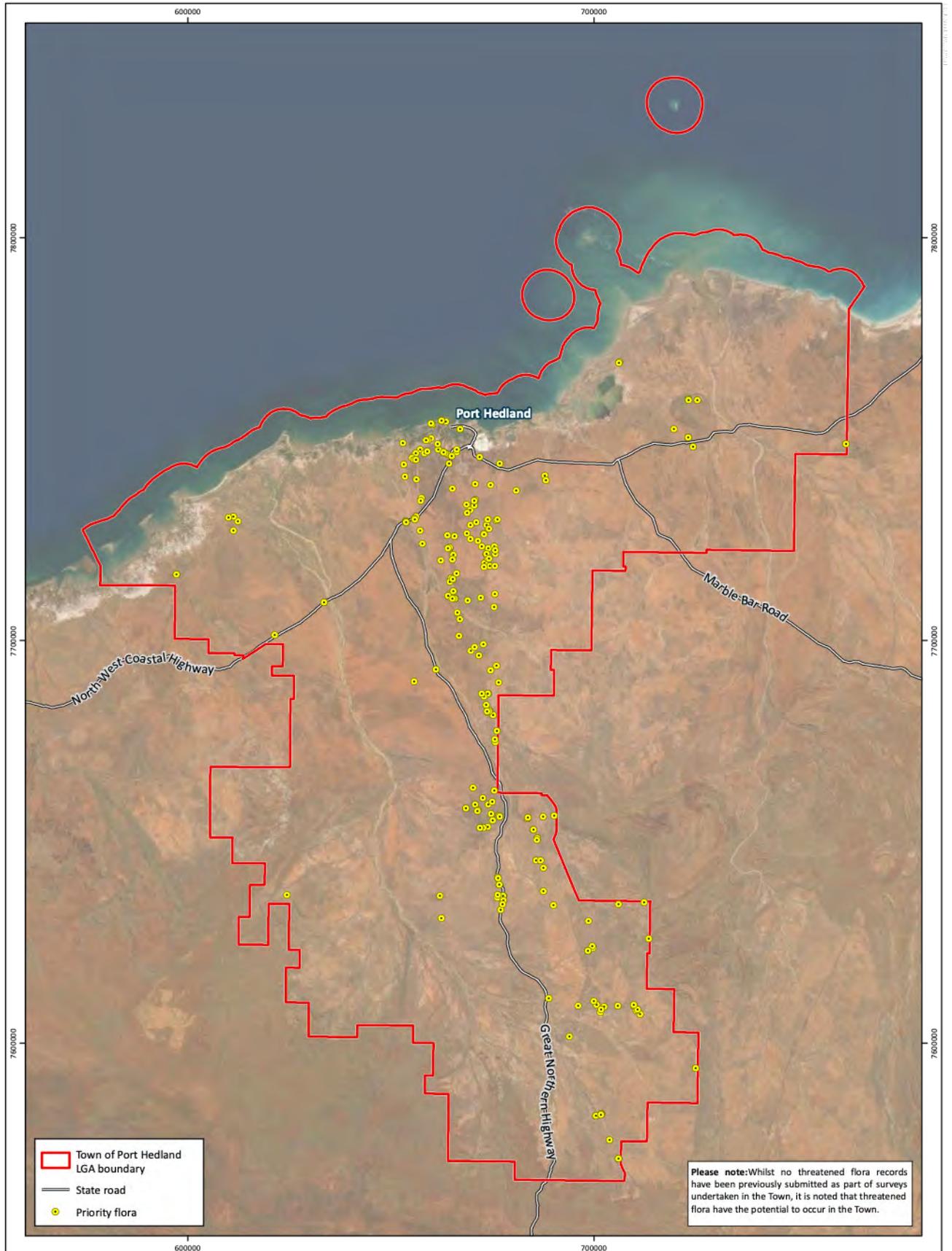


Figure 13 – Priority Flora Locations

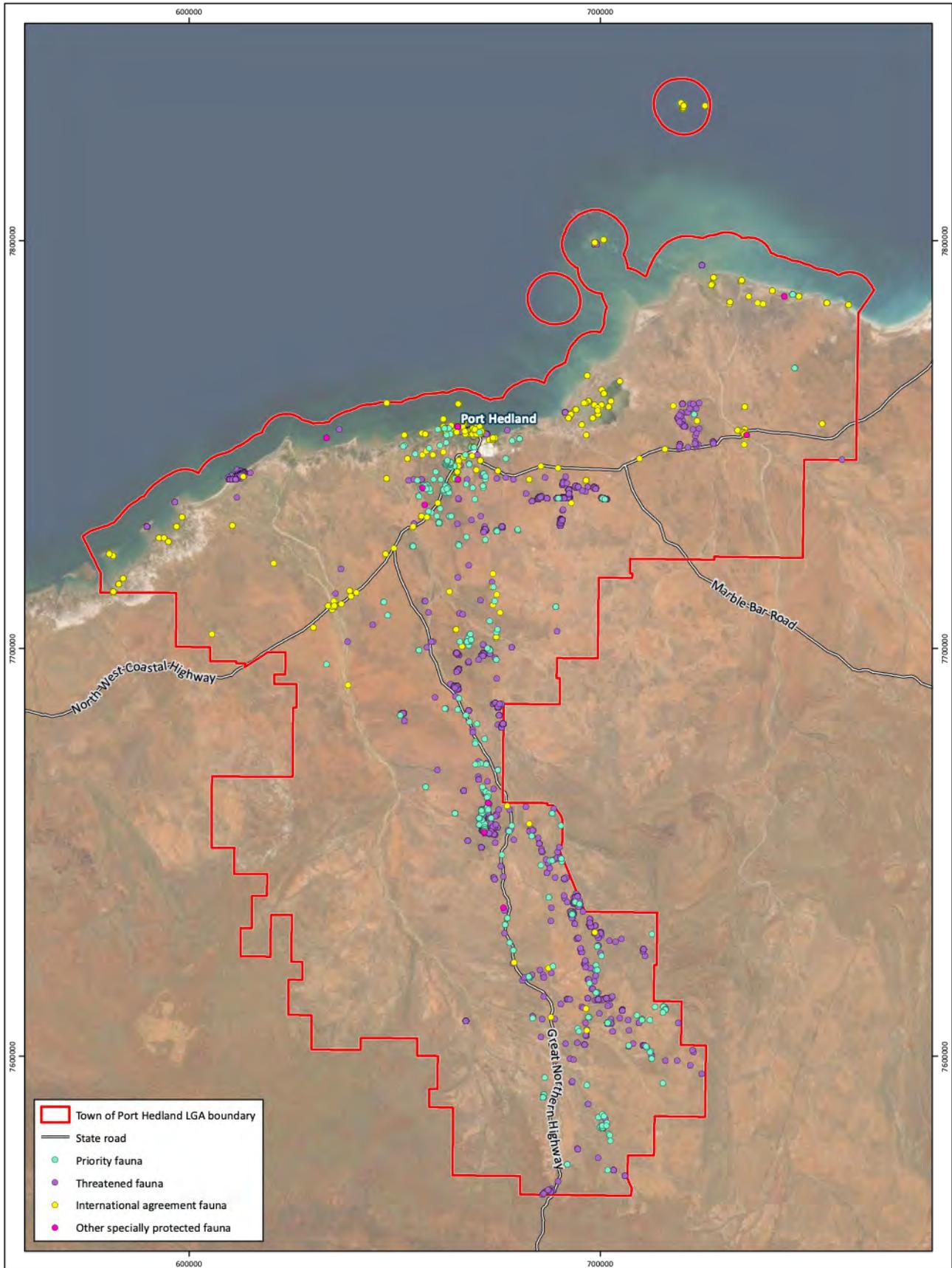


Figure 14 – Threatened and Priority Fauna Locations

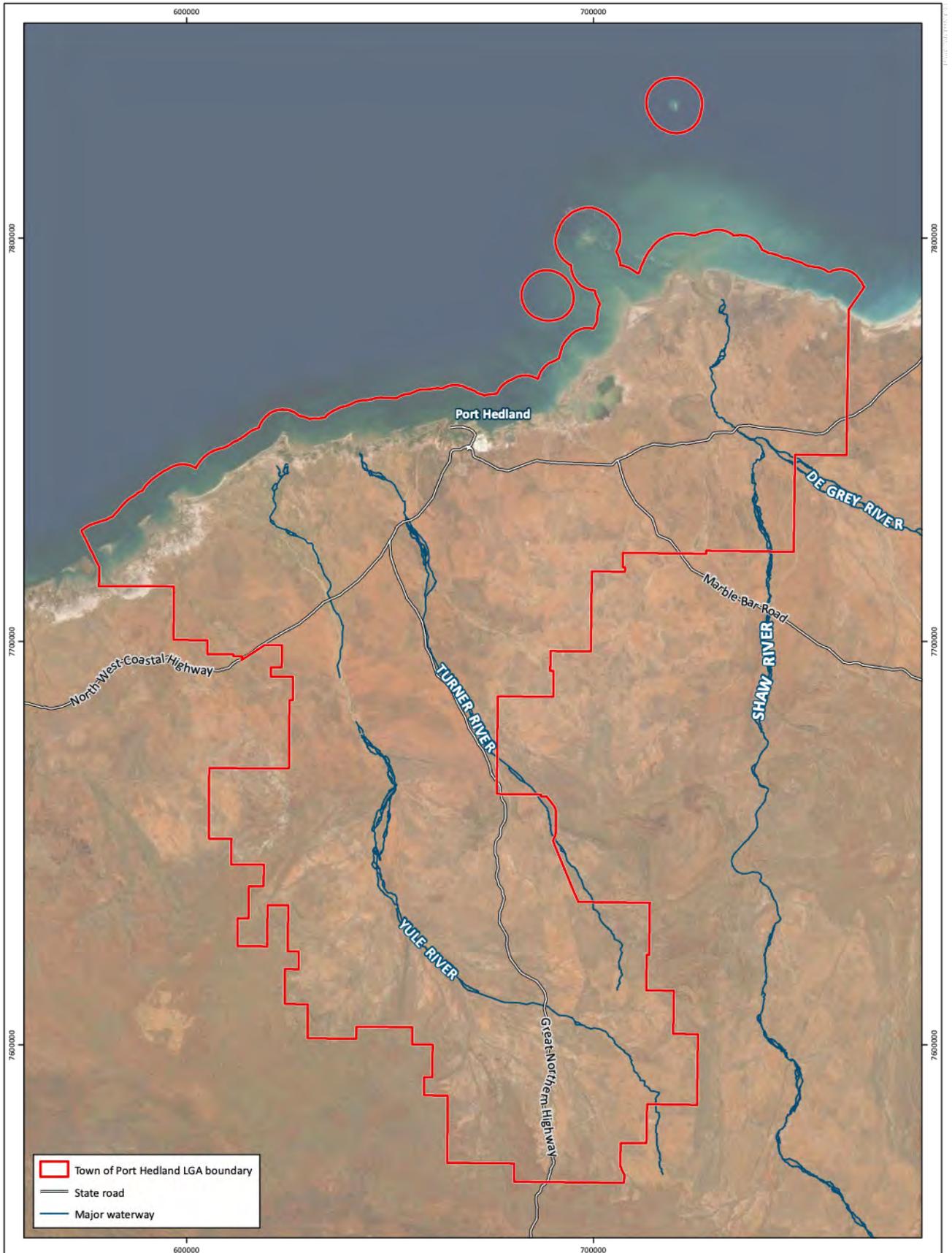


Figure 15 – Major Waterways

### Wetlands

Wetland mapping of the Pilbara was undertaken by the V & C Semeniuk Research Group (2000), which identified several significant wetlands within the Town, on the basis of their vegetation, avifauna and other fauna, and general features. There is currently no mapping of these wetlands available apart from the report.

Additionally, three areas located within the Town are identified as 'Important Wetlands' by the federal Department of Environment and Energy (DoEE). Important Wetlands are those that are determined to be nationally important wetlands; however, are not protected under legislation. The three wetlands identified within the Town are:

- Eighty Mile Beach System
- De Grey River
- Leslie (Port Hedland) Saltfields System.

### 6.3.3 Water Supply

Public Drinking Water Source Areas (PDWSA) are proclaimed by DWER to protect identified drinking water sources, including surface water and groundwater sources (DoW 2009). They are proclaimed under the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* or the *Country Areas Water Supply Act 1947* as Water Reserves, Catchment Areas or Underground Water Pollution Control Areas. PDWSAs provide the population with the majority of its drinking water supplies and can be vulnerable to contamination from a range of land uses. Once an area is identified as a PDWSA, consideration needs to be given to the intended land use and associated activities to ensure that they are appropriate in meeting the water protection quality objectives of the area.

Two PDWSAs are located within the Town, the De Grey River Water Reserve, located to the east of Port Hedland, and the Yule River Water Reserve, located to the west of Port Hedland. Development is able to occur within PDWSAs, subject to compatibility as identified within Water Quality Protection Note no. 25 (DoW 2016).

*Refer to Figure 16 – Public Drinking Water Source Areas*

### 6.3.4 Land Capability

Several stations operate in the Town across large pastoral leases, including Mundabullagana, Indee and De Grey. A survey undertaken in 2004 (DAFWA) assessed land capability for pastoral uses, with capability ranging from 'very low' to 'very high' across the Town. The higher-ranking areas were ranked as such on the basis that they had lower soil erosion and better condition vegetation than any other areas.

Solar salt ponds are located within the Town, which allow Dampier Salt (subsidiary of Rio Tinto) to produce over 3 million tonnes of industrial salt.

### 6.3.5 Bushfire hazard and risk

Bushfires are a natural and periodic event in the Australian landscape, with many native flora and fauna adapted to fire and often requiring fire as part of their life cycle. The frequency and occurrence of fire within the Town is affected by a complex range of interrelated factors, including seasonal rainfall conditions and the associated accumulation of flammable materials (i.e. vegetation, leaf litter), ignition source (i.e. lightning, people) and land use (i.e. urban, rural, pastoral, mining, amenity). Of these, the main determinant is the availability of flammable material which often influences the intensity, extent and frequency of fires.

Bushfire risk is likely to exist where areas of intact remnant vegetation are present, and in particular will be an important consideration where dwellings and infrastructure occur within 150 m of intact remnant vegetation.

The majority of the Town is identified as a 'bushfire prone area' under the state-wide Map of Bush Fire Prone Areas prepared by the Office of Bushfire Risk Management (OBRM 2019), including around areas of existing development within the major towns of Port Hedland and South Hedland. In accordance with State Planning Policy 3.7 Planning in Bushfire Prone Areas (WAPC 2015) and the Guidelines for Planning in Bushfire Prone Areas Version 1.3 (WAPC and DFES 2017), the identification of a site within an area declared as bushfire prone necessitates that a further assessment of the determined bushfire risk affecting the site is carried out as part of detailed planning and design.

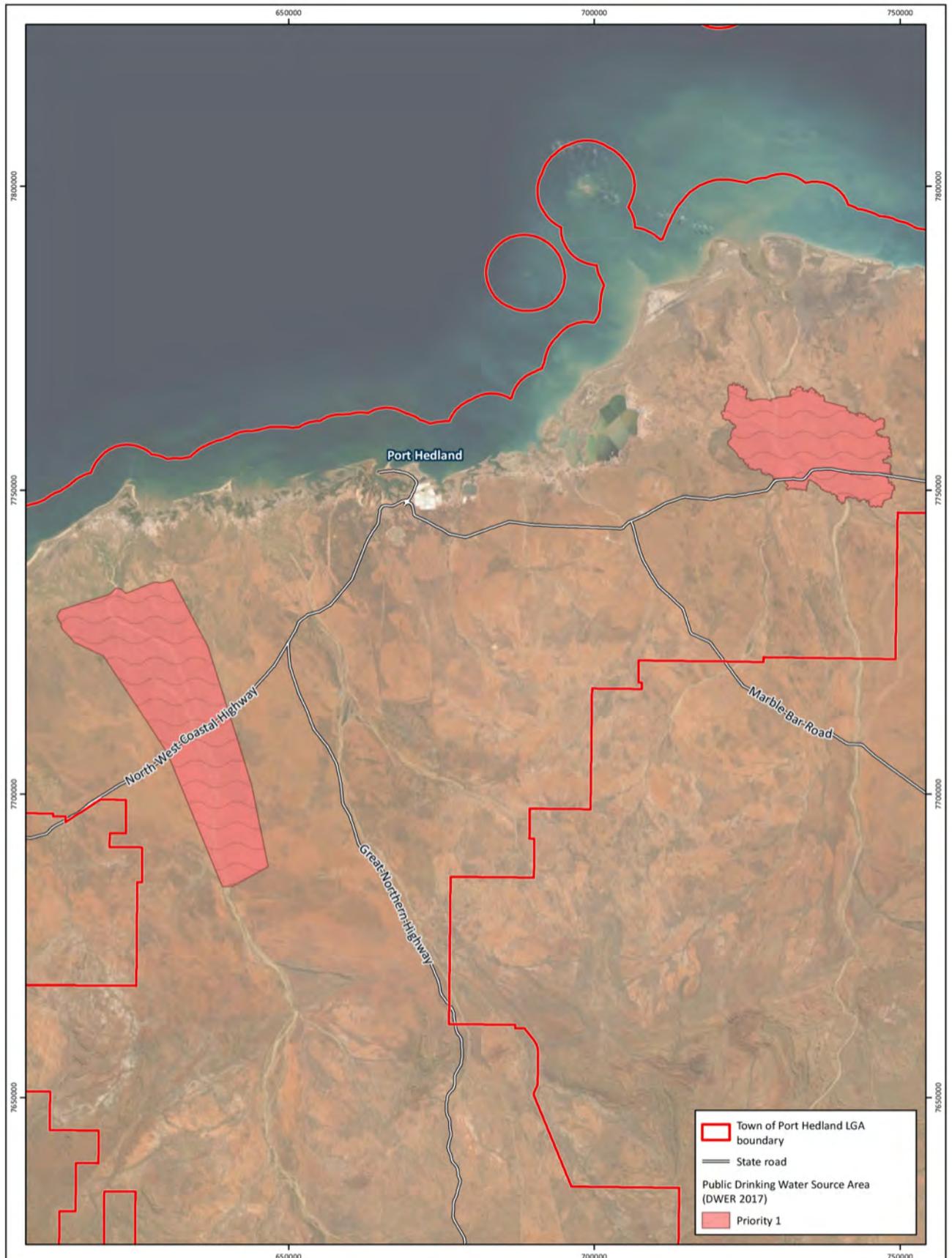


Figure 16 – Public Drinking Water Source Areas

Ensuring that bushfire risk is appropriately considered as part of future development is critical to ensuring future residents and development are not put at risk of bushfire.

### 6.3.6 Other land use considerations

Within the Town, there are a number of land uses that occur within the vicinity of existing sensitive land uses (such as residential development, schools, hospitals, motels, etc.). These land uses include:

- Port Hedland port and associated infrastructure, including extractive industry and railways.
- PHIA.
- Dampier Salt.
- Wastewater treatment plant.
- South Hedland landfill.
- Explosives reserve.
- Ammonium nitrate emulsion plant.
- Petrol stations.

Where future expansion of these areas occurs, or where new development is planned, these will need to consider the risk posed to sensitive land uses.

### 6.3.7 Contaminated sites

A review of the DWER Contaminated Sites Database indicates that there are several sites within the Town that are recorded within the Contaminated Sites Database, including areas that are classified as 'contaminated – remediation required' and 'contaminated – restricted use'. Future land use planning can appropriately consider contaminated lands through the existing planning process.

### 6.3.8 Air Quality

In 2009, the Environmental Protection Authority raised concerns about the possible effects of dust on the health of Port Hedland residents as a result of elevated dust levels being reported close to homes and businesses in Port Hedland's west end owing to the historic proximity of port and residential and other uses.

Following this, in 2009, the then Premier established the Port Hedland Dust Management Taskforce to prepare a plan to address dust management in Port Hedland. This resulted in the preparation of the *Port Hedland Air Quality*

*and Noise Management Plan*, which introduced interim measures to limit exposure to dust to be at risk groups.

The resultant Health Risk Assessment which arose out of this process concluded that there is sufficient evidence of possible negative health effects due to the dust to warrant a land use planning response to reduce community exposure to dust.

This has led to the recent State government preparation of Improvement Plan No. 50 for the west end precinct and subsequent initiation of an Improvement Scheme. The State government is also in the process of engaging with the community on a proposed buy back scheme relating to permanent residential properties located within the west end precinct.

## 6.4 Servicing and Infrastructure

### 6.4.1 Wastewater Infrastructure Overview

The Water Corporation has produced Concept Planning Sheet No SD 121 for wastewater (sewer) assets which focuses on the Town of Port Hedland within the peninsula of Port Hedland (between the Town centre and Pretty Pool) and bordered by Wilson Street to the south. An extract of this plan is shown in Figure 17.

*Refer to Figure 17 – Existing Wastewater Infrastructure in Port Hedland townsite*

This plan shows conceptual analysis of the existing and proposed future wastewater planning in the Town of Port Hedland with existing services infrastructure shown in solid red and blue linework and proposed conceptual future layouts in dashed red and blue linework. In wastewater planning red denotes gravity sewer systems and blue denotes the pumping station and pressure main network. As can be seen from the information above, the Water Corporation presently has planning for future expansion over a number of areas within the Port Hedland Townsite as shown in Figure 18.

*Refer to Figure 18 – Concept Planning for Wastewater Infrastructure in Port Hedland townsite*

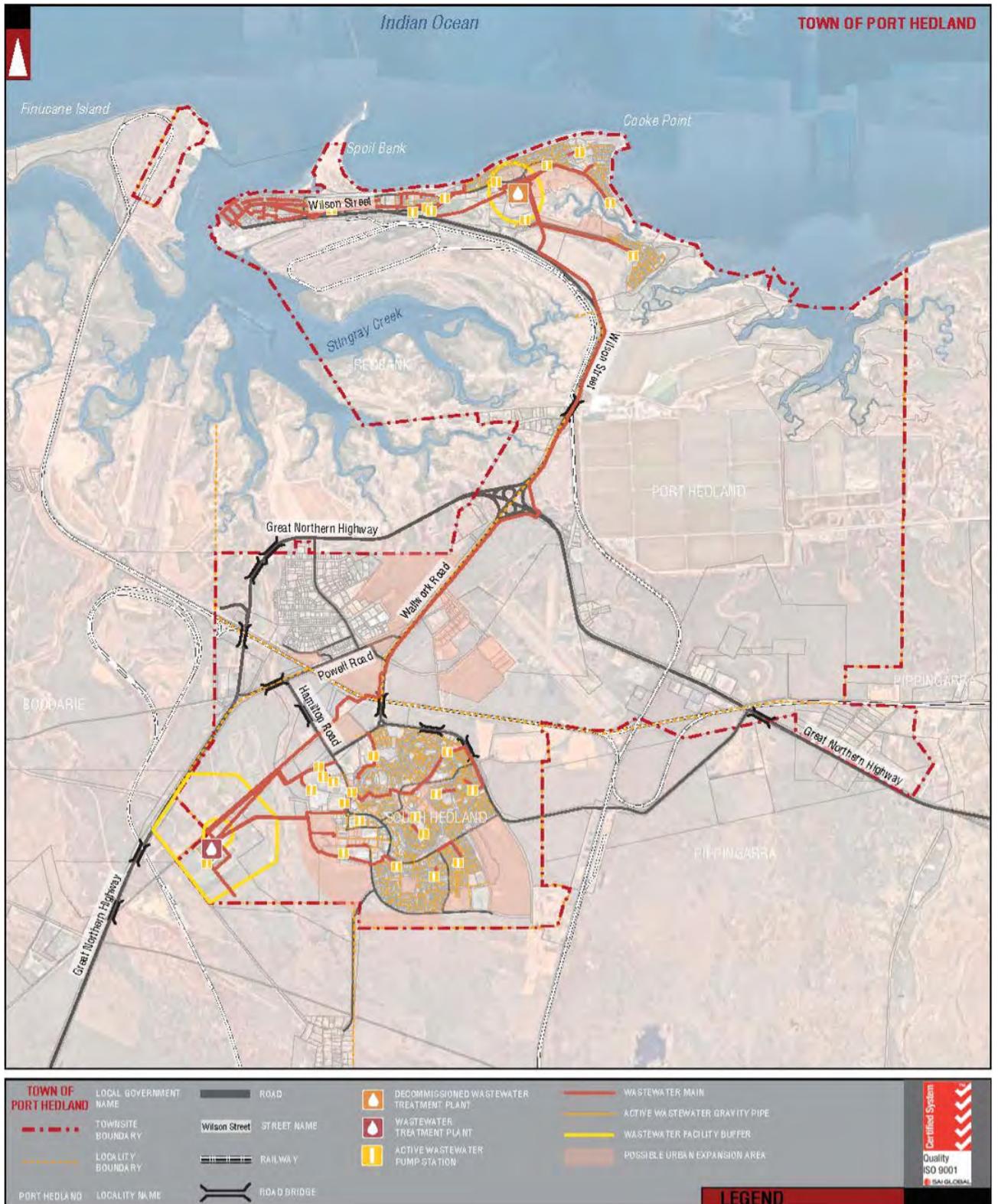


Figure 17 – Existing Wastewater Infrastructure in Port Hedland townsite



Figure 18 – Concept Planning for Wastewater Infrastructure in Port Hedland townsite

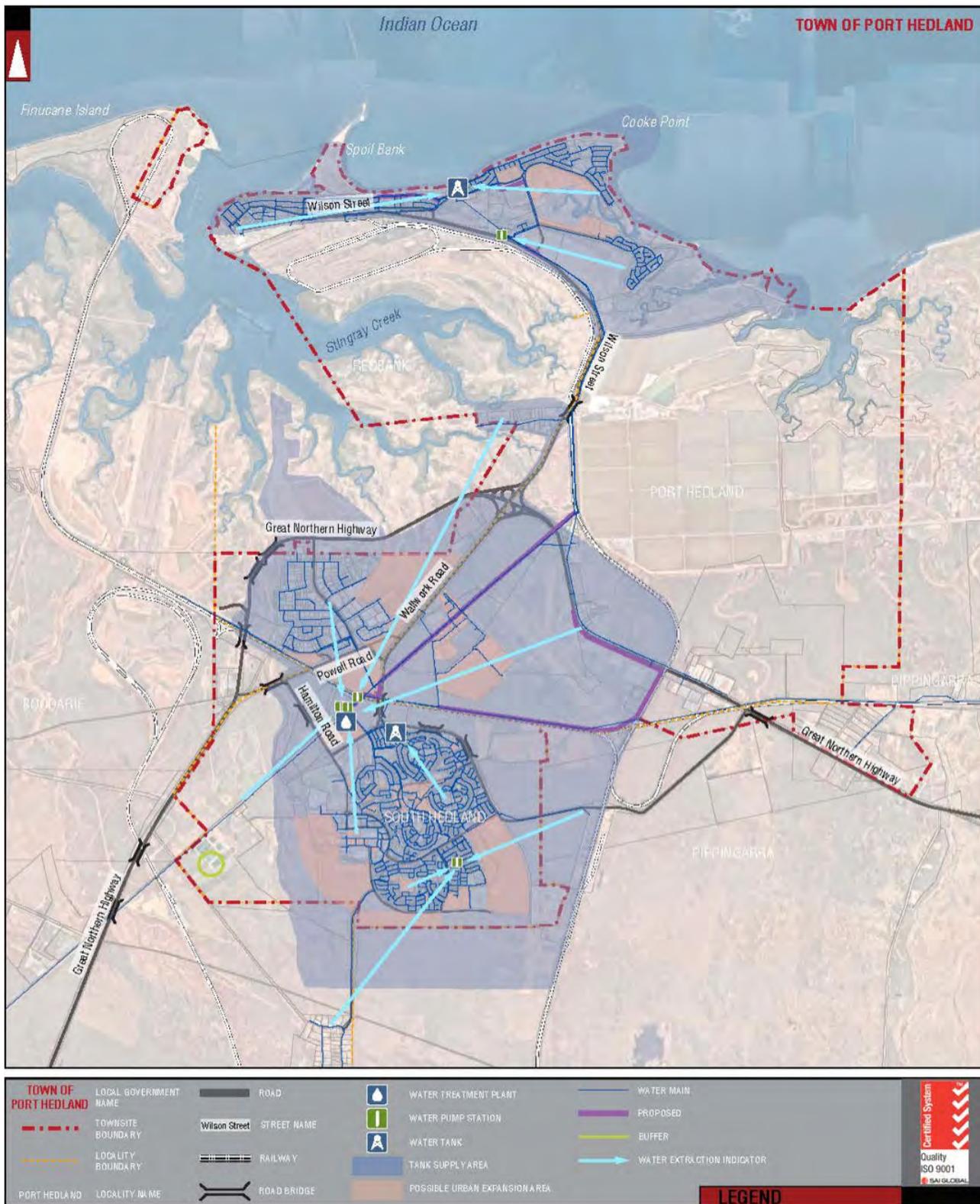


Figure 19 – Water Infrastructure

There is a proposed 600mm diameter pressure main that is shown on this concept plan, along Wilson Street heading to the south of the Port Hedland Townsite. It is suspected that this is heading toward Wedgefield / South Hedland / PHIA to pick up additional catchments. Confirmation of this planning to the south of Port Hedland townsite has been requested from the Water Corporation.

The Water Corporation operates a WWTP in South Hedland. All residential zoned land in the Port Hedland townsite is serviced by reticulated sewerage. Development on the outskirts of the Port Hedland townsite is likely to require the construction of additional wastewater infrastructure, including wastewater pumping stations and pressure mains. This will be based on the local topography and the invert levels of any adjacent infrastructure pipelines for connection.

### 6.4.2 Water Infrastructure Overview

Under the same request for information in August 2019, KCTT received a full planning scheme for water across the following zones within the Town of Port Hedland: -

- Zone 1 – West End Port Hedland Town Centre
- Zone 2 – East End Urban Village Port Hedland Town Centre
- Zone 3 – Wedgefield Industrial and Logistics
- Zone 4 – Airport and Surrounds
- Zone 5 – Eastern Gateway
- Zone 6 – South Hedland East
- Zone 7 – City Centre (South Hedland)
- Zone 8 – South Hedland West
- Zone 9 – Lumsden Point Light Industrial Area

This information is shown in Figure 19.

*Refer to Figure 19 – Water Infrastructure*

This planning shows a detailed analysis of current and future requirements as planned today by the Water Corporation for the whole of the Port Hedland district.

The Water Corporation manages water under the East Pilbara Water Supply Scheme from groundwater reserves at Yule and De Grey. This scheme allocation currently produces 13.5 GL/yr with a limit of up to 20.5 GL/yr. The Pilbara Groundwater Allocation Plan (2013) forecasts a water drawdown requirement of 29 GL/yr based on present per annum development rates for residential and commercial / industrial landholdings to 2031. The Water Corporation completed upgrade works to water storage tanks and water mains in Port Hedland and South Hedland.

### 6.4.3 Power Infrastructure Overview

Power services in Western Australia north of Geraldton are managed by Horizon Power via the North West Interconnected System (NWIS), covering an area of approximately 400 kilometres from east to west and 350 kilometres from north to south servicing communities such as Dampier, Wickham, Pannawonnica, Paraburdoo and Tom Price through the Pilbara Iron (Rio Tinto) network and the communities of Port Hedland, South Hedland, Karratha, Roebourne and Point Samson through the Horizon Power network.

Port Hedland is supplied via a network of 66 kilovolt (kV) overhead distribution lines that extend from substations in Port Hedland, South Hedland and Wedgefield. These substations are fed from the 150mW South Hedland power station located within Boodarie Strategic Industrial Area. The South Hedland power station was commissioned in 2017 and is contracted to supply power to Horizon Power and Fortescue Metals Group.

Horizon Power also completed the Roy Hill Transmission Project in 2018 to increase the efficiency of the NWIS. Roy Hill Transmission is a 25mW power station which services the Roy Hill port facility in Port Hedland. The Horizon Power network includes a series of main transmission lines covering almost 5 kilometres and incorporating a connection between the 150mW South Hedland power station and the Roy Hill power station.

The Port Hedland Alinta Energy Power Station is also located in Port Hedland in two locations (Port Hedland and Boodarie) and generates 210mW (gas and distillate) of power. Alinta Energy also owns and operates three high

voltage transmission lines which connect the facilities at Boodarie and Port Hedland as well as the Horizon Power owned NWIS. This system provides peak power as required by industry.

#### 6.4.4 Stormwater Drainage Infrastructure

Throughout most parts of Port Hedland, South Hedland, Wedgefield and Boodarie, lots drain generally towards road networks with roads grading to kerb openings and then into a network of open drains. A minority of locations include piped stormwater drainage networks. Further, this type of drainage system is supported by DWER for projects in the northwest due to:

- Areas with low changes in topography don't lend themselves to gravity-based drainage systems;
- Areas such as the north-west and Port Hedland that exhibit low frequencies of storm events have significant issues with the formation of sediments in piped drainage systems.

Therefore, the most appropriate system for the majority of drainage design solutions is to initially utilise kerbed roadways as the first conveyor of overland flows, with kerb openings directing water into open drains. At locations where roads cross these open drains, the usage of large box culverts and bridge structures is favoured over circular drainage culverts due to the issues with sedimentation and also safety.

Existing open drains throughout the study area are generally 1 to 2 metres deep, with widths of 2 to 4 metres and are trapezoidal in shape. The longitudinal grades of the open drains are typically flatter than 0.5% in grade. Photographic evidence was supplied and it was noted in the GHD South Hedland Flood Study that there a number of culvert structures in South Hedland that have issues with high levels of sedimentation and / or debris. This type of lack of maintenance can have a major impact on the hydraulic capability and capacity of a drainage system and cause localised flooding and / or scour and erosion damage to existing open drains and adjacent to culvert crossings. Where grates are used (to improve safety and prevent access into the culverts by young children and adults) debris can be captured against the grating, therefore impacting the capacity of the drainage culvert. This build

up can also produce further issues with the accumulation of sediment, as sediment build ups tend to occur where flow velocities are limited.

Of further importance, a large number of areas proposed for future urban and industrial expansion contain either low points in the drainage system, networks of existing open drains or are adjacent to existing drainage reserves. The impact of these drainage networks and reserves on the overall proposed urban and industrial expansion is very important and will determine important items for the development of land such as future required building pad levels and roads for egress during major flood events to ensure safety from flooding.

#### 6.4.5 Telecommunications Infrastructure

Telecommunication services are generally provided by Telstra and NBN for large-scale developments in rural areas. The development of major infrastructure for future expansion is usually managed during the structure planning and the subdivision stage.

#### 6.4.6 Gas

There are no reticulated gas services in the Town of Port Hedland and business and residents rely on gas bottles as required.

### 6.5 Transport

#### 6.5.1 Roads

Port Hedland is served by a primary and regional distributor road network that includes North West Coastal Highway, Great Northern Highway and Wilson Street. The North West Coastal Highway links Port Hedland to Geraldton, while also providing access to Karratha, Exmouth and Carnarvon. The Great Northern Highway connects Port Hedland to Broome in the east and Newman and Perth to the south. Access between the localities of Port Hedland and South Hedland is provided via Wilson Street.

The Great Northern Highway realignment project delivered by John Holland and Main Roads Western Australia (MRWA) was completed in 2014. The aim of the project was to improve road safety by allowing heavy vehicles to bypass established areas in the town, reducing road

train incidents and local traffic, improving access to new port and harbour areas and improving traffic flow between Port Hedland and South Hedland. The project delivered approximately eight kilometres of new road; a major interchange at the Broome turn-off, enabling uninterrupted flow for local traffic over Great Northern Highway; a new intersection with Utah Point Road to provide access to the western port area; a new link to South Hedland; and a new road bridge over the BHP rail line.

The proposed Roy Hill Bridge is privately funded by Roy Hill Iron Ore and will replace the existing level crossing along Great Northern Highway. The current level crossing is located approximately 25 to 30 kilometres south-west of Port Hedland. The key benefits of the project include improved safety along Great Northern Highway, improved traffic efficiency and economic advantages. Construction of the bridge was completed in early 2019.

### Traffic Data

Table 15 on the following page shows the most recent traffic data available within the Town of Port Hedland local government area. Data was collected from the Main Roads WA database and the Town of Port Hedland database. As can be seen from the table below, the majority of traffic counts can be deemed outdated (older than 3 years at the time of reporting). The majority of primary network is characterized by high heavy vehicle counts.

Table 15 – Traffic Data

Road Name	Location of Traffic Count	Vehicles Per Day (VPD)	Vehicles per Peak Hour (VPH)				Heavy Vehicle % <i>If HV count is Not Available, are HV likely to be in higher volumes than generally expected?</i>	Date of Traffic Count
			AM Peak Time	AM Peak VPH	PM Peak Time	PM Peak VPH		
Anderson Street	Between Short Street and Darlot Street (Westbound) *	1,548	08:00 – 131		12:00 – 125		7.4%	May 2017
Buttweid Road	Between Flashbutt Yard and Great Northern Highway *	596	05:00 – 41		17:00 – 62		22.9%	Jun 2017
	South of Great Northern Highway *	725	05:30 – 46		16:45 – 80		18.1%	2018
Cajanus Road	N/A	7,707	06:00 – 630		17:00 – 744		23.5%	Sep 2010
Cooka Point Drive	North of Tindale Street	3,738	07:00 – 335		17:00 – 360		11.2%	Jun 2016
Dalton Road	N/A	2,456	07:00 – 172		17:00 – 189		21.1%	Sep 2010
Forrest Circle	South Hedland N/A *	7,308	11:00 – 473		17:00 – 612		15.3%	Feb 2013
Great Northern Highway	East of Madigan Road **	1,181	11:00 – 84		16:00 – 84		54.4%	2018
	East of Utah Point Road **	3,214	05:15 – 230		16:45 – 215		33.6%	2017
	South of Port Haven Village Access Road **	2,549	05:15 – 204		17:15 – 237		30.0%	2015
	South of Port Hedland Airport Access Road **	9,124	07:45 – 676		17:00 – 799		15.2%	2015
	East of Wilson Street **	4,750	05:45 – 384		17:30 – 437		27.7%	2014

Road Name	Location of Traffic Count	Vehicles Per Day (VPD)	Vehicles per Peak Hour (VPH)				Heavy Vehicle % <i>If HV count is Not Available, are HV likely to be in higher volumes than generally expected?</i>	Date of Traffic Count
			AM Peak Time	AM Peak VPH	PM Peak Time	PM Peak VPH		
Hamilton Road	South of Great Northern Highway **	5,389	05:30 – 676		17:30 – 629		20.1%	2014
	North of North Circular Road **	4,226	05:45 – 346		16:45 – 397		13.7%	2009
Harwell Way	Felkeper Street to Munda Way	598	11:00 – 39		15:00 – 63		17.9%	Dec 2004
Lashley Street	Moorambine Street to Trig Street	300	10:00 – 23		15:00 – 25		27.7%	Nov 2004
Madigan Road	500m east of Great Northern Highway *	52	10:00 – 6		16:00 – 3		3.6%	Sep 2004
McGregor Street	West of Crawford Street **	2,159	10:45 – 182		16:15 – 189		10.8%	2018
Moorambine Street	Between Peawah Street and Draper Street	967	11:00 – 76		16:00 – 71		25.0%	Mar 2016
	Between Pinga Street and Peawah Street	1,521	10:00 – 87		16:00 – 100		30.1%	Mar 2016
	East of Pinga Street	1,327	09:00 – 90		15:00 – 101		17.9%	Feb 2017
Moore Street	West of Jacoby Street **	106	09:15 – 13		12:30 – 11		22.6%	2018
Murdoch Drive	East of Captains Way Roundabout *	4,934	11:00 – 313		16:00 – 419		7.9%	Sep 2016
North Circular West	East of Hamilton Road *	4,948	11:00 – 313		17:00 – 439		11.4%	Apr 2017
	East of Parker Street *	5,909	11:00 – 376		17:00 – 515		3.4%	Apr 2017
Pinga Street	South of Hemisite Drive	6,263	06:00 – 541		16:00 – 462		N/A	Dec 2016
	South of Manganesse Street	7,479	06:00 – 549		16:00 – 549		N/A	Dec 2016
	North of Pinnacles Street	4,005	06:00 – 291		16:00 – 314		20.5%	Jan 2017
	South of Great Northern Highway	4,092	07:45 – 285		16:30 – 279		29.1%	2015
Powell Road	West of Hamilton Road **	2,260	05:00 – 336		17:15 – 319		20.2%	2015
	East of Hamilton Road **	4,991	05:45 – 404		16:45 – 469		32.8%	2009
	West of Pinga Street **	4,191	05:45 – 357		16:30 – 368		19.4%	2009
	East of Pinga Street **	9,191	08:45 – 691		16:30 – 840		29.2%	2012
Robinson Street	East of Thompson Street *	805	07:45 – 41		17:00 – 61		7.8%	2018
Schilliman Street	East of Pinga Street	1,495	08:00 – 118		16:30 – 122		11.0%	Feb 2017
Utah Point Road	Between Peawah Street and Yennu Street	992	06:00 – 83		17:00 – 69		38.0%	Mar 2016
	West of Great Northern Highway **	3,628	05:15 – 356		17:15 – 354		41.1%	2015
Wallwork Road	South of Great Northern Highway *	12,052	06:00 – 1,013		17:00 – 1,063		N/A	Mar 2011
	South of Great Northern Highway *	16,449	07:30 – 1,151		16:30 – 1,582		15.8	2011
	South of Quarry Road **	8,427	06:00 – 731		16:45 – 747		16.9%	2012
	South of Pinga Street *	10,574	07:30 – 738		18:30 – 987		11.0%	2016
Wilson Street	South of Cooke Point Road **	11,722	07:30 – 887		17:00 – 1,089		12.3%	2018
	West of Short Street **	5,986	05:15 – 831		17:00 – 804		16.6%	2018
	East of Short Street **	5,596	11:30 – 442		12:00 – 434		19.7%	2016
	North of Great Northern Highway **	11,605	06:45 – 867		15:45 – 1,059		11.7%	2016
	West of Cooke Point Road **	9,167	07:45 – 673		17:15 – 808		15.2%	2015

\*Note: These traffic counts were obtained from the Town of Port Hedland.  
\*\*Note: These traffic counts were obtained from the Main Roads WA Traffic Map

### Crash Data

Main Roads WA provide crash data for a rolling 5-year period.

In the current reporting period (01/01/2014 - 31/12/2018), 606 incidents were reported within the Town of Port Hedland local government area.

As per the image below, 15 fatal crashes occurred within this time frame and a total of 146 casualty crashes (involving injury of humans). Approximately 75% of fatality crashes occurred during daylight hours on dry surface. Only 25% of fatality crashes occurred at an intersection and more than 50% of fatality crashes occurred on Great Northern Highway.

Period of crash data collection: 01/01/2014 - 31/12/2018

Road / Intersection Name	SLK	Functional Classification	Road Hierarchy	Speed Limit	Crash Statistics			
					No of KSI Crashes	No of Medical Attention Crashes	No of PDO Major Crashes	No of PDO Minor Crashes
Great Northern Highway	1602.9 - 1611.2	Inter Capital City Highway	Primary Distributor	80kph	0	1	2	1
Wilson Street (Port Hedland Road)	0.00 - 10.38	Urban Highway / Inter Capital City Highway	Primary Distributor	80kph / 90kph	4	1	11	3
Great Northern Highway / Powell Road	N/A	Inter Capital City Highway / Rural Local Road	Primary Distributor / Regional Distributor	80kph / 80kph	1	0	0	0
Great Northern Highway / Pinga Street	N/A	Inter Capital City Highway / Rural Local Road	Primary Distributor / Local Distributor	80kph / 70kph	1	0	1	0
Hamilton Road / North Circular Road West	N/A	Rural Local Road / Rural Local Road	Local Distributor / Regional Distributor	50kph / 80kph	0	0	1	4
Hamilton Road / Forrest Circle	N/A	Significant Urban Local Road / Rural Local Road	Local Distributor / Local Distributor	50kph / 60kph	0	0	3	1
Powell Road / Hamilton Road	N/A	Rural Local Road / Rural Local Road	Regional Distributor / Regional Distributor	80kph / 50kph	0	4	4	1
Powell Road / Pinga Street	N/A	Rural Local Road / Rural Local Road	Regional Distributor / Local Distributor	80kph / 70kph	1	0	3	1
Wilson Street (Port Hedland Road) / Gray Street	N/A	Urban Highway / Rural Local Road	Primary Distributor / Access Road	90kph / 50kph or State Limit	1	0	0	0
Wilson Street (Port Hedland Road)	N/A	Urban Highway / Rural Local Road	Primary Distributor / Local Distributor	90kph / 80kph	1	1	1	0
Road / Cooke Point Road								
Wilson Street (Port Hedland Road) / McGregor Street	N/A	Urban Highway / Significant Urban Local Road	Primary Distributor / Local Distributor	80kph / 60kph	0	0	3	2
Wilson Street (Port Hedland Road) / Short Street	N/A	Urban Highway / Rural Local Road	Primary Distributor / Local Distributor	70kph / 50kph	0	0	2	0
Wilson Street (Port Hedland Road) / Hardie Street	N/A	Urban Highway / Rural Local Road	Primary Distributor / Access Road	70kph / 50kph	0	0	2	1

Figure 20 - Crash severity distribution - Town of Port Hedland

Current data shows that less than half crashes occurred at the intersection (42%), while 58% of all recorded crashes occurred mid-block.

While less than half crashes occurred at the intersection, distribution of types of crashes shows that right turn movements are the most problematic at the intersections.

Approximately 25% of incidents involved a utility vehicle while less than 10% of incidents involved a larger heavy vehicle (truck, road train, etc)

Main Roads WA data base shows sections of road and intersections which are prequalified for the Black Spot Program (have 3 or more casualty crashes within the reporting period). These are listed below:

Table 16 – Intersections currently prequalified for Black Spot Consideration

Ranking	Intersection Name	Total Crash Count	Casualty Crash Count
1	Powell Rd & Hamilton Rd	9	4
2	Pinga St & Moorambine St	7	1
3	Hamilton Rd & North Circular Rd West	5	0
4	Powell Rd & Pinga St	5	1
5	Murdoch Dr & Forrest Cir & Wise Tce & Daylesford Rd	5	0
6	Port Hedland Rd & Mcgregor St	5	0
7	Murdoch Dr & Captains Wy	4	2
8	Hamilton Rd & Forrest Cir	4	0
9	Port Hedland Rd & Cooke Point Dr	3	2
10	Hamilton Rd & Hedditch St	3	1
11	Forrest Cir & Cottier Dr	3	1
12	Port Hedland Rd & Hardie St	3	0

### Restricted Access Vehicle (RAV) Network

The Town of Port Hedland has an extensive Restricted Access Vehicle Network enabling a freight-based economy. Great Northern Highway, Wilson Street, Pippingarra Road, Marble Bar Road and Utah Road form key portions of the RAV 10 network enabling road trains up to 53.5m in length to travel through the Pilbara and access port facilities. In addition to this, there are several concessional networks approved across this corridor. In this section, Great Northern Highway is also a High-Wide Load corridor.

The majority of roads in Wedgefield belong to the RAV 10 network. Detailed route assessment is required in this case as it is evident that in some locations overhead power lines restrict access to road trains, and road widths and intersections are non-compliant with MRWA standards.

Wallwork Road, Altitude Road and a number of roads branching off Altitude Road are approved as RAV 2 network allowing access to B-Double trucks not exceeding 27.5m in length.

With new industrial areas being planned, new roads will need to be added to the RAV network.

There is potential that a portion of Great Northern Highway in the vicinity of PHIA may be realigned in the future. Main Roads WA stipulated this is just an option explored and that there is no certainty if this project will proceed any further.

### Heavy Vehicle Access Strategy

The Town has commissioned the preparation of a Heavy Vehicle Access Strategy (HVAS) to address current deficiencies in the RAV network and potential funding mechanisms to support future upgrades. The HVAS identifies required enhancements to the existing RAV network to allow it to function as designated as well as opportunities to expand the existing network.

Other key recommendations of the HVAS include:

- develop a Town traffic monitoring program;
- develop an asset register and asset management plan to document asset condition to inform future maintenance and cost sharing arrangements;
- progress land use permissibility changes to the established part of Wedgefield to address the deficient RAV network and land use conflicts;

- potentially reclassify the RAV network in the established part of Wedgefield upon land use transition over time to light industry;
- develop and implement an engagement plan with transport industries in Wedgefield;
- develop a funding strategy to upgrade heavy vehicle road network and its assets;
- evaluate mining tenements and Crown leases and negotiate road maintenance with industry on impacted roads; and
- monitor industry development and consider developing a strategy for application of Smart Technologies in freight.

## 6.5.2 Rail

There are four (4) privately operated freight railway lines that connect mining operations to port facilities in Port Hedland. Two railway lines are owned and operated by BHP Billiton: the Goldsworthy Line and the Mount Newman line. The Goldsworthy Line connects Finucane Island to Yarrrie (200 kilometres east of Port Hedland) and is 208 kilometres long. The Mount Newman line connects Newman to Nelson Point and is 426 kilometres long. Fortescue Metals Group owns and operates a 280-kilometre railway line which connects its mining operations at Cloud Break to its port facilities at Anderson Point. Roy Hill owns and operates a 344km stretch of standard gauge, single line, built to transport iron ore from the Roy Hill mine to the dedicate Roy Hill stockyard area within the Port Hedland port.

There are no public freight or passenger railway lines that operate in Port Hedland.

## 6.5.3 Port

The Port of Port Hedland is the world's largest bulk export port, exporting approximately 518 million tonnes in the 2017-18 financial year. Iron ore exports comprise almost all trade through the port (approximately 98%).

At present there are a total of 19 berths within Port Hedland harbour, with 4 berths designated for public use and the remainder in the private ownership of resource-industry giants – BHP, Fortescue Metals, and Roy Hill Infrastructure.

Recent studies by the PPA indicate new and increasing trade such as lithium, livestock and ammonium nitrate will lead to congestion across Pilbara Ports Authority's three common-user berths at the Port of Port Hedland in the short-term.

Expansion of trading goods in lithium (and related products) and livestock is likely to require expansion of port facilities.

The proposed Lumsden Point General Cargo Facility in Port Hedland will be designed to facilitate increased trade growth of general cargo and mineral concentrates across the common-user berths. The proposed facility is located in the inner harbour and will capitalise on land reclaimed during previous port expansion projects, as well as the realignment of the Great Northern Highway in 2014. The proposed development will consist of two new general cargo wharves, lay-down areas and a 95 ha logistics hub. Land remediation works and initial dredging have commenced to provide a 35 ha area for development.

At present there are no passenger terminals in Port Hedland although many strategic plans suggest that this line of trade should be developed.

#### 6.5.4 Other Sea Transport

Recently a Master Plan for the Spoilbank Marina was developed by the Town of Port Hedland and Department of Transport. This plan will see recreational boating separated and physically removed from port facilities.

#### 6.5.5 Aviation

The PHIA is located in the locality of Port Hedland, between the South and Port Hedland Town centres. The Town has recently leased the PHIA to a consortium comprising AMP Capital and Infrastructure Capital Group. As part of this lease arrangement, the consortium has committed to spend \$40 million over the next five years on upgrades to the airport.

The PHIA provides for regular passenger transport and general aviation air services. PHIA consists of two runways, one at 2,500 metres long and the other at 1,000 metres long, and an interconnecting taxiway.

Up to 50 commercial flights are offered per week from PHIA, with direct services to Bali, Brisbane and Perth. In 2017, there were over 4,600 aeroplane movements and 350,000 passenger movements from the airport. PHIA also provides for international freight services, charter and flight training facilities, a dedicated heliport facility and the region's Royal Flying Doctors'

Service. The main driver of the passenger market for Port Hedland is the mining sector and in particular, iron ore and base metals.

Airlines currently operating regular flights are: Qantas, Qantas Link and Virgin Australia. Furthermore, charter flights are offered by Skippers, Alliance Airlines, Polar Aviation and Aviair. Tourist scenic flights and aviation training are offered by Polar Aviation and Aviair.

PHIA features long and short-term parking facilities. Charter buses and car rentals allow movement of passengers to and from the airport. Introducing a public transport line, connecting the PHIA to key nodes in Porth Hedland and South Hedland could be considered as a possibility.

The PHIA Master Plan 2018-2038 establishes a vision for the upgrade to PHIA infrastructure as well as establishing a precinct-based approach to future land use and development of vacant land within the PHIA grounds which are not required for aviation operational requirements. The Master Plan establishes the following vision for PHIA:

**“PHIA Op Co has a vision for PHIA to be a leading regional Australian airport and a modern, well-serviced airport which is a major domestic and international gateway airport for Western Australia. It will be the gateway to the Pilbara and a major intermodal hub”.**

The Master Plan identifies a staged delivery of key PHIA infrastructure to accommodate forecast growth in flights and customers.

The Master Plan establishes six land use precincts as follows:

- Airside Precinct (309.4 ha)
- Northern Precinct (107.6 ha)
- Terminal and General Aviation Precinct (24.5 ha)
- Freight Precinct (8.4 ha)
- Highway Precinct (89.3 ha)
- Airport Industrial Park Precinct (278.3 ha)

Recent upgrades pertain to addition of runway and upgrade of terminal facilities. Port Hedland Aviation Authority is looking to expand air freight movements as passenger travel is highly dependent the on economic outlook.

### 6.5.6 Public Transport

The Public Transport Authority (PTA) manages TransRegional, which provides intra town and inter town public bus services in regional Western Australia. There are currently three bus routes that serve the Port Hedland townsite, operated under the 'TransHedland' brand by a private contractor.

Route 870 operates between the localities of Port Hedland and South Hedland. The route services the west end and east end of Port Hedland, before traveling south along Wilson Street and Great Northern Highway and terminating at the South Hedland town centre. Routes 871 and 872 are circular routes that services South Hedland, operating in a clockwise and anticlockwise direction respectively. During weekdays, services operate at a frequency of every one-to-two hours. On Saturdays, services operate at a decreased frequency of every four hours. No services are operated on Sundays and public holidays.

Since September 2018, additional services for routes 870 and 871 have been operated as part of a trial conducted by the PTA. The trial also involves a route change for route 870, with selected weekday services deviating through the Wedgefield industrial estate.

In addition, the Town is serviced by three inter town public bus routes, operated by private contractors on behalf of TransRegional. The Perth to Broome route makes stops at Port Hedland and South Hedland, as well as Geraldton, Carnarvon, Exmouth and Karratha. There are also two Perth to Port Hedland routes; one operates via Tom Price, with the other via Meekatharra. These routes operate up to three times weekly in each direction.

The Port City Growth Plan identifies opportunities for the expansion and diversification of public/community transport offerings within the Town, particularly with regard to meeting the needs of the local Indigenous population. The Port City Growth Plan identifies a need to increase service provision and improve connectivity between residential areas and centres of activity and employment, including the Wedgefield industrial estate and Boodarie SIA.

### 6.5.7 Cycling Facilities

Port Hedland features modest cycling facilities. A Cycling Master Plan was prepared in 2008 and some of the proposed items were actioned. Given the change in standards, some of the paths which were constructed per recommendations from the Master Plan as shared paths, do not comply with current standards for shared paths.

Port Hedland does not feature dedicated cycling lanes on any of the roads. Most notable, shared paths are placed along the coastline (along Sutherland Street, Counihan Crescent), POS areas and along key distributor roads in South Hedland (Hamilton Road, Forest Circle etc.)

A proposed shared path connecting South Hedland and Port Hedland along Wallwork Road, Great Northern Highway and Wilson Street is only partially constructed – it currently connects South Hedland to the access road to Dampier Salt facilities.

Similar to the pedestrian network – the cycling network generally lacks continuity and permeability.

It is understood that this issue will be addressed through the Town's preparation of the Pilbara Cycling Strategy 2040, which will guide the provision of new key cycle linkages and infrastructure.

### 6.5.8 Pedestrian Access

Most streets in Port Hedland and South Hedland feature a pedestrian path on one side. Pedestrian paths are mostly placed near carriageways, while some sections meander closer to the lot boundary. Often, existing paths are not continuous, even on the same block. This lack of connection limits permeability of the network.

Many paths in Port Hedland do not appear to feature a pram ramp, or the existing pram ramp is not up to current standards of accessibility (too steep, insufficient landing space).

Wedgfield does not have pedestrian or cycling facilities.

Walkscore rates Port Hedland as a completely car-dependent neighbourhood where different neighbourhoods score between 25 and 38 points out of 100 within this category.

It is our understanding that Port Hedland is looking to develop tourist walking routes along various trails. A Trails Master Plan has been prepared and endorsed to guide the provision of walking trails; however, to date this infrastructure has not been provided.

Formal pedestrian access to the coast is quite limited therefore many informal trails were developed over time.



# 7. Key Issues

## 7.1 Environmental Considerations

### 7.1.1 Climate Change

Research from the CSIRO indicates that the climate is changing at a rate significantly faster than that experienced throughout geological history and that while climate varies naturally in location and time, the changes currently being experienced, and that are expected over the next 100 years, are occurring at a rate more rapidly than previously adapted to. The term ‘climate’ applies to average weather conditions over longer time periods and includes consideration of temperature, rainfall, sea level, ocean acidity and salinity, solar radiation and water vapour in the atmosphere, while ‘weather’ is the brief, rapidly changing condition of the atmosphere influenced by the movement of air masses.

As the climate changes, the Town is likely to experience:

- Increased rates of evaporation, between 3 to 6.5%.
- Annual rainfall decline by 1 to 2%, with reduced rainfall in the western Pilbara.
- Increased extreme summer storms, including cyclones, resulting in a higher incidence of flash flooding.
- Prolonged dry periods, likely to reduce vegetated groundcover and increase the risk of water and wind erosion.
- Increased risk of bushfires, between a 27 to 331% increase in severe fire days, dependent on the rate of greenhouse gas emissions (DAFWA 2016).

These changes are likely to result in:

- Increased vulnerability of coastal infrastructure due to sea level rise, including port facilities.
- Increased degradation of infrastructure and material due to higher temperatures, altered soil moisture and extreme events (i.e. flash

flooding).

- Increased detrimental health impacts due to higher temperatures, increase in insect-borne and water-borne diseases and extreme weather events (such as flash flooding).
- Reduction in groundwater resources, increased soil erosion and loss of vegetation.
- Reduction in livestock productivity due to heat stress.

#### Recommendations / strategies

- Support the development of appropriate building design to improve heating and cooling through solar passive design, ventilation and use of appropriate materials.
- Ensure infrastructure is designed to minimise the need to replace it regularly as a result of increased temperatures and extreme weather events. This will require consideration of the type of material and the appropriate placement of infrastructure.
- Ensure appropriate planning controls are implemented, such as restriction of new development behind the 100-year erosion line, to ensure that future sea level rises are accounted for.
- Bushfire planning is interrelated with climate change and is a risk that warrants a strategic approach across the Town.
- Global warming has the potential to influence and impact on agricultural practices which may alter practices on pastoral land.

### 7.1.2 Coast and foreshores

The coastline is a significant asset to the Town, and forms an important community asset, through social, economic and environmental benefits. However, the narrow headland where the Port Hedland townsite is located is exposed to erosion hazards, with low-lying areas subject to coastal erosion and inundation (as a result of tidal influences and storm surges). These hazards pose a threat to ongoing social and economic activities, particularly the operation

of the port, which is the largest port (by tonnage) in Australia. A Coastal Vulnerability Study was prepared by Cardno (2011) to inform future planning. Additionally, a CHRMAP was prepared by GHD (2019) to assist with coastal management decision making, with recommended adaptation actions to address inundation and erosion risks.

The coastal vulnerability study and CHRMAP identified that coastal erosion and flooding present an immediate level of risk to assets and values, particularly to:

- Coastal residential properties in an area identified as 'East Port Hedland', which includes the race track, the old WWTP area and the area to the west of Pretty Pool, which includes areas zoned as 'Urban Development' in the scheme (at risk of inundation in the immediate term) (Cardno 2011).
- Coastal residential properties in the West End (vulnerable to erosion in a possible and rare event) (GHD 2019).
- Public infrastructure (playgrounds) within the Cemetery Beach foreshore (vulnerable to erosion in a rare event) (GHD 2019).
- Public beaches, roads, and residential properties at the western end of Sutherland Street (vulnerable to erosion in the rare event) (GHD 2019).
- Public beaches, roads, and residential properties on Barker Court, near Goode Street (vulnerable to erosion in the rare event) (GHD 2019).
- The existing Port Hedland town centre within the West End (vulnerable to coastal flooding in all events) (GHD 2019).

As part of the CHRMAP process, it was identified that a primary planning response to enable retreat from the vulnerable coastal area is through expansion of the coastal foreshore reserve. The current foreshore reserve in Port Hedland, with the exception of Pretty Pool, is insufficient in width to maintain the social and environmental functions of the reserve once erosion risk has been allowed for (GHD 2019). Therefore, managed retreat cannot occur in Port Hedland without impacting on land use outside the current foreshore reserve.

The retreat zone, as identified by GHD, nominally recommends a long-term (100-year) erosion hazard area plus an additional 20 metres as a future foreshore reserve. This takes into

account that there is adaptive capacity within the foreshore for restabilisation following a rare event to maintain environmental values, and 20 metres is generally sufficient for public facilities, including playgrounds, access and parking outside of the hazard area (GHD 2019). The long-term coastal foreshore reserve should be identified in the LPS, with triggers for implementation based on the recommendations of the CHRMAP. The erosion hazard line is identified in Figure 22.

*Refer to Figure 22 - Port Hedland townsite long-term erosion hazard line as identified in the CHRMAP (GHD 2019)*

If interim protection is implemented in the current planning horizon, then immediate expansion of the coastal foreshore will not be required with interim land use and development managed in accordance with the recommended Special Control Area for the retreat zone. However, when following the design life of interim protection, risk again becomes intolerable, and the coastal foreshore reserve should be extended as a trigger for managed retreat, including land acquisition. Following acquisition of land within the foreshore reserve, capital investment will be required for decommissioning assets and re-establishing the area for coastal foreshore purposes (GHD 2019).

Port Hedland's coastal foreshore reserve is currently a 'Parks and Recreation' reserve in the local planning scheme. Future iterations of the Town's local planning scheme will be required to be consistent with model scheme provisions set out in the *Planning and Development (Local Planning Schemes) Regulations 2015*. None of the model reserve types set out in the model scheme provisions include objectives that articulate the importance of coastal risk management within foreshore reserves along the coast. In preparing the LPS, the Town should consider the use of a Special Purpose Reserve for the coastal foreshore area alongside the Port Hedland townsite or include additional reserve objectives that recognise the importance of coastal hazard risk management to guide use and development of these areas (GHD 2019).



Figure 22 - Port Hedland townsite long-term erosion hazard line as identified in the CHRMAP (GHD 2019)

**Recommendations / strategies**

The recommendations and strategies below are based on the CHRMAP prepared for Port Hedland (GHD 2019).

- Define the exact area that the retreat zone will include. The CHRMAP nominally identifies this as the zone that should be calculated based on the allowance for physical processes (e.g. erosion), with 20 metres to provide space for additional facilities.
- Introduce policy measures that require strategic planning and rezoning proposals to be assessed against State Planning Policy 2.6 Coastal Planning as if it were new development, including ceding of coastal foreshore reserve (i.e. avoiding any new development within the retreat zone, with the exception of temporary development).
- Avoid density increases or intensification of land uses (including subdivision) within the retreat zone.
- Consider sites of high density in the retreat zone that might be appropriate for a reduction in density and development potential.
- Plan for infrastructure provision in a way that avoids placing future infrastructure within, or immediately adjacent to, the physical processes allowance, and avoid permanent linear servicing infrastructure (including roads) parallel to the coast, which may potentially become threatened assets in longer-term planning horizons.
- Consider implications for future development for land identified as being prone to coastal processes by the recently completed CHRMAP.
- Identify funding mechanisms / processes for the acquisition of land within the managed retreat zone over the longer term.

### 7.1.3 Environmental Assets

A large proportion of the coastline within the Port Hedland region is reserved for 'Conservation Recreation and Natural Landscapes' within the current scheme. Within the scheme, there is limited information pertaining to land uses that may be precluded or allowed within these areas. This is a consideration for the strategy, as some of these reserved areas of the coast are identified in the Port City Growth Plan as investigation areas for tourism and recreation (including camping and fishing opportunities).

The key environmental assets within the Town include mangroves, nesting beaches for green and flatback turtles, several threatened ecological communities, a range of threatened and priority flora and fauna, and several rivers, including two that contribute to potable water, the De Grey and Yule Rivers. Protection of these environmental assets can be included through the Town scheme, in addition to State Government planning tools. Future development should consider the Semeniuk report prior to any development occurring in areas identified as significant wetlands, as significance ranges from regional importance to international importance.

#### Recommendations / Strategies

- Provide greater definition and clear aims and objectives in the scheme text for the 'Conservation Recreation and Natural Landscapes' reservation. There is currently no defined terminology within the scheme, with no explanation as to what land uses are permitted within these areas. Providing greater definition of, and aims and objectives for, these areas will allow for better determination of the protection afforded to the environmental assets within these areas, including mangroves, and whether further protection is required.
- Protection of the known turtle nesting areas within the Port Hedland townsite area. This includes around Cemetery Beach and Pretty Pool Beach, to ensure that nesting turtles are not impacted by light pollution. This may include a buffer area surrounding known nesting sites to ensure that future development in these buffer areas are limited to low-light impacts.

- This will require a methodology to easily update buffer zones; however, as new nesting locations may occur outside of the identified ones (due to the time it takes to amend a scheme, this may be unviable). Care for Hedland has a close working relationship with the Town and has promoted reduced streetlights during nesting season (Town 2017).
- Undertake assessment of wetlands identified by Semeniuk as significant, to provide an up-to-date assessment of these areas to guide future development and to afford appropriate protection for these areas.

### 7.1.4 Stormwater Management

Currently there is no overarching framework (such as a Regional Water Management Strategy) for new development to consider when preparing supporting documents for structure plans/subdivisions/developments. As the climate changes and different processes impact on water availability and runoff, it is important to have an overarching guidance document for new development and industries that considers the requirements of the Town.

#### Recommendations / Strategies

- Prepare a Regional Water Management Strategy, to assist in ensuring planned drainage outcomes are applied across precincts.

## 7.1.5 Water Supply

Groundwater is an important source of water for potable and non-potable water within the Town. The quality of groundwater varies according to the underlying soil and geology and can have high salinity but can also be detrimentally affected by contamination from minerals, chemicals, erosion and harmful microorganisms. Two PDWSAs are located within the Town, the De Grey Water Reserve and the Yule River Water Reserve. In general, PDWSAs are sensitive to contamination, which can originate from a range of activities, including urban development, fuel handling and storage, chemical spills, inappropriate management and treatment of effluent and grazing.

### Recommendations / Strategies

- All priority source protection areas in Public Drinking Water Source Areas should be shown as Special Control Areas in the local planning scheme in accordance with the recommendations of any relevant land use and water management strategy published by the WAPC, or any water source protection plan approved by DWER. The purpose of these Special Control Areas should be to:
  - o Identify the proclaimed PDWSAs. Priority 1 areas are defined to ensure the risk avoidance of pollution of the water source, Priority 2 areas are defined to ensure that there is no increased risk of pollution of the water source and Priority 3 areas are defined to manage the risk of pollution to the water source.
  - o Ensure that land use and development within each Priority area is compatible with the protection and long-term management of water resources for public water supply.
- Land uses and developments in all priority source protection areas that have the potential to impact detrimentally on the quality and quantity of public drinking water supplies should not be permitted unless it can be demonstrated that such impacts can be satisfactorily managed. In determining land uses and development proposals, the Local Government will have due regard to relevant State Government policies and the most recent DWER Land Use Compatibility Tables for Public Drinking Water Supply Areas (DoW 2016).

## 7.1.6 Air Quality

Air quality in the West End of Port Hedland has been recognised as an issue impacting amenity, with an Air Quality Risk Assessment (DoH 2016) undertaken to assess the impact that the port operations are having on residents in the area.

### Recommendations / Strategies

- Clearly define future requirements and limitations on land use and development in the West End, on the basis of an Air Quality Risk Assessment. The Air Quality Risk Assessment advocates a land use and development strategy based on a managed retreat from that area which needs to be reflected in the updated local planning strategy.
- A strategy must be introduced to manage and restrict future population growth in the dust-affected areas of Port Hedland (the closer to the port and Nelson Point, the tighter the restrictions) (DSD 2016). A long-term land use planning strategy may offer a tool for gradually moving the residential areas away from the operations area.
- Current regulatory controls for managing dust from operations at Nelson Point and Finucane Island may be aided by declaring a buffer between the port and residential areas further to the east. Air quality modelling can help define this area but should not be the sole decision-making tool used for determining the buffer boundary.
- Appropriate planning controls should be implemented to prohibit sensitive land uses and restrict population growth in the West End of Port Hedland, over land west of Lukis and McGregor Streets to the port. To give effect to this, the Western Australian Planning Commission (WAPC) will consider an Improvement Plan and Improvement Scheme designed to achieve the land use outcomes described in Recommendation 5 of the Port Hedland Dust Management Taskforce Report (detailing the location of Special Control Areas (to restrict the development of new residential and sensitive land uses) and identifying areas of future low density residential development).
- A draft Improvement Plan has been prepared, to facilitate the implementation of an improvement scheme. Once this improvement scheme has been finalised, the controls identified in the scheme will be applicable to the Improvement Scheme area (West End Precinct).

## 7.1.7 Other land uses

There are a number of emissions that are generated by industrial, commercial, rural activities and infrastructure that may exceed amenity levels considered acceptable to residential areas and other sensitive land uses (such as schools, hospitals, motels, etc.). These emissions include noise, dust, gaseous and particulate emissions and odour. Guidance of the Assessment of Environmental Factors Separation Distances between Industrial and Sensitive Land Uses No. 3 (EPA 2005) outlines the Environmental Protection Authority's position with regard to the management of emissions.

This includes:

- Avoidance of impacts.
- Minimisation of the creation and discharge of waste by industry implementing best practice.
- Ensure environmental impacts from industrial emissions are acceptable and meet the relevant regulations and health criteria beyond the boundary of the site, industrial estate or buffer area.
- The protection of sensitive land uses from industrial emissions is assisted by the identification of suitable separation distances at the strategic and structure planning stages of the land use planning process, and in the early project formulation stages in the case of individual projects.
- Where site-specific technical investigations are completed, this will provide the most appropriate guide to the separation distance that should be maintained between a particular industry and sensitive land uses, or between industrial precincts and sensitive land uses, to avoid or minimise land use conflicts.

State Planning Policy 4.1 State Industrial Buffer Policy with regards to Guidance of the Assessment of Environmental Factors Separation Distances between Industrial and Sensitive Land Uses No. 3 (EPA 2005) provides the recommended generic separation distances between sensitive land uses and industrial land uses (such as the wastewater treatment facility) in order to avoid potential conflicts between these land uses.

### Recommendations / Strategies

- Identify industrial, commercial, rural activities and infrastructure that have the potential to generate emissions that may exceed acceptable amenity levels.
- Where development is proposed to be expanded within the Port Hedland International Airport lease boundary, ensure that future land uses are compatible with the existing zoning, and that future development will not exacerbate existing contamination issues within the lease area. Any remediation action that is taken within the lease area should be in accordance with the previously commissioned site investigations, as identified within the Port Hedland International Airport Masterplan.
- Maintain separation distances in accordance with State Planning Policy 4.1 Industrial Buffer Policy and Guidance of the Assessment of Environmental Factors Separation Distances between Industrial and Sensitive Land Uses No. 3 (EPA 2005), or as identified via detailed site-specific technical investigations.

## 7.2 Economic Considerations

Industry opportunities identified through the competitive assessment are outlined in the table below. Key factors considered in the identification of industry opportunities include:

- Industries with low labour specialisation but high growth, as these industries may have areas which are underrepresented and have sufficient demand for growth;
- Industries with high labour specialisation and high growth, as these industries may have areas that can be further expanded to optimise the economic contribution of the industry;
- Prominent imports into a region, where skills and labour can be easily sourced, as this can provide opportunities for import replacement; and
- Macro-economic trends.

Table 17. Industry Opportunities for Port Hedland

Industry	Rational
<b>Mining Support Services</b>	<ul style="list-style-type: none"> <li>• Currently mining support services are a key import into Port Hedland (\$158 million in 2015-16), presenting an opportunity for import replacement.</li> <li>• Growth is anticipated to trend in line with growth in the mining industry, which is expected to increase significantly with the number of new mining projects as well as the approval of the Eliwana project and replacement of the Yandi mine with South Flank</li> </ul>
<b>Construction</b>	<ul style="list-style-type: none"> <li>• Currently Port Hedland has low labour specialisations and high growth expectations at the State level for non-residential building construction and other construction works, which provides opportunities which will prove essential for industry diversification and town development/ enhancement.</li> <li>• Construction services are a prominent import into Port Hedland (including the areas of land development and site preparation, building structure, building installation, building completion and other construction services), which provides opportunities for import replacement.</li> <li>• There are a number of construction projects planned and underway in residential construction, non-residential construction etc., which will grow demand for this industry.</li> </ul>
<b>Manufacturing (Machinery and Equipment &amp; Primary Metal Product)</b>	<ul style="list-style-type: none"> <li>• Currently Port Hedland has low labour specialisation and moderate growth expectations at the state level in this industry, which presents an opportunity for expansion.</li> <li>• Manufacturing, is a prominent import into Port Hedland, providing opportunities for import replacement.</li> <li>• Particularly, Port Hedland has the potential to support greater advanced manufacturing in terms of metal product, machinery and equipment, which would enhance the mining and construction supply chains locally.</li> <li>• Growth is anticipated to trend in line with construction and mining activity and consequent demand.</li> </ul>
<b>Rental and Hiring Services (except real estate)</b>	<ul style="list-style-type: none"> <li>• Currently Port Hedland has low labour specialisation and moderate growth expectations at the State level in this industry, which presents an opportunity for expansion.</li> <li>• Rental and hiring services are a large import into Port Hedland, which provides opportunities for import replacement.</li> <li>• Particular opportunities exist in motor vehicle and transport equipment rental and hiring and other goods and equipment rental and hiring, which are anticipated to grow with increased construction activity and hence could be expanded.</li> </ul>
<b>Healthcare and Social Assistance</b>	<ul style="list-style-type: none"> <li>• Currently Port Hedland has low labour specialisation and moderate growth expectations at the State level in this industry, which presents an opportunity for expansion. As the population in Port Hedland continues to grow, health care and social assistance will continue to become more prominent.</li> <li>• Particular opportunities exist in residential care services and medical and other health care services, both of which are vital to service community needs.</li> <li>• This industry is currently under-represented in Port Hedland, with just: <ul style="list-style-type: none"> <li>o One hospital servicing Port Hedland (Hedland Health Campus)</li> <li>o One residential care facility in Port Hedland (Karlarra House Aged Care Facility)</li> </ul> </li> <li>• This industry is anticipated to be the fastest growing in Australia by 2023, with 34% growth in regional areas (Regional Australia Institute, 2019). Regional hubs (like Port Hedland) will prove essential in servicing the healthcare demand from their catchments.</li> </ul>

## 7.2.1 Tourism

1. The following local tourism opportunities and areas of focus were identified through the review:
  - a. Development of regional and local tourism trails;
  - b. Strategies to diversify tourism accommodation;
  - c. Strategies to market existing tourism offers (i.e. turtle nesting tours, Seafarers tour, mining tours);
  - d. Local arts and culture;
  - e. Pastoral tourism opportunities;
  - f. Industrial/ mining based tourism;
  - g. Identification of coastal tourism nodes on the Strategy maps to support coastal based tourism activities and infrastructure; and
  - h. Promote region to cruise ship industry.
2. It is recommended that a Local Tourism Strategy be prepared to identify strategies and actions to leverage local tourism opportunities i.e. cruise ship industry.

## 7.3 Community Considerations

1. It is acknowledged that the Aboriginal and Torres Strait Islanders need to be engaged with and have input into decision making. It is also recognised that there needs to be specific focus on providing spaces and activities that are welcoming to the Aboriginal community.
2. Health services are seen as a fundamental priority and the challenges of addressing the needs of the ageing and the chronically ill were highlighted as areas requiring particular focus.
3. Recognition that Port Hedland and South Hedland are well-serviced by community facilities and the focus should now be on provision of more services and programs to foster a more connected and lively culture in order to bridge the gap between townships and communities.
4. There are long waiting lists for childcare and the literature review has identified the community's desire to see more childcare options established to meet demand.
5. Public open space is generally well provided for per head of capita, although the Town's POS Strategy acknowledges a slight shortfall

in South Hedland. The Town has recently adopted a number of strategies and master plans to stage the delivery of community and recreation infrastructure to cater for regional, district and local recreation requirements.

6. Some Aboriginal representatives have identified the desire to establish a substantial community garden and / or micro-agriculture venture to grow Indigenous produce and traditional food sources of the traditional owners of the land.
7. Some Aboriginal representatives have identified the need to provide a short stay camping area to meet the needs of Aboriginal groups visiting relatives and friends in the area.
8. Stakeholders generally agree that South Hedland should be the focus for commercial, civic and community services and facilities in Hedland.

## 7.4 Built Form and Infrastructure Considerations

The Port City Growth Plan was prepared at the height of the mining boom and was based on an aspirational population growth of 50,000 people by 2035. The population growth scenarios adopted to inform this Strategy forecast between 18,500 people (conservative scenario) and 27,085 people (aspirational scenario) by 2041. These population scenarios have informed planning with respect to residential land release and built form and infrastructure considerations.

### 7.4.1 Housing

1. The Land Demand Assessment undertaken within this report has identified a significant surplus of vacant zoned land to accommodate future housing within the planning horizon of an LPS (15 years). Much of the vacant zoned residential land within the Port Hedland townsite is substantially constrained and may be cost prohibitive to develop in the current market.
2. A number of sites within Port Hedland have been identified as being suitable for short to medium term residential development. These sites include the former Recreation and Detention Centres, the Telstra Tower Site, the former Wastewater Treatment Plant site and potential portions of the McGregor

Street Sporting Precinct and a portion of the Athol Street Urban Development area. These sites will be important to address the anticipated demand for new dwellings within Port Hedland, arising as a consequence of the State government's West End buy back scheme.

3. The Stables Precinct and Pretty Pool Stage 3a have been identified as longer term prospects to accommodate residential land and would be subject to further investigations to inform any rezoning and structure planning of these sites.
4. Coastal inundation within Port Hedland will require appropriate adaptation responses to new residential development at risk. Such responses may include raising development above the inundation levels.
5. South Hedland contains a substantial amount of unconstrained land suitable to accommodate residential growth. It is therefore necessary to identify a logical staged approach to the development of this land to ensure the efficient use of existing infrastructure and services and to prioritise land in proximity to existing amenity (i.e. the City Centre). Vacant infill development sites and land in proximity of the City Centre should be prioritised over other land located on the edge of the established urban area of South Hedland.
6. Crisis care housing and accommodation for aged persons have been identified anecdotally as being required to service current and future community needs.

### 7.4.2 Retail and Commercial

1. The review of various land demand assessment reports prepared in relation to the Town identifies that there is sufficient zoned land to meet retail and commercial land use needs through to 2041.
2. While there is currently an oversupply of built floorspace for retail uses, this floorspace is expected to be extinguished by 2041 (RFF, 2020). The Land Demand Assessment undertaken within this report identifies sufficient zoned land to accommodate future retail and commercial needs within the planning horizon of an LPS (15 years).
3. There is a current shortage of commercial tenancy floorspace. Many commercial uses have taken over traditional retail tenancies

as a consequence. The shortfall of commercial tenancy floorspace is projected to increase to 5,500sqm by 2041 if new floorspace is not constructed within this timeframe (RFF, 2020).

### 7.4.3 Industry

1. A review of various land demand assessment reports prepared in relation to the Town identifies that there is a total of 5,950ha of land zoned for industrial purposes (industrial, light industry, strategic industry and transport development) with only 190 ha of this land considered developed. A majority of this land relates to the Boodarie Strategic Industry precinct.
2. Approximately 200 ha of land is available within Wedgefield east of the established industrial estate. This land can cater for a range of light, general and transport industrial uses.
3. In addition to Wedgefield, the PHIA has the ability to accommodate industrial land uses that are compatible with and /or reliant on proximity to the airport. This land would need to be developed by the PHIA and offered on a leasehold basis to industrial tenancies.
4. The existing Kingsford Smith Business Park can accommodate service industry and bulky goods' uses; however, it is not proposed to expand this precinct beyond that already developed for this purpose.
5. The 'Old Wedgefield' and industrial land located within the West End of Port Hedland are considered fully developed.
6. The Boodarie Strategic Industrial precinct and associated buffer is set aside to accommodate large-scale strategic industry associated with the Port, noxious and other heavy industry. There will be significant infrastructure costs associated with the development of the Boodarie Precinct.

### 7.4.4 Servicing Infrastructure Gaps

Please refer to Table 15 for identified gaps in relation to servicing.

Table 18 – Servicing Infrastructure Gaps

Category	Comments
<b>Wastewater Infrastructure</b>	<ul style="list-style-type: none"> <li>• The Water Corporation provided wastewater planning for the Town of Port Hedland townsite only. Further planning needs to be undertaken for Wedgefield, South Hedland and Boodarie.</li> <li>• Review potential areas for expansion of residential and industrial development expansion and overlay contours to determine if new expansion areas can be serviced by gravity, require a network of pumping stations and pressure mains or need to be serviced by a combination of gravity and pressure systems.</li> <li>• Review potential areas for expansion of residential and industrial development and determine if new major headworks are required (i.e. expansion of overall system capacities).</li> <li>• Discuss with the Water Corporation recent (2017 to 2019) rates of development in Port Hedland and determine if earlier studies and the timelines of expansion of development are still on-track or if the development rate is faster or slower than that predicted and the likely impact on future infrastructure requirements.</li> </ul>
<b>Water Infrastructure</b>	<ul style="list-style-type: none"> <li>• DWER has undertaken a groundwater investigation of the West Canning Basin to cover the gap between the potential 20.5 GL/yr maximum drawdown and the anticipated required drawdown of 29 GL/yr. Further environmental assessment should be completed to determine if alternative sources of water exist (i.e. not to utilise potable water) for dust suppression purposes in Port Hedland.</li> <li>• Review potential areas for expansion of residential and industrial development expansion and overlay contours to determine if new expansion areas can be serviced by the existing network or if major headworks are required to existing water tanks, or if new water tanks are required to maintain head pressures and service qualities.</li> <li>• Review potential areas for expansion of residential and industrial development and determine if new major headworks are required (i.e. expansion of overall system capacities).</li> <li>• Discuss with the Water Corporation recent (2017 to 2019) rates of development in Port Hedland and determine if earlier studies and the timelines of expansion of development are still on-track or if the development rate is faster or slower than that predicted and the likely impact on future infrastructure requirements.</li> <li>• Discuss with the Water Corporation if there has been further progress in studies on the usage of alternative sources (non-potable water) for dust suppression purposes at the Port at Port Hedland.</li> </ul>
<b>Power Infrastructure</b>	<ul style="list-style-type: none"> <li>• Review potential areas for expansion of residential and industrial development and determine if new major headworks are required (i.e. expansion of overall system capacities).</li> <li>• Discuss with Horizon Power recent (2017 to 2019) rates of development in Port Hedland and determine if earlier studies and the timelines of expansion of development are still on-track or if the development rate is faster or slower than that predicted and the likely impact on future infrastructure requirements.</li> </ul>

Category	Comments
<b>Stormwater Infrastructure</b>	<ul style="list-style-type: none"> <li>• Consider how to incorporate WSUD measures while acknowledging the different climatic and geotechnical conditions to those in the Perth metropolitan region and generally in the southwest;</li> <li>• Confirm with the Town of Port Hedland if the recommendations relating to removal of sediment and debris from culverts and grates throughout South Hedland have been acted upon;</li> <li>• Determine whether actions have been taken by the Town of Port Hedland on inundation issues due to storm events and the potential for future ocean-borne storm surges in the West End of town;</li> <li>• Confirm if any reviews of the Wilson Street drainage pumping system have been undertaken to determine the systems' capacity and whether any likely issues in its maintenance are envisaged;</li> <li>• Determine whether actions have been taken as above on potential issues with erosion along the east end coastal interfaces at Pretty Pool, East End, Cooke Point and Spinifex Hill;</li> <li>• Determine how much of the future proposed expansion area in the east end is impacted by inundation issues and to what level the landholdings need to be raised to ensure suitable clearances to flooding;</li> <li>• Determine the zone of impact on both the West End and the east end should the Wilson Street drainage pumping system either operate with limited capacity or cease to function;</li> <li>• Confirm if storm surge walls / barriers / protective measures are required in the Port Hedland Town Centre;</li> <li>• Confirm that there are no plans to close existing drainage reserves in South Hedland, or where there are such plans, to confirm that appropriate studies have been / are being completed to model the impact of such closures cumulatively on the upstream and downstream environments;</li> <li>• Review all known locations in South Hedland and Wedgefield where photographic evidence has been compiled showing accumulation of sedimentation and debris impacting the capacities of existing stormwater drainage open drains, culverts, bridge structures and in particular where grills / trash racks have been provided over the face of culverts for safety purposes (preventing access / egress by persons and / or animals).</li> </ul>

## 7.4.5 Transport Infrastructure Gaps

Please refer to Table 16 for identified gaps in relation to Transport Infrastructure.

Table 16 – Transport Infrastructure Gaps

Category	Comments
<b>Base data</b>	<ul style="list-style-type: none"> <li>• There are significant gaps in data documenting utilisation of the existing infrastructure;</li> <li>• Town database of vehicular traffic counts on the existing roads is limited. A significant portion of data collected is outdated (older than 3 years);</li> <li>• Town does not have any data on use of the existing bicycle and shared paths network;</li> <li>• At present, data on road condition and use is not collected, as confirmed in the Draft Strategic Resource Plan;</li> <li>• Existing data on cycling infrastructure, public parking, walking trails, accessible buildings etc is not publicly available.</li> </ul>
<b>Relationship between regulatory documents and strategies</b>	<ul style="list-style-type: none"> <li>• Some of the later strategies and documents do not take into account earlier strategies and findings.</li> <li>• For most strategic documents, clear action plans are lacking as well as progress reporting to track implementation.</li> <li>• Design guidelines published for various industrial estates do not deal with public realm (design of roads and crossovers to the development).</li> <li>• Key documents such as the local planning strategy are now outdated and not aligned with Federal and State regulatory documents.</li> </ul>
<b>Cycling</b>	<ul style="list-style-type: none"> <li>• The most recent cycling plan was prepared in 2008, therefore the relevant guiding document is not in accordance with current design standards, path classification and general regulations.</li> <li>• A 4-year action plan proposed in 2008 was implemented up to approximately 50% as at today (based on the register of footpaths and cycle paths provided by the Town). Items flagged as important were generally implemented in Port Hedland while South Hedland and Wedgefield on-the-whole still have many outstanding “major proposed upgrades”.</li> <li>• The plan provides suggestions on where bicycle racks should be installed; however, it does not provide guidance on bicycle parking requirements for non-residential use to be incorporated in the local planning scheme.</li> <li>• Design standards for cycling and shared paths have changed since the Cycling Plan was prepared and technically many of the proposed (and constructed) shared paths do not satisfy current minimum design requirements to be considered a “shared path”.</li> <li>• Austroads have published a number of design guides for cycling and shared paths which should be taken into account.</li> <li>• Department of Transport developed a classification of cycling corridors which should be reflected in any future documentation.</li> <li>• Department of Transport confirmed that the preparation of a Pilbara Cycling Strategy is currently underway. First draft should be available in early 2020.</li> </ul>
<b>Public Transport</b>	<ul style="list-style-type: none"> <li>• Strategic documents advocate expansion of public transport routes and frequency of services connecting various parts of the Port Hedland area (Port Hedland, South Hedland, Wedgefield, etc)</li> <li>• Current availability of public transport is limited to privately operated lines, generally focused on employees of major companies such as BHP Billiton and school services.</li> <li>• The Public Transport Authority confirmed via email they held a trial for a regular bus service in Port Hedland in 2018-19. This trial was discontinued due to regular poor patronage.</li> </ul>

Category	Comments
<b>Road Network</b>	<ul style="list-style-type: none"> <li>• The road network has been constructed to cater predominantly for motor vehicles.</li> <li>• Although new structure plans stipulate obligatory infrastructure for pedestrians first and foremost, it appears this intention is not followed through completely in implementation phases.</li> <li>• Given the volume of large and oversized vehicles on the road network, safety on roads is not discussed in detail in any of the documents. The impact of road trains making turning manoeuvres at intersections is generally not analysed.</li> <li>• Similarly, rail crossings at grade locations were not mentioned in any of the supporting documents.</li> <li>• It appears that many structure plans and studies fail to account for all proposed concurrent development in the area and tend to focus only on the subject area.</li> <li>• One of the key recommendations in the Port City Implementation Plan was preparing a Town-wide transport model which can be used to assess cumulative impacts of proposed and approved developments. There is no evidence this was implemented. However, it would be prudent to implement this in order to avoid reliance on dated documents.</li> </ul>
<b>Freight</b>	<ul style="list-style-type: none"> <li>• Freight is generally rarely mentioned unless a Structure Plan or a Transport Impact Assessment (TIA) deals specifically with freight-dependent land-use.</li> <li>• Even under these conditions, freight is always considered in isolation rather than in conjunction with other transportation modes.</li> <li>• Limited analysis is done to determine the impact of rail freight, sea freight and air freight on road freight – documents for expansion of port capacity and airport freight cargo do not discuss implications of these activities on the road network.</li> </ul>
<b>Pedestrian traffic and accessibility</b>	<ul style="list-style-type: none"> <li>• There appears to exist a disconnect between strategic and operational documents where strategic documents place great importance on development of pedestrian infrastructure whereas this does not appear to be a priority in operational documents and budgets.</li> </ul>

## 7.5 Data Gaps and Additional Studies

### 7.5.1 Identified Data Gaps

The following data gaps to inform the LPS and scheme review have been identified by the consultant team:

1. Traffic counts and modelling to inform road capacity analysis is limited. While the consultant team can work around this issue, it is recommended that the Town build up its database and maintain its data collection.
2. Current asset database (road condition, footpaths, cycle paths, etc) is limited which makes it difficult to verify what projects have been completed versus outstanding projects previously identified as a priority.
3. At the date of writing this report the following information remains outstanding:
  - a. some Water Corporation data on the existing and planned networks.
  - b. Priority and Threatened Ecological Communities from DBCA.

### 7.5.2 Desirable studies to inform future growth and direction

The following additional studies have been identified as strategies that would benefit planning of the Town district, subject to obtaining funding:

1. Bushfire Hazard Level assessment for the local government area;
2. Regional Transport Modelling which examines the combined impact of development on road infrastructure;
3. Local Tourism Strategy to identify strategies and actions to leverage off local tourism opportunities i.e. cruise ship industry, pastoral station tourism; and
4. Activity Centres Strategy which examines future requirements for provision and location of retail and commercial services outside of the West End precinct.

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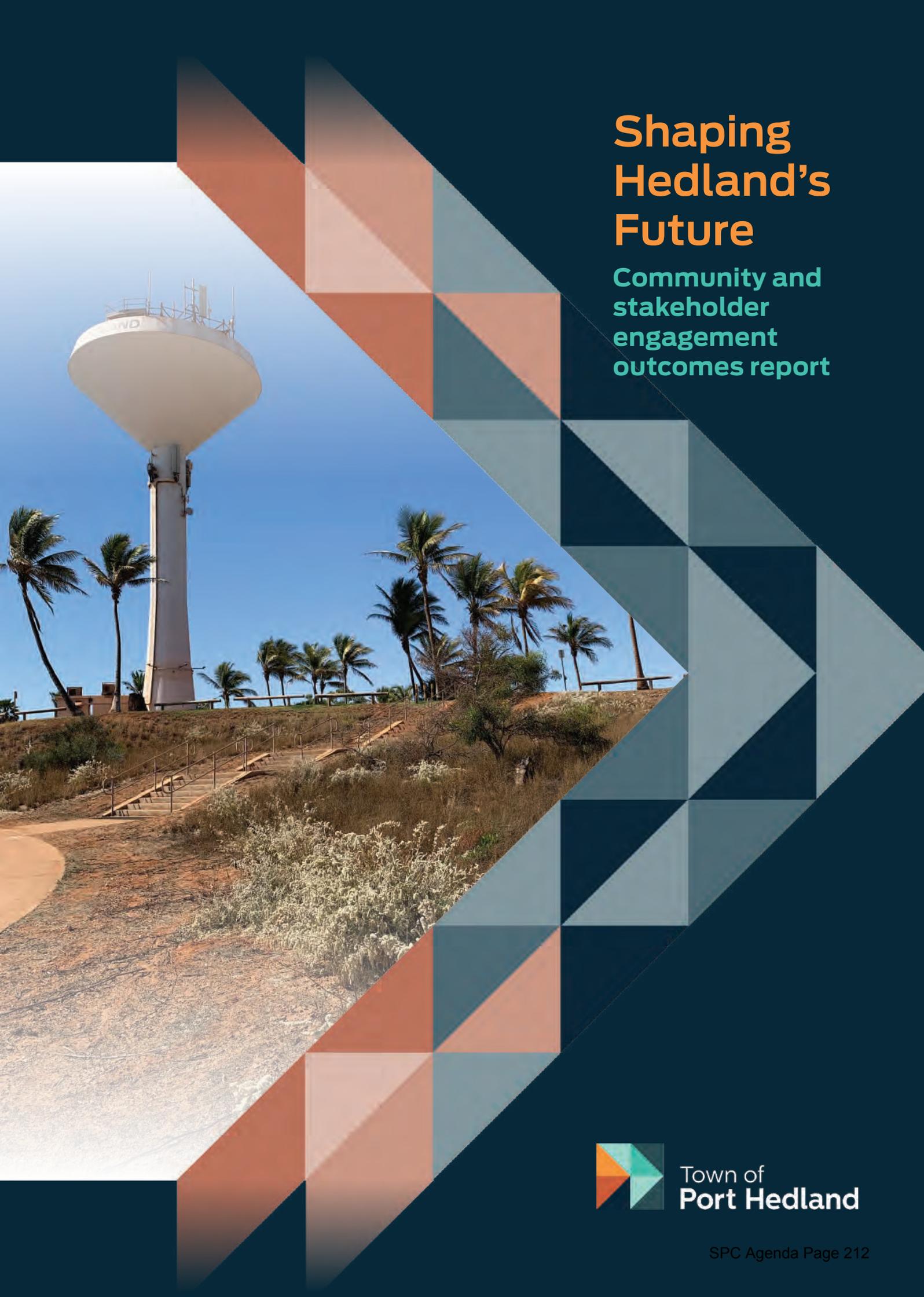
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# Appendix A

## Shaping Hedland's Future - Community and stakeholder engagement outcomes report



# Shaping Hedland's Future

Community and stakeholder engagement outcomes report



Town of  
**Port Hedland**



**element** acknowledges the Kariyarra, Ngarla, and Nyamal people as the Traditional Custodians of the Port Hedland lands.

We recognise their strength and resilience and pay our respects to their Elders past and present.

We extend that respect to all Aboriginal & Torres Strait Islander people of the local community and recognise their rich cultures and their continuing connection to land and waters.

## Community and stakeholder engagement outcomes report: Local Planning Strategy review and preparation of a new Local Planning Scheme

Document ID: /Volumes/Graphics/2019/19-112 Port Hedland RFQ Preperation - LPS and LPS Review/Engagement Outcomes Report/Draft Engagement Report.indd

Issue	Date	Status	Prepared by	Approved by
1	24.03.20	Draft	Catherine Atoms	Andrew Howe

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**YOUTH INVOLVEMENT COUNCIL INC**

EARLY IN 2016 WELL-KNOWN LOCAL ABORIGINAL ARTIST  
**JILALGA MURRAY**  
 FACILITATED A SERIES OF WORKSHOPS WITH YOUTH IN YIC PROGRAMS.

*Jilalga is a public artist and graphic designer and the participants were fortunate to work alongside her to create their panel (to the right). Initially the participants were nervous to use paint and brush techniques in a different way however the young people grew in confidence over the duration of the project and their courage resulted in a unique and stunning piece of work that depicts a sense of pride in what they see around them and a reflection of the local country. Jilalga was a part of the process from the planning phases and took great joy in watching the youth undertake such a large project using high quality paints and materials. Her ongoing assurance was vital to help the youth overcome their fear of putting their ideas down in paint for display at the entrance of YIC HQ.*

*Jilalga's panel (to the left) is an extension of the artwork completed by the youth. She states, "This was a great experience and everyone involved should feel proud. Both pieces work with each other to celebrate this unique place in the world. As an Aboriginal creative person who grew up in South Hedland I hope my mural reminds the youth to dream big and aim high. The future is bright and now there is a great facility to complement the solid support of the YIC workers. Now everyone can flourish and grow."*

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# 1. Introduction

## 1.1 Report Purpose

The Town of Port Hedland (Town) appointed **element** to lead a consultant team to undertake a review of the Local Planning Strategy (Strategy) and preparation of a new Local Planning Scheme. This report has several aims. Primarily, it accurately records engagement activities and outcomes which demonstrate community and stakeholders are integral in the review of the Local Planning Strategy and preparation of a new Local Planning Scheme (Scheme).

The report provides an overview of the engagement and consultation objectives, methods and approaches, which formed part of preparation of a new Scheme.

The engagement approach herein was designed and built upon past community engagement and planning activities, in particular from the Strategic Community Plan (2018 -2028) and Corporate Business Plan (2018 - 2022). Further it aligns with the Town of Port Hedland Community Engagement Strategy 2011. In particular the adoption of its principles for community engagement, being:

- Inclusiveness and Diversity;
- Openness, Respect and Accountability;
- Leadership;
- Purpose;
- Feedback and Evaluation;
- Information Sharing; and
- Resourcing and Timing.

Importantly this document records the engagement outcomes, findings and inputs, which will inform the preparation of a new Strategy.

## 1.2 Project Background

Located 1,765km north of Perth in the Pilbara, the Town of Port Hedland is home to over 14,000 people and encompasses two residential and business centres, Port Hedland and South Hedland, the light industrial area of Wedgefield and the Aboriginal communities of Jinparinya, Marta Marta, Punju Njamal, Tkalka Boorda, Tjalka Wara and Yandeyarra.

Port Hedland has been a significant community hub for the Pilbara since the late 1800s and continues to be a vital part of the region for culture, ecology, sport, business and regional services. The local government area is home to unique desert landscapes, a tropical savannah climate, access to internationally renowned nature reserves and beautiful waterfronts on the headland, which continue to attract both residents and visitors.

At the height of the mining boom a Growth Plan (Pilbara's Port City Growth Plan and Implementation Plan 2012) was prepared. With aspirations based on a rapid city growth scenario, the projected regional population was 50,000 people by 2035. The Growth Plan was adopted by the West Australian Planning Commission (WAPC) in December 2012 as a Local Planning Strategy for the Town, which established the principal strategic direction for any subsequent planning policies. Current development plans now project population growth towards an urban centre to accommodate approximately 27,000 people by 2040.

To inform the review of the Local Planning Strategy and Local Planning Scheme there is a need to revise population, economic growth and land use aspirations within the Growth Plan.

## 1.3 Considerations

In designing community and stakeholder engagement for the project, there were a number of early considerations made. The following provides an overview of the primary considerations, issues and gap identification, which has emerged as part of the Strategic Community Plan, Corporate Business Plan, early engagement, literature review and/or need to be addressed in preparation for the new Scheme. This list is not finite. Additional issues will be acknowledged, and determination made on whether the new Scheme is the appropriate mechanism to resolve each issue.

Relevant considerations for the project are not limited to the following:

- The deficiencies and gaps within the Growth Plan as a contemporary Local Planning Strategy and how these issues can be most readily addressed to arrive at a planning strategy that is fit for purpose to inform the preparation of a new local planning scheme for Port Hedland.
- The Department of Planning, Lands and Heritage have prepared Improvement Plan No. 50 for the West End precinct following consideration of the Dust Management Taskforce recommendations; Improvement Plan No. 50 will provide the statutory basis for the preparation and implementation of a separate improvement scheme over the West End precinct; There may be difficulty representing the State Government's strategy for the West End in the LPS given there is no written strategy.
- The need to prioritise land to accommodate future population growth and development, based on availability of services, proximity to existing developed land and consideration of constraints.
- Challenges associated with non-residential workforce accommodation (predominantly FIFO workers), how this accommodation can be leveraged to provide improved social and economic sustainability for the Town and what normalisation of this type of accommodation may look like within the Town in the future.
- Regional, secondary and tertiary education issues within the Town and the North-West generally; improved secondary educational opportunities within the Town are vital to retaining and attracting families over the longer term.
- Complex issues facing Wedgefield; land use planning conflicts associated with caretaker accommodation, worker accommodation, industrial land uses and heavy vehicles all seeking to co-locate and utilise the area.
- Complexities associated with the provision of industrial lands within the Town including the Boodarie Strategic Industrial Area that may not necessarily support the many smaller and medium scale service commercial and industrial uses present within the Town.
- Coastal planning issues and the need to implement associated planning adaptation measures into local planning scheme provisions.
- Future plans and diversification opportunities for stakeholders under pastoral leases. Future plans may consider tourism opportunities, water management constraints, Information to inform Economic Development Strategy, Regional Water Management Strategy and LPS generally.
- The need to incorporate Yandeyarra Reserve into the new Local Planning Scheme and allocate appropriate zonings/reservations given that it is currently unzoned land within the current Scheme.

# 2. Objectives

## 2.1 Project Objectives

The Local Planning Strategy identifies strategies and actions to address relevant issues, and the Local Planning Scheme, which provides statutory controls to guide decision making for land use and development.

The Strategy builds on the comprehensive engagement undertaken by the Town through the Live It Tell It! engagement process used to inform the preparation of its Strategic Community Plan 2018-2028.

## 2.2 Engagement Objectives

Early engagement with the community and stakeholders was identified as a priority for the development of the Strategy, to ensure a well-informed strategic planning framework for the Town; one that is responsive to the needs of all stakeholders.

Preparation of the Local Planning Strategy (the Strategy) and Local Planning Scheme (the Scheme) is informed by community and stakeholder engagement to understand unique opportunities and constraints facing land planning in each precinct. The project builds upon and progresses past actions undertaken by the Town over recent years in the form of the Growth Plan and the Strategic Community Plan (SCP).

The following project engagement objectives are aligned with those expressed within the Town's Community Engagement Strategy 2011, which are to:

- Build upon past community and stakeholder consultation outcomes;
- Identify relevant stakeholders and understand the nature of their interest and/or involvement;
- Provide stakeholders and the community with clear and accurate project information in relation to a new Scheme and related implications;

- Seek input from key stakeholders and the community in reviewing and preparing a new Strategy and Scheme;
- Ensure a diverse range of appropriate methods are used to maximise participation and project understanding;
- Achieve a high level of stakeholder and community satisfaction with the process used for preparing a new Strategy and Scheme; and
- Continue to build and maintain strong relationships with stakeholders including community and industry.

Accordingly, the design and delivery of community and stakeholder engagement follows these critical stages:

1. **Research** – understand issues, context and identify key stakeholders.
2. **Design** – draft engagement activities, craft questions and clarify key messages.
3. **Deliver** – engage and communicate with the Town's stakeholders and broader community.
4. **Report** – document outcomes and review effectiveness.



# YANIDEYAIRA

# 3. Communication

## 3.1 Focus for Engagement

Significant work has been undertaken by the Town through the development of the Strategic Community Plan and other key Hedland projects. There are four overall themes, which describe the long-term objectives, where the Town wants to be and achieve over the 10-year duration of the Strategic Community Plan.

Accordingly, the focus for engagement conversations is two-fold. Primarily engagement is theme based with a correlation to the Strategic Community Plan themes, which link to delivery areas within both the Local Planning Strategy and Local Planning Scheme documents. Secondly, conversations focus on precincts or places.

Using either themes and place-based foci, several face-to-face and digital techniques are used to engage with stakeholders. While the engagement methods are discussed below, the following depicts the key themes and sub-themes.

<p><b>Community</b></p> <ul style="list-style-type: none"> <li>• Community and culture</li> <li>• Health and wellbeing</li> </ul>	<p><b>Economy</b></p> <ul style="list-style-type: none"> <li>• Employment</li> <li>• Local business, retail and commercial opportunities</li> <li>• Port and industry</li> <li>• Tourism</li> <li>• Pastoral land, agriculture and diversification</li> </ul>
<p><b>Built environment</b></p> <ul style="list-style-type: none"> <li>• Population and housing</li> <li>• Open space, recreation and amenity requirements</li> <li>• Service and infrastructure availability</li> <li>• Land release</li> </ul>	<p><b>Natural environment</b></p> <ul style="list-style-type: none"> <li>• Coastal environment</li> <li>• Flooding</li> <li>• Groundwater and natural resources</li> </ul>

Figure 1: Snapshot themes

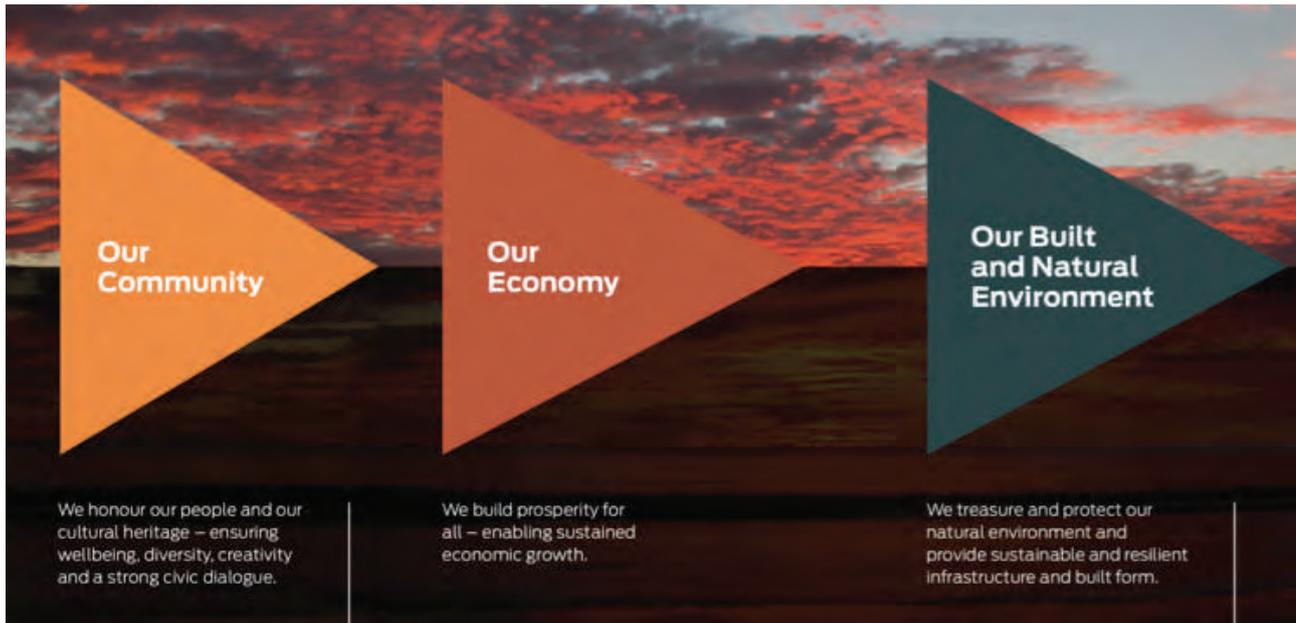


Figure 2: Theme areas prepared as part of the Town of Port Hedland Strategic Community Plan

### 3.2 Key Messages

Central to the engagement approach for the project is to reflect what has been heard through past, recent engagement. By acknowledging what has been heard in past engagement, which includes the public advertising of the Strategic Community Plan in 2018, the project team supports community and stakeholders to feel part of the iterative cycle of planning and decision-making conversations.

Owing to the work completed to-date, design of engagement incorporates and reflects key messages about community identity and the Town's shared values, welcoming spirit and vision. Engagement builds new shared narratives using everyday activities as opportunities for conversations and interaction with the project.

At the core of all communication are the following sentiments:

- The preparation of a new Strategy and Scheme is the logical next step to pull together and consolidate all past planning activities, particularly in relation to the Strategic Community Plan and Corporate Business Plan;
- Shaping Hedland's Future project is an opportunity to tell our unique stories, and also create shared ones;

- Community and stakeholders have been highly participatory in recent years and this project builds upon the outcomes of previous engagement;
- There are a number of other planning projects underway at the same time, it is important to be clear in all communication what stakeholders and community are asked to comment on;
- There is a need to address a number of strategic issues left unresolved from previous planning studies;
- There are a range of engagement opportunities to participate in the project and have a say; and
- This is a high priority project for the Town, which will guide future development for the Port Hedland area.

These sentiments were used to inform and convey key information about the project and design messages, which were delivered across a variety of channels.

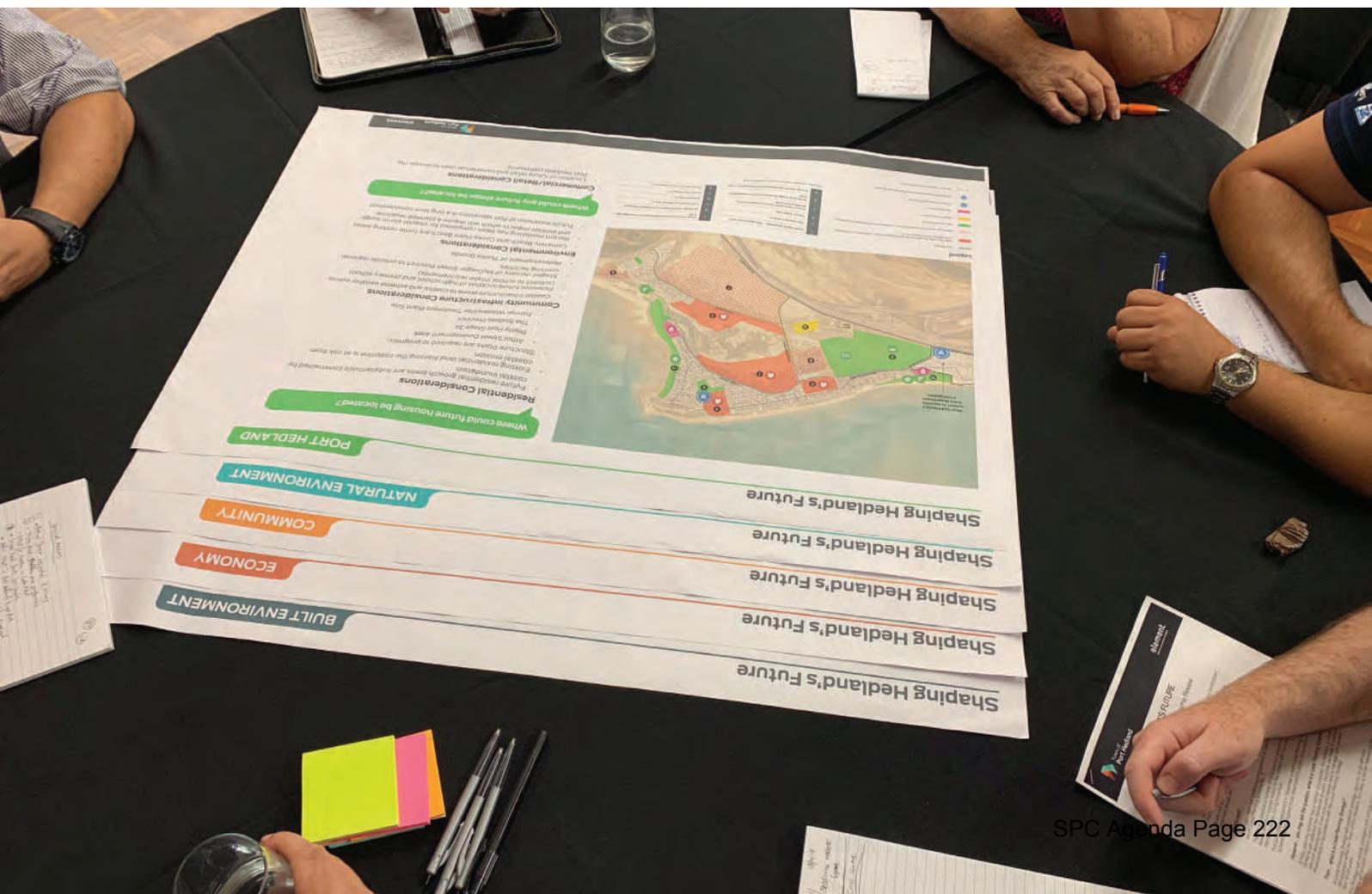
### 3.3 Announcements and Invitations

At the outset of the project, a factsheet (Appendix A) was created to announce the project to key stakeholders. This factsheet was provided in the lead up to and as an accompaniment to face-to-face meetings with stakeholders and community groups.

Shortly after the project announcement, a letter was distributed to all residents and key stakeholders to ensure broad participation and circulate invitations to engagement events (Appendix B Shaping Hedland's Future letter of invitation, and Appendix C Fact sheet schedule of engagement events).

Delivery of all engagement remains adaptive and responsive to current contexts and community expectations. For example, design and delivery of future engagements for the project will reflect public health recommendations for physical distancing.

The Town's website will remain the central channel for communication, trusted for sharing progress on the project and related project information updates.





### Shaping Hedland's Future

### PORT HEDLAND

### Shaping Hedland's Future

**Where could future housing be located?**

**Residential Considerations**

- Future residential growth potential
- Existing residential land
- Structure Plans and other planning instruments
- Alpha Street Corridor
- The 'New' Farm

**Community Considerations**

- Public transport
- Recreation
- Recreation
- Recreation

**Environmental Considerations**

- Coastal erosion
- Coastal erosion
- Coastal erosion

**Where could future commercial/retail be located?**

**Commercial/Retail Considerations**

- Location of future retail and commercial
- Port Hedland community

**Where could future housing be located?**

**Residential Considerations**

- Future residential growth potential
- Existing residential land
- Structure Plans and other planning instruments
- Alpha Street Corridor
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**Community Considerations**

- Public transport
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**Environmental Considerations**

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- Location of future retail and commercial
- Port Hedland community

**Where could future housing be located?**

**Residential Considerations**

- Future residential growth potential
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- Alpha Street Corridor
- The 'New' Farm

**Community Considerations**

- Public transport
- Recreation
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- Recreation

**Environmental Considerations**

- Coastal erosion
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- Coastal erosion

**Where could future commercial/retail be located?**

**Commercial/Retail Considerations**

- Location of future retail and commercial
- Port Hedland community

### Shaping Hedland's Future

#### Environmental assets we want to see?

**Environmental Assets**

Coastal assets including the De Grey River, the Southern River and the Shire River.

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#### These are some of the known environmental assets in Port Hedland:

- Coastal**
  - Coastal erosion risk in Port Hedland during major storm events
  - Coastal erosion risk for land adjacent to the foreshore in Port Hedland
  - Need to maintain and manage a 100m access to the coast to protect these systems
- Groundwater**
  - De Grey and Yula River public drinking water source
  - Land-use controls and management to protect public drinking water over these aquifers
- Surface Water**
  - Subsidence of low lying residential areas and roads from ground flooding
- Climate**
  - Port Hedland is the most cyclone prone area in the southern hemisphere
  - Sea-level rise and coastal erosion could be a major threat
- Climate Change**
  - Potential sea-level rise, increased acidification, warmer, wetter events and bushfire risk
  - Vulnerability of coastal infrastructure as a result of sea level rise
  - Potential impacts on livestock productivity

**50%** of people have access to two or more cars

**40%** of people employed by the mining industry

**Public Open Space (Parks)**

There is a general over-consumption of public open space within Port Hedland whereas South Hedland has an under-consumption.

South Hedland has a general affinity and sense of place.

**Community Infrastructure**

- Relate active recreation facilities and community infrastructure to be planned to be consistent within precincts
- South Hedland Youth Centre
- South Hedland Integrated Sporting Precinct
- North Hedland Youth Centre
- North Hedland Integrated Sporting Precinct

**Other Services and Infrastructure**

Shedding 100 tonnes of material and 1000 tonnes of waste

High quality education and research services are an important to retain people in the community

High quality community camp areas for tourism and recreational purposes

# 4. Engagement Overview

## 4.1 Stakeholder Identification and Analysis

Understanding who the project stakeholders are is a critical element of any project or program. The Project Working Group and the Town extracted from the Town's existing stakeholder database a selection of stakeholders, which formed a new database for the project. An analysis was made of stakeholders on this database, which became a vital source of information over the duration of the project. This was used as the basis for engagement design, to ensure the variety of different types of stakeholders were invited to participate in the project using methods suitable to their interest.

### Stakeholder Types

Stakeholder analysis identifies individuals and groups affected by and involved in a project. The project team used this analysis at the preliminary stages of a project in order to incorporate interests and expectations of persons and groups significant to the project.

Two types of stakeholders were identified within this project. Internal stakeholders are those that may not have a specific and direct role in the project, however can be involved in one way or another. They may represent a role or group that can improve outcomes of the project by way of their involvement.

External stakeholders are generally categorised in the following areas. For this project, the majority of key stakeholders identified were within one of these groupings:

- Local and State Governments (adjoining LGA's; State and Federal Agencies);
- Traditional Owners and Aboriginal Communities;
- Station Owners;
- Community Organisations;
- Key Industry Groups, Local Business and Associations;

- Schools;
- Community, Special Interest Groups and Non-Government Organisations;
- Community Leaders (formal and informal);
- Sporting Groups and Clubs;
- Residents and property owners (local or absent);
- Politicians (Local, State and Federal); and
- Media.

## 4.2 Engagement methods

Within the Town of Port Hedland there are a plethora of stakeholders who are or may be affected by the preparation of a new Scheme. As discussed, during the process of stakeholder analysis, key stakeholder groups are identified along with suitable timing and approach for engagement, detailed in a stakeholder database. In preparation of the approach an assessment of risk is conducted. The tools and techniques selected are to ensure good consultation and communication outcomes, minimise risk and overall benefit relationships between the Town of Port Hedland, communities and stakeholders.

The list below is an overview of the community and stakeholder engagement plan. This list is followed with further details to describe engagement methods. The engagement plan is designed to meet the engagement objectives outlined earlier.

### Face to face engagement

- One-on-one meetings
- Meeting with existing groups
- Aboriginal stakeholder presentation
- HASL / Aboriginal stakeholder forum
- Port Hedland based agencies roundtable
- Port Hedland based industries roundtable
- Perth based agencies roundtable
- Perth based industries roundtable
- School BBQ visit

- Precinct popup South Hedland / interactive information display
- Precinct popup Port Hedland / interactive information display

## Digital engagement

- Online survey
- Emails
- Webpage
- Social media announcements

## Information provision

- Precinct snapshots
- Briefing notes
- Property owner letter / email
- Project factsheets
- Media release / social media posts
- Engagement outcomes report

## Information provision – proposed future engagement

- Community information sessions / static display
- General notice advertising the new Scheme

## Face-to-face engagement

### One-on-one meetings and outreach with existing groups

Over a number of weeks a series of one-on-one and group meetings were held, which engaged with Aboriginal Elders and community members, representatives from vulnerable communities, young people and remote settlements, business and industry representatives, station owners and environmental stakeholders.

Small or one-on-one meetings are less formal than larger meetings and allow key persons to be engaged who may otherwise be under-represented in a workshop environment. Meeting individually and with existing groups additionally provided opportunity to build valuable networks with community and stakeholder groups.

The aim of these meetings at the outset was to obtain a high-level understanding of issues, including the preferred approach and methods for ongoing engagement. The information obtained was reflected through the development of a set of Precinct Snapshots for 'Shaping Hedland's Future' (Appendix D).

The use of these snapshots for engagement is described below.

### Stakeholder roundtables and forums

Stakeholder roundtables and forums provide opportunity to discuss specific issues of concern in greater detail than otherwise provided at public events and the prospect to build crucial stakeholder relationships, which can be maintained for the duration of the project and beyond. Stakeholders sessions were held in groups to enable specific and focused discussions.

The primary purpose of these sessions was to validate previous work with stakeholders, check for gaps, seek relevant information, and later to test strategies and possible provisions relating to the preparation of a new Scheme. To discuss commercial-in-confidence plans, industry stakeholders were also granted one-on-one sessions.

There were five stakeholder sessions held, these were:

Session No.	Stakeholder Group	Estimated Duration
1.	KAC / Hedland Aboriginal Strong Leaders – co-designed workshop	4 hours
2.	Hedland based agencies, which included, but was not limited to EPA, DoP, PDC, DoH, DoEC, WC, Horizon Power	2 hours
3.	Hedland based industry groups and associations	1-2 hours
4.	Perth based agencies, which included, but was not limited to EPA, DoP, PDC, DoH, DoEC, WC, Horizon Power	2 hours
5.	Perth based industry groups and associations	1-2 hours

### School BBQ visit

Town of Port Hedland staff attended the local school Friday BBQ and provided young people with an opportunity to hear about the project and invited engagement through the online survey.

### Precinct popups with interactive information displays

These place-based popups were held at the two main shopping centres in South and Port Hedland. These were held relatively early in the planning process, which enabled feedback to be

incorporated into planning considerations.

Delivered alongside these were interactive information displays, designed to present Place/Precinct Snapshots, which elicited / enabled public comment (aligned with the content of an online survey).

Hard copies of information materials were provided, which linked to online information for the project so members of the community could review the material and respond at the same time or take information away and complete the online survey at a later date.

Holding these events at well visited locations (one in Port Hedland and the other in South Hedland) made it easier, more convenient and attractive for community members to participate.

Key aspects were:

- Representatives of the Project Working Group and the Town were in attendance to answer questions.
- In addition to display materials, printed handout materials were available to encourage online feedback at a later date.
- Display materials could be provided at the Town office.
- An electronic version was placed on the Town's website and with copies also available through an online survey.
- Invitations / notice was distributed via a letter to residents and key stakeholders to illicit participation.

The aim was to provide information to the general community about the project, respond to questions, listen to a diversity of community ideas and concerns, and provide opportunity for people to have their say regarding information on the precinct snapshots.

This approach provided community and stakeholders with the ability to ask multiple questions so issues could be clarified or resolved early, which results in a more satisfied outcome for participants.

## Digital engagement

### Online survey

A highly targeted approach to engagement was key to success for this project. It is critical to ensure a choice for community and stakeholders by using a variety of face-to-face and online engagement activities. For out-of-town stakeholders, the digital realm offered a complementary, efficient and engaging way to connect with a broad cross section of the non-residential land-owner community.

The digital survey was uploaded and timed to occur in conjunction with face-to-face engagement to provide online opportunity for people to review plans and documents produced for the specific purpose of seeking feedback via the survey. Information at community events directed people to invite their friends, family and network to give feedback through the survey if they were too busy to stop or otherwise unable to attend engagement events.

### Webpage

Given reasonable numbers of the community typically have access to the internet, at key project milestones information specific to the project was uploaded to the Town's web page. Online information included project factsheets and a project timeline to depict 'where we are at' in the project. Contact details were provided should community and key stakeholders need to make general enquiries.

### Social media announcements

In addition to the Town webpage, information updates were provided via the Town's social media sites. Social media communication supported in-town and out-of-town community and stakeholders to engage with project information and also invited and raised the profile of face-to-face approaches.

## Information provision

### Precinct snapshots

Recognising that the people who live and work in an area know it the best, the engagement approach was place/precinct and issues/theme based. A set of area maps were developed to present key information. This enabled and focused engagement outcomes to better inform the review of the Local Planning Strategy and Local Planning Scheme. To support this approach, simple Precinct Snapshots outlined

and mapped what is known about places to enable prompt conversations. In the main, information was drawn from existing literature and documentation, which included previous and early stakeholder engagement to reflect what was being heard.

### **Briefing Notes**

Briefing notes ensured key stakeholders were kept informed throughout the duration of the project.

### **Property owner letter / email**

The Town sent stakeholder letters to property owners via email. Content of the letter included background of the project, an invitation for recipients to contribute to the engagement activities, provision of a link to the project survey, website address and contact details of the project team.

### **Project factsheets**

Project information (announcements / factsheets / frequently asked questions) were released at milestone stages of the project, as information became available and the project progressed. These were short, simple, easy to read and visually interesting. Project updates were targeted to be accessible for local community and stakeholders, however the language is generally inclusive and jargon free, and the information is factually correct. The project was described in a manner that is positive and evokes interest.

Project sheets were mailed, emailed, distributed at information and feedback sessions, meetings and public events, and uploaded electronically. Project sheets have the benefit of reaching a larger target audience and the potential to encourage and prompt immediate feedback. Contact details were always included.

### **Media release / social media posts**

As part of this project, the current media and social media protocols were used, which the Town would typically employ in relation to any of its major projects. This ensured any and all dialogue with the media in relation to this project was undertaken by Town staff only. This was to guarantee consistent and accurate messages were delivered.

### **Engagement outcomes report**

Provision of post-engagement feedback reassures communities that the views and concerns of participants are acknowledged and considered. Outcome reports enable a greater degree of trust and cooperation to be established between communities and decision-makers.

It is important for accurate feedback to be given in a timely manner throughout engagement, and communities to be informed of the feedback methods. Feedback is expressed clearly and logically in ways the community can easily comprehend and includes an analysis of the information and data obtained and an evaluation of the process administered.

The first round of feedback took the form of the Precinct Snapshots. This was followed by online information, updates, emails and letters as well as through the production of this Engagement Outcomes Report.

Copies of the engagement outcomes report will be made available to stakeholders and the broader community through the Town web page.

## **Information provision – proposed future engagement**

### **Community information sessions / static display**

Information sessions encourage participants to ask questions, provide direct feedback and submit written comment by way of formal feedback forms. The static display is a simple representation of the draft and final outputs (Strategy and Scheme) which can be left in one to two well visited locations to enable community to access, and there is a feedback element such as collateral how to make a submission or links to where and how they can make a submission.

### **General Notice Advertising the New Scheme**

Once a draft of the new Scheme is prepared and presented to the Project Steering Group the team seek additional feedback via a general advertising process. A static display is proposed to occur in a minimum of two locations, along with notification via the Town's website, social media, notice in the local media and emails.

# 5. ‘Shaping Hedland’s Future’ Engagement Outcomes

## 5.1 Summary of engagement outcomes

The key issues and themes collated from all face-to-face and online engagement activities with community and stakeholders are summarised below. The following excludes proposed future engagement activities, which will occur after advertising the new Scheme.

The following section outlines the feedback heard from a variety of stakeholders and community members through the engagement period from August to December 2019. As expressed in the key messages and scope of the engagement activities, the project team sought to build upon collective community knowledge, which was gathered in recent years.

For the purposes of the data analysis, feedback across different sources (face-to-face and digital) are combined where appropriate to give a consolidated representation of the themes and issues described across the different channels. The demographic data for responses to the digital survey are contained in Appendix E online community survey demographic results.

Specific to the engagement objectives of this project, the project team have delineated feedback which is most likely to have influence on the outcomes of the Local Planning Scheme. Acknowledging the many participants who shared their knowledge and time to influence a positive future for the Town of Port Hedland, outlier ideas which may otherwise be considered out of scope are also noted in this report.

The key issues and themes collated from all face-to-face and online engagement activities with community are summarised as follows:

### **Strike the balance between addressing the short to medium term needs of the community whilst also weaving in strategies to attract long-term investment.**

Presently the Town of Port Hedland is experiencing a period of slow construction and growth, which is attributed to a lumpy mining cycle. With a lesser focus on mining and subsequent investment as previously experienced, community and stakeholders are actively looking for options to improve their services and facilities through more diverse means.

Community and stakeholders were able to articulate to the project team a number of key priorities where both the local government and local people could work together to improve the daily lives of residents such as improving streetscapes, greater access to childcare, more parks and gardens, greater diversity of indoor and outdoor sport and recreation facilities, expanded youth services and facilities, managed access to coastal recreation areas, exploring sustainability initiatives and supporting local businesses.

By the same token a significant proportion of comments acknowledged the benefit of long-term thinking and investment to deliver and support local assets, particularly when considering long-term viability and activation of the Town. Initiatives which were common included growing the tourism industry, locating houses closer to amenity and services, mitigating coastal inundation risks, supporting new agricultural/pastoral industries, reducing red tape, protecting water sources and creating a transport logistics precinct with reduced impact to residents. There was a general sentiment that investments and priorities should first and foremost benefit residents but also provide a level of inclusiveness to visitors and attract new businesses and investment.

## Location of future residential and service areas

When asked about future housing preferences within the Town of Port Hedland, participants consistently supported for housing to be located close to existing amenities and facilities. Most preferred housing sites in order were the Telstra Tower Site (Site 3), Former Rec/ Detention Centre, City Centre Development (Site 2) and Trumpet Way Structure Plan (Site 4). By concentrating housing within existing established areas, away from impacts of industry and heavy transport routes, people would be able to enjoy a more idealistic lifestyle in the community as well as promote walkability with improved streetscapes.

Several opportunities were identified to enhance existing housing areas to support incorporation of new housing, including enhancement of parks and gardens, improve streetscapes for pedestrians, provide more rest stops, increase youth activities and services and explore CPTED strategies to address antisocial behaviours.

## Promote opportunities for sustainability initiatives and environmental assets

The project team consistently heard from participants that the community is seeking to diversify sustainable living strategies in the Town. This includes diversifying renewable energy resources, improving water use and protecting water sources, increasing endemic tree planting for habitat and food sources, improving food security via fresh food gardens, improving habitat for fauna (e.g. turtles and fish) and conserving natural waterways and coastlines (e.g. mangroves).

By providing more emphasis on sustainability in a regional town such as Port Hedland, participants saw opportunities to provide a sense of liveability in the Town, promote sustainability as a value proposition for businesses, visitors and residents, increase opportunity for eco-tourism and instil a sense of ownership/pride. Supporting a local transition town team was suggested as a key strategy to implement future local-level projects.

## Support new economic growth areas including tourism and arts and culture

Increasing opportunities for tourism featured strongly in the conversations and feedback gathered from all community and stakeholder cohorts. People highly valued the natural assets on their doorstep and were able to envision a stronger tourism offering to attract visitors and economic stability to the area by showcasing beaches, mangroves, recreational fishing, wildlife (e.g. turtles) and Aboriginal cultural experiences. In particular the traditional knowledge, arts and culture that local and nearby Aboriginal individuals and communities could contribute to the tourism industry was well supported. Importantly people supported that Aboriginal people represent a high proportion of the workforce to roll out these initiatives.

Several ideas for emerging tourism experiences included station/farm stay accommodation, hot air ballooning, an Aboriginal enterprise led airline, beach lagoon swimming and a centralised cultural experience centre.

## Addressing land use compatibility issues in Wedgefield

The continuing land use conflict within Wedgefield was captured as part of the engagement activities. When asked to comment on options of whether to relocate transport and heavy industry and/or caretaker dwellings within the Wedgefield precinct, the community sentiment was divided about whether to leave the caretaker residents in situ or seek to put in place planning measures which would encourage relocation away from the area and class the Wedgefield precinct for industry only. It was clear in these conversations that participants were less in favour of co-locating these two uses together due to impacts on lifestyle and wellbeing.

## 5.2 Port Hedland

Background research was collated to create a number of snapshots for each precinct. The Port Hedland Snapshot was presented to community members and stakeholders during several workshops and pop-up sessions. This poster and associated information was available via the online survey and the Town website.



Figure 3: Port Hedland East snapshot poster presented to participants showing potential housing, recreation, facility and tourism opportunities.

Table 1 below provides a summary analysis of comments collected from participants.

Table 1: Feedback summary for Snapshot One - Port Hedland

Questions	Port Hedland key themes and observations
<b>Category: Community</b>	
<p>What is your preferred staging for future housing in this area?</p>	<ul style="list-style-type: none"> <li>Online survey participants (n=39) indicated that their top two most preferred sites for future housing is <b>Telstra Tower Site</b> (Site 3) followed closely by <b>Former Rec/Detention Centre</b> (Site 4). The least preferred site was <b>Pretty Pool</b>. (See Figure 4).</li> <li>Similarly, participants who attended workshops and/or pop up sessions also gave strong support for housing at <b>Former Rec/Detention Centre</b> site and the <b>Telstra Tower site</b>, followed by <b>Athol Street</b>.</li> <li>Those in favour of developing the <b>Former Rec/Detention Centre</b> and <b>Telstra Tower</b> sites noted that this would be an easier place to develop and is well positioned to existing facilities, utility networks and roads. In terms of predicted population growth these areas – either consolidated or separate – would be good options for new housing.</li> <li>Respondents cited criteria to selecting site as the extent of infill required, risk of inundation or flooding (reference away from the coast), timing of developments, provision of correct housing types in the correct location and cost.</li> <li>Several comments noted that that only a portion of the <b>Athol Street</b> (Site 1) would be suitable for housing to avoid storm surges and conserving natural heritage (“Athol Street is Port Hedland’s Kings Park”).</li> </ul>

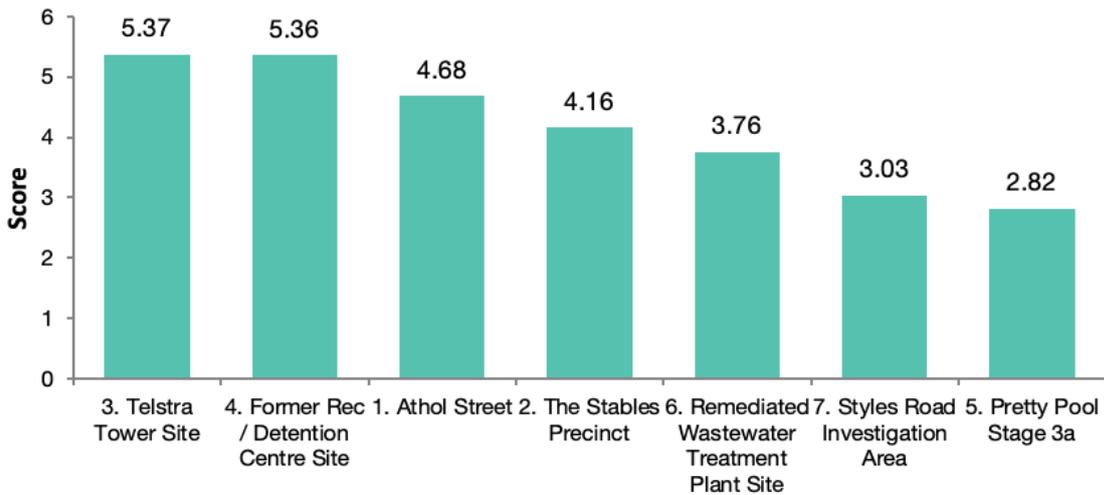


Figure 4: Port Hedland Community Survey question 6: 'What is your preferred staging for future housing in this area? Rank these areas in order of your preference.' (n=39)

Questions	Port Hedland key themes and observations
Category: Community	
Would you like to see commercial development / shops in the Cooke Point or Athol Street area?	<p>Online survey participants (n=40) were more likely to be in favour of commercial development at <b>Cooke Point</b> (Site 4) rather than <b>Athol Street</b>. 67.5% were in favour for Cooke Point compared with 45.0% in favour for Athol Street. (See Figure 5 below.)</p> <p>Single comment from Perth workshop: Athol Street requires a lot of fill.</p>

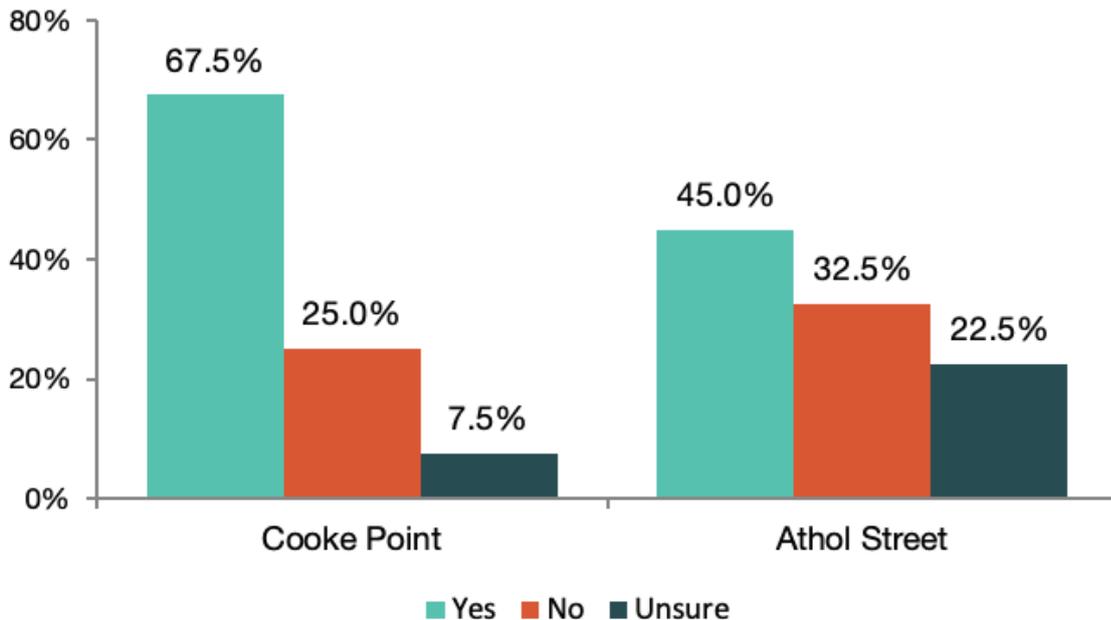


Figure 5: Port Hedland Community Survey questions 7 and 8 combined: Would you like to see commercial development / shops in the Cooke Point and/or Athol Street area? (n=40)

Questions	Port Hedland key themes and observations
<b>Category: Community</b>	
<b>In planning for community facilities in Port Hedland precinct, are there important considerations?</b>	<p>The following reflects considerations by the community that are in addition to those proposed by/previously heard by the project team (e.g. shortage of childcare, need for investment in youth and education).</p> <p><b>Recreation spaces</b></p> <ul style="list-style-type: none"> <li>• Support for new infrastructure that is multi-functional and caters to a more diverse sport and recreational offering, including casual indoor recreation (weather), dance and gymnastics. Perception of too many ball sports (e.g. basketball).</li> <li>• Support to prioritise maintenance and upgrades of current facilities, specifically parks and gardens, outdoor recreation areas requiring more shade.</li> <li>• Improve tree plantings in the streetscapes, improve amenity for locals and visitors.</li> <li>• Idea to co-locate new school facilities with regional POS to optimise assets.</li> </ul> <p><b>Existing Port Hedland infrastructure challenges</b></p> <ul style="list-style-type: none"> <li>• Sentiment of limited change or substantial improvement to aging infrastructure.</li> <li>• Utilising existing infrastructure thoughtfully and concentrating new assets close to where people live.</li> <li>• Support to avoid placing infrastructure in areas where there is a known risk for coastal hazards.</li> </ul> <p><b>Connectivity and movement</b></p> <ul style="list-style-type: none"> <li>• Reduce the physical and psychological disconnect between Port Hedland and South Hedland to improve community outcomes and consolidate access to community facilities - communities are too dispersed. Suggestion for greater pedestrian and cycling infrastructure.</li> <li>• Opportunities to link streets and future civic heart in Port Hedland to the water.</li> <li>• Support to locate new shopping centre within South Hedland with the greater population.</li> <li>• More accessibility to public transport for CALD communities.</li> </ul> <p><b>Childcare</b></p> <ul style="list-style-type: none"> <li>• General support for more childcare within Port Hedland, including alternative models such as in-home care.</li> <li>• Biggest barriers are lack of facilities, quality operators and trained staff.</li> <li>• Perception that workers leaving the area due to lack of childcare, issue for employers.</li> </ul> <p><b>Entertainment and hospitality</b></p> <ul style="list-style-type: none"> <li>• Support of indoor venues such as restaurants, cafes, cinema, performing arts space, supermarket, connect to outdoor areas such as parks and gardens.</li> <li>• Support for a more diverse tourist offering, including Aboriginal cultural experiences.</li> <li>• Centralise shopping centre and improve local shopping experiences.</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Youth services needed in Port Hedland, not just South Hedland.</li> <li>• Lack of intergenerational support.</li> <li>• Consider how to incorporate environmental technologies (e.g. materiality, habitat conservations, water use).</li> <li>• Relocate fire and rescue services to higher ground.</li> <li>• Affordable housing and subsidised housing for workers.</li> </ul>

Questions	Port Hedland key themes and observations
<b>Category: Natural Environment</b>	
<b>Have we missed any important environmental assets in Port Hedland?</b>	<p><b>Coastal assets</b></p> <ul style="list-style-type: none"> <li>• Include 6 Mile and 4 Mile Creek in study area.</li> <li>• Maintain tidal flushing.</li> <li>• Avoid development in flood areas.</li> <li>• Dunes.</li> </ul> <p><b>Fauna and flora</b></p> <ul style="list-style-type: none"> <li>• Manage and protect tidal reefs for habitat and recreation, as well as mitigate issues of habitat loss due to dredging/sedimentation/erosion.</li> <li>• Protect mangroves and turtle nesting areas.</li> <li>• Frogs living in Athol Street.</li> <li>• Use artificial reefs to improve fish stock.</li> <li>• Kangaroos visiting 4 Mile and 6 Mile Creek.</li> <li>• Opportunity to use development to drive community engagement in conversation of natural areas (e.g. planting).</li> </ul> <p><b>Heritage and cultural practice</b></p> <ul style="list-style-type: none"> <li>• What spaces in Port Hedland are currently available for cultural practice? Protect places of cultural significance.</li> <li>• Protection of Aboriginal art and culture e.g. petroglyphs in Stables area, middens and carvings in Styles Street area.</li> <li>• Traditional Owner knowledge of plants, bush medicine.</li> <li>• Historical areas in West End and maritime heritage.</li> </ul> <p><b>Recreation</b></p> <ul style="list-style-type: none"> <li>• Access to crabbing and fishing areas inhibited by harbour infrastructure, particularly important to Traditional Owners.</li> <li>• Spoilbank Recreation Reserve.</li> <li>• 4WD access to coastal areas.</li> </ul> <p><b>Water and water use</b></p> <ul style="list-style-type: none"> <li>• Increase water reuse within Port Hedland.</li> <li>• Expand current water source e.g. increase bore fields. What other alternative water sources are available to the Town?</li> <li>• Broader water quality management of surface water and aquifers.</li> </ul>

### 5.3 South Hedland

The South Hedland Snapshot was presented to community members and stakeholders during several workshops and pop-up sessions. This poster and associated information was available via the online survey and the Town website.

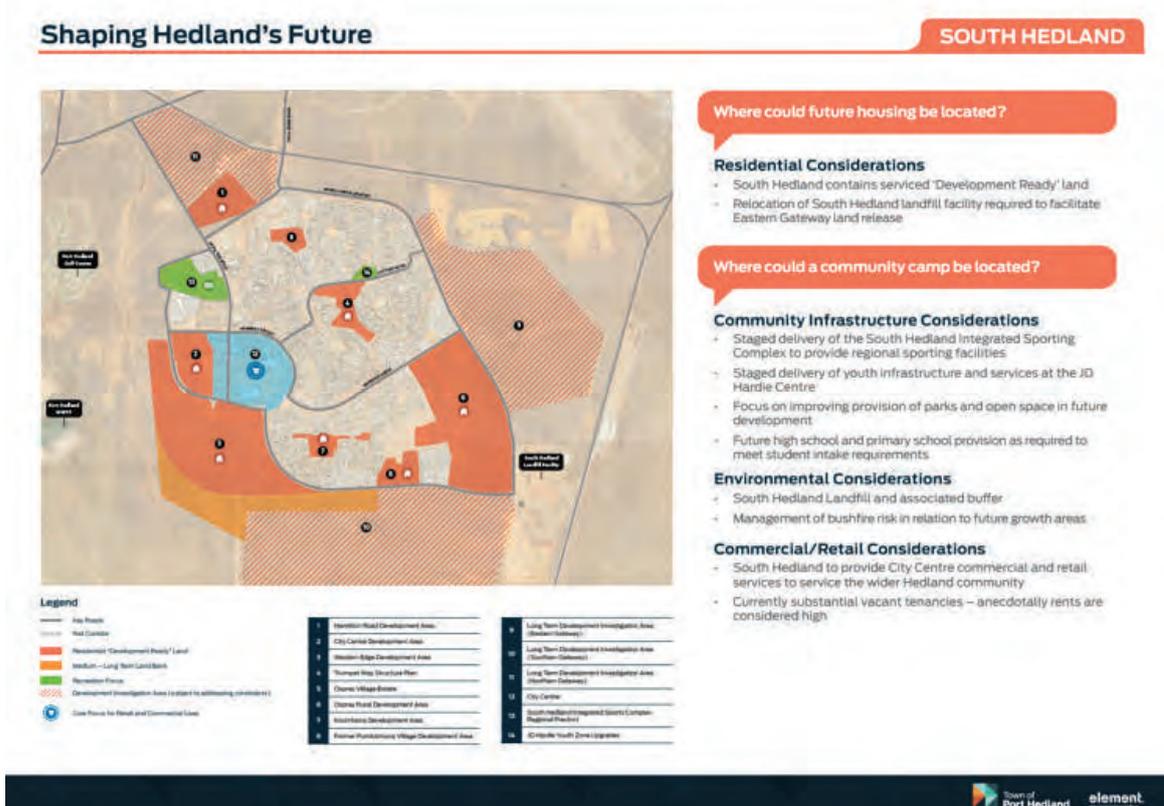


Figure 6: South Hedland snapshot poster presented to participants showing potential housing, recreation, facility and city centre opportunities.

Table 2 below provides a summary analysis of comments collected by participants.

Table 2: Feedback summary for Snapshot Two - South Hedland

Questions	South Hedland key themes and observations
<b>Category: Community</b>	
<b>What is your preferred staging for future housing in this area?</b>	<ul style="list-style-type: none"> <li>Online survey participants (n=35) indicated that their top two most preferred site for future housing in South Hedland is the City Centre Development (Site 2) followed by Trumpet Way Structure Plan (Site 4). The least preferred site was Osprey Rural (Site 6). (See Figure 7.)</li> <li>Participants who attended the community workshop on 12 November indicated equal support for Western Edge, Trumpet Way, Koombina and Osprey Rural.</li> <li>Other comments included support for infill to build housing and improve amenity, Osprey Village as being incompatible within a school catchment zone and creation of an entry statement for Hamilton Road.</li> </ul>

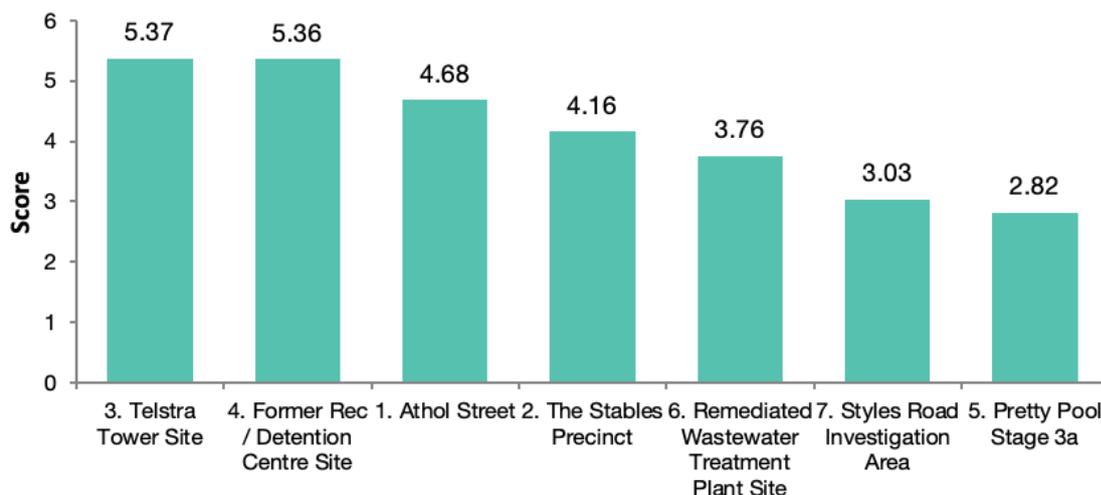


Figure 7: Port Hedland Community Survey question 11: 'What is your preferred staging for future housing in this area? Rank these areas in order of your preference.' (n=35)

Questions	South Hedland key themes and observations
<b>Category: Community</b>	
<p><b>Tell us your great idea to improve the sense of place in South Hedland. What improvement would you like to see and where would you like to see it?</b></p>	<p><b>Parks and gardens</b></p> <ul style="list-style-type: none"> <li>Increasing food security and access to fresh produce had strong support from the community.                             <ul style="list-style-type: none"> <li>Support for native gardens in the public realm with bush tucker plantings.</li> <li>Support for community gardens to grow bulk food.</li> </ul> </li> <li>Idea to create an Indigenous botanical park showcasing native plants, culture, walk trail, art and heritage, hence building a sense of pride.</li> <li>Walking trails.</li> <li>Create dog parks for people to exercise their pets.</li> </ul> <p><b>Amenity</b></p> <ul style="list-style-type: none"> <li>Plant more native trees along verges and in carparks to increase shade and beautify the streetscape. Tree selection to consider maintenance required by the Town to reduce tree mortality (i.e. water sensitive urban design and endemic species).</li> <li>Improve the visual amenity for visitors by specifying a main street/town square using native green plantings.</li> <li>Clean up rubbish in the streetscape and paths.</li> </ul> <p><b>Recreation</b></p> <ul style="list-style-type: none"> <li>Develop indoor activity facilities such as a theatre, movie cinema and ten pin bowling, to cater for locals, young people and visitors to the Town.</li> <li>More youth services to complement the new JD Hardie Centre, including a 24-hour drop-in centre.</li> <li>Public pool in South Hedland should be free for young people.</li> </ul> <p><b>Connection and community safety</b></p> <ul style="list-style-type: none"> <li>Encourage initiatives that connects people to their neighbours.</li> <li>Install street lighting for streets, paths and bridges.</li> <li>Address and lower the crime rates experienced in the community.</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>Encourage community to be involved in various projects and initiatives supported by Council (e.g. tree planting, litter collection, proactive role in Council decisions, lifeguards).</li> <li>Support the creation of a Transition Town Team for long term sustainability, encourage community action and contribution.</li> </ul>

Questions	South Hedland key themes and observations
<p><b>In planning for community facilities in South Hedland precinct, are there important considerations?</b></p>	<p>The following reflects considerations by the community that are in addition to those proposed by/previously heard by the project team, that is:</p> <ul style="list-style-type: none"> <li>• Need to provide inclusive and dedicated facilities, which meet the needs of traditional owners and Aboriginal communities.</li> <li>• Need to address quality and overall provision of parks within South Hedland.</li> <li>• Identified shortage in childcare facilities needs to be addressed as a priority.</li> </ul> <p><b>Gardens and parks</b></p> <ul style="list-style-type: none"> <li>• Plant more trees that provide shade and public realm amenity.</li> <li>• Plant <b>food gardens</b>, both recreational and an opportunity for commercial plantings (e.g. permaculture).</li> <li>• Plant a native food market garden to nourish people, share bush food knowledge and as a commercial opportunity.</li> <li>• Enclosed dog parks for people to spend time with their pets.</li> </ul> <p><b>Children and youth services</b></p> <ul style="list-style-type: none"> <li>• Support for more diversity of activities for children and youth across all interests, genders and ages.</li> <li>• Support for children and youth activities that may be accessed throughout the year and throughout the day (day and evening).</li> <li>• Centralise broader community facilities near the new school, act as a 'one stop shop' for families.</li> <li>• Facilities to help support children and youth with social issues (e.g. 24 hour safe space for youth drop-in).</li> </ul> <p><b>Indoor and outdoor recreation</b></p> <ul style="list-style-type: none"> <li>• Opportunity for integrated sports complex near JD Hardie centre, inclusive and open. Indoor leisure space included in complex.</li> <li>• Rock climbing, BMX rack, access to swimming pools.</li> <li>• Remove restrictions that presents barriers to clubs and access to spaces.</li> </ul> <p><b>Community safety</b></p> <ul style="list-style-type: none"> <li>• Support for CPTED initiatives to create spaces to reduce antisocial behaviour such as street drinking and crime e.g. surveillance, decentralised community housing and lighting.</li> <li>• Facilities and services that address drug use and keeping kids safe (e.g. drop-in centre).</li> </ul> <p><b>Sustainable living</b></p> <ul style="list-style-type: none"> <li>• <b>Protect drinking and recreational water sources</b>, maintain quality and quantity for human consumption.</li> <li>• WSUD such as water reuse and plantings to reduce water loss.</li> <li>• Promote sustainable living in the community using community initiatives e.g. tree planting days, Transition Town.</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Encourage more diversity retail and commercial businesses to increase activity.</li> <li>• Provide more public toilets.</li> </ul>

## 5.4 Port and Industry

The Port and Industry Snapshot was presented to community members and stakeholders during several workshops and pop-up sessions. This poster and associated information was available via the online survey and the Town website.

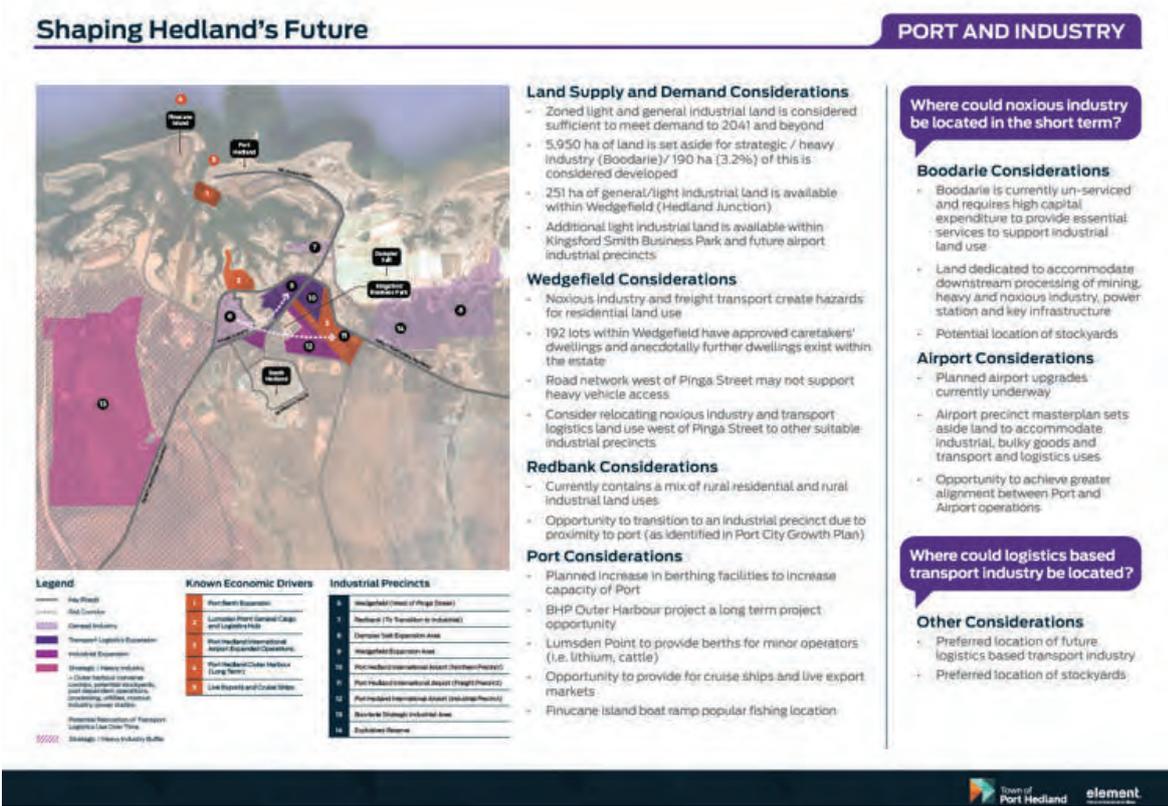


Figure 8: Port and Industry snapshot poster presented to participants showing current locations for industry and transport, as well as opportunities to relocate appropriate land uses.

Table 3 below provides a summary analysis of comments collected by participants.

Table 3: Feedback summary for Snapshot Three – Port and Industry

Questions	Port and Industry key themes and observations
<b>Category: Natural Environment</b>	
Where is your preference to locate noxious industry?	<ul style="list-style-type: none"> <li>Of the three options presented as viable options in the community survey (Areas 9, 13 and 14) the strongest preference for face-to-face participants was to move noxious industry to Site No.9 Wedgefield – Hedland junction Estate. Comments to accompany this support included preference for developing new infrastructure and the option to continue to coexist caretakers with industry.</li> <li>Several comments were in support of either relocating caretaker dwellings away from Wedgefield or citing the caretakers current location as a barrier to industrial redevelopment at Wedgefield.</li> <li>There was general support to move noxious industry away from residential houses due to health, heavy traffic and amenity. It was generally identified as a conflict of use.</li> <li>Whilst survey respondents cited Boodarie as the more preferable noxious industry location (n=11) this was followed closely by Explosive Reserve (n=10) and then Wedgefield (n=9).</li> </ul>

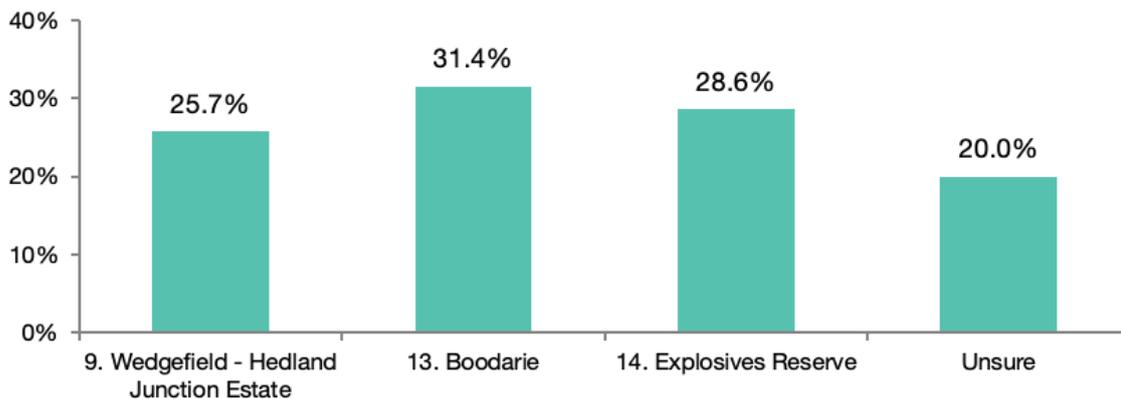


Figure 9: Port Hedland Community Survey question 14: ‘Where is your preference to locate noxious industry?’ (n=35)

Questions	Port and Industry key themes and observations
<b>Category: Built Environment</b>	
Where is your preference to locate transport-based logistics?	<ul style="list-style-type: none"> <li>Of the two options presented as viable options in the community survey (Areas 9 and 11) the strongest preference for face-to-face participants was <b>Highway Precinct</b> (Site 11). This is further complemented by the top preference of online respondents (see Figure 10 below).</li> <li>Many participants submitted statements about the key criteria and dependencies that should assist in selecting a location for transport logistics. These included:                             <ul style="list-style-type: none"> <li>Quality, positioning and design of new and existing road networks, for example the impacts of the new Great Northern highway Bypass.</li> <li>Type of vehicles using the roads (ie. heavy vehicles, RAV).</li> <li>The mode of transport needed to carry goods (road vs rail).</li> <li>Impacts of local residents of transport vehicles, including dust and noise, particularly with 24hr operations.</li> </ul> </li> </ul> <p><b>Other comments</b></p> <ul style="list-style-type: none"> <li>Road train assembly area needed on west side of town.</li> <li>Provide financial incentives to attract logistic anchors in chosen location.</li> <li>Appropriately linking road and rail to the airport would be advantageous.</li> </ul>

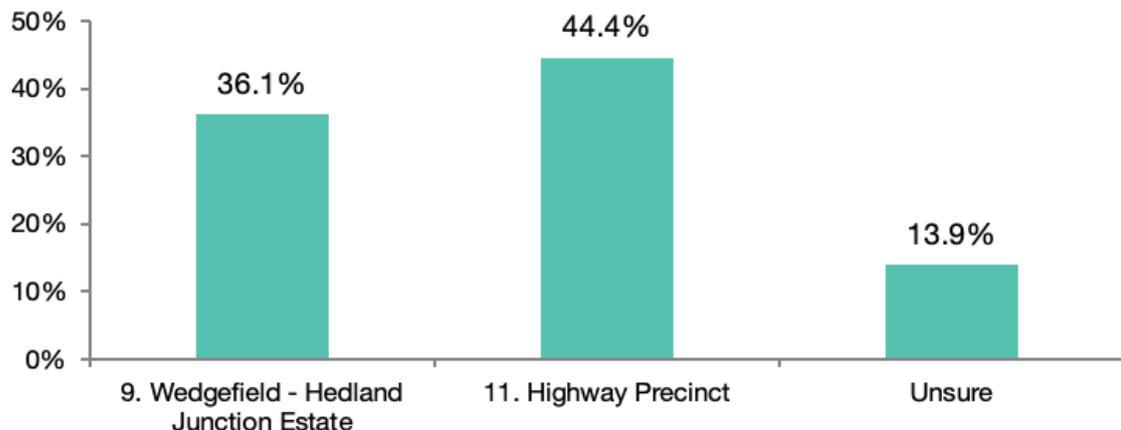


Figure 10: Port Hedland Community Survey question 15: ‘Where is your preference to locate transport-based logistics?’ (n=36)

Questions	Port and Industry key themes and observations
<b>Category: Built Environment</b>	
Future of Wedgefield	<ul style="list-style-type: none"> <li>Of the options presented as viable options in the community survey (see Figure 11 below) the strongest preference for face-to-face participants was for <b>Heavy industry to relocate away from Wedgefield</b>.</li> <li>Almost a third of respondents to the survey (n=11) said they would prefer <b>Continuation of caretaker dwellings and heavy industry co-existing in Wedgefield</b>.</li> <li>The project team heard that there was support for caretakers to stay, however there was limited qualifiers offered as to why.</li> <li>There was general acknowledgement that co-location of industry and residential dwellings was not a preferred option.</li> </ul>

Questions	Port and Industry key themes and observations
<b>Category: Built Environment and Natural Environment</b>	
Redbank currently contains a mix of rural residential and rural industrial land uses.	<p><b>New land uses and activities</b></p> <ul style="list-style-type: none"> <li>Almost two thirds of online respondents were in favour of retaining Redbank as rural residential lifestyle properties (see Figure 12 below). This was also generally supported by workshop participants including lifestyle properties and accommodation linked to light industrial.</li> <li>Industrial uses were less popular with participants with comments in support of moving current industrial uses away from Redbank, possibly to the port.</li> </ul>
What do you see the future of Redbank Precinct being?	<ul style="list-style-type: none"> <li>Tourism opportunities were mentioned by a number of people including developing short stay accommodation, reuse of the old powerhouse, marine tourism and showcasing petroglyphs.</li> </ul>

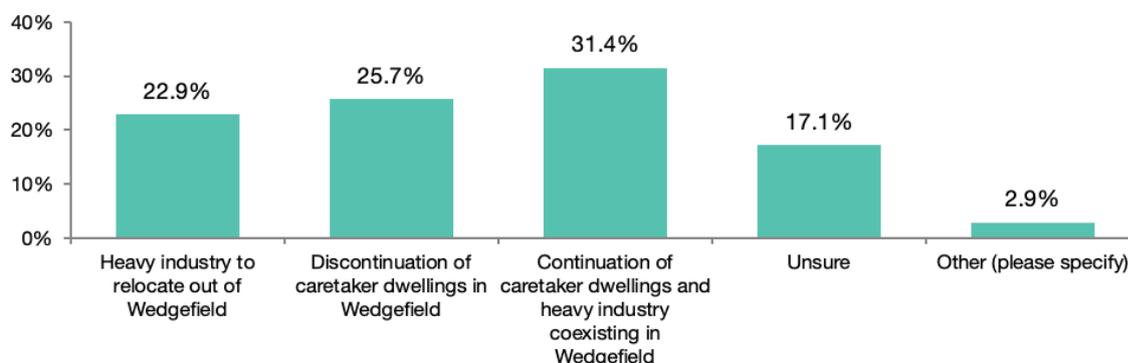


Figure 11: Port Hedland Community Survey question 16: 'Of the following, which would you most prefer to encourage for the Wedgefield area?' (n=35)

Questions	Port and Industry key themes and observations
Redbank currently contains a mix of rural residential and rural industrial land uses.	<p><b>Potential barriers to change</b></p> <ul style="list-style-type: none"> <li>More investigation requested regarding impact to mangroves.</li> <li>More information requested how Redbank interacts with the Port Hedland Masterplan – how much more can Port Hedland grown and intensify activity?</li> <li>Need to manage traffic to reduce risk of congestion.</li> <li>Allow for flexibility of land use.</li> <li>Impacts upon port operations.</li> </ul>
What do you see the future of Redbank Precinct being?	<p><b>Other</b></p> <ul style="list-style-type: none"> <li>Improve the entry statement to Redbank.</li> <li>Three comments stated they wanted to see no change to Redbank.</li> </ul>
(continued)	<ul style="list-style-type: none"> <li>Midges issues at Redbank.</li> </ul>

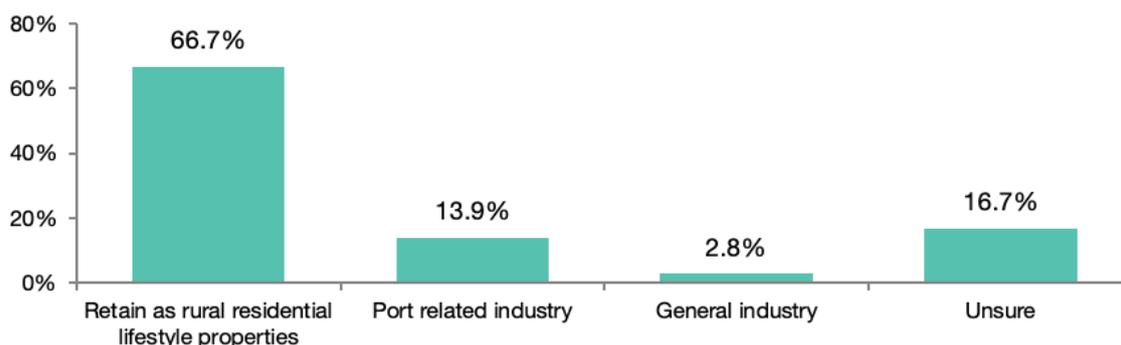


Figure 12: Port Hedland Community Survey question 17: ‘Redbank currently contains a mix of rural residential and rural industrial land uses. What do you see the future of Redbank Precinct being?’ (n=36)

Questions	Port and Industry key themes and observations
<p>Have we missed anything important to the port and industry precincts?</p>	<p><b>Natural environment</b></p> <ul style="list-style-type: none"> <li>• Potential for flooding from nearby rivers.</li> <li>• Support to plant more trees and other vegetation around the perimeter of the port areas and along streets. Species suggested included saltbush, moringa and boab, and also edibles.</li> <li>• New trees need ongoing maintenance to ensure survival.</li> <li>• Protect rivers and other waterways from chemical run off, rubbish and contaminants.</li> </ul> <p><b>Sustainability Initiatives</b></p> <ul style="list-style-type: none"> <li>• Explore alternative and renewable energy industries, including solar, wind and hydrogen.</li> <li>• Strong support to plant more trees.</li> </ul> <p><b>Transportation</b></p> <ul style="list-style-type: none"> <li>• Demand for more freight access, suggest Redbank as an industrial area and transport hub.</li> <li>• Link from Boodarie to port.</li> <li>• Increase international tourism opportunities by upgrading airport and Indigenous carrier operating out of airport.</li> <li>• Currently there is a lot of roadtrain traffic, keep out of Redbank residential area.</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Need incentives and strategies to increase commercial, retail and associated facilities to increase economic activity within the community.</li> <li>• Access for fishing.</li> <li>• Suggestion for subsidised housing/utilities for non-mining residents.</li> <li>• Reduce barriers for South Hedland Campus as a possible opportunity to co-locate with other services (eg. Aboriginal Corporations).</li> <li>• Mines and mine leases in care and maintenance (State Government).</li> <li>• Possible location for future mining expansion could be accommodated at Boodarie.</li> </ul>

## 5.5 Town of Port Hedland

The Overview of Port Hedland Snapshot was presented to community members and stakeholders during several workshops and pop-up sessions. This poster and associated information was available via the online survey and the Town website.

Shaping Hedland's Future
OVERVIEW OF KEY ISSUES

We are seeking preliminary input to help shape Hedland's Local Planning Strategy which will guide land use planning and development for the next 10 to 20 years.

Your input into the preparation of the Local Planning Strategy will seek to build on the comprehensive engagement previously undertaken by the Town which informed the preparation of the Town's Strategic Community Plan, under the headings of community, economy, built and natural environment.

How can we plan for a more integrated community?

What community infrastructure & services would support growth?

Community Considerations

- High quality health and education services essential to retain population and support growth
- Improve amenity and sense of place in South Hedland
- Shortage in childrens and aged care services

Where can future growth occur?

What infrastructure do we need to support future growth?

Built Environment Considerations

- Planning for remote Aboriginal settlements
- Known constraints limit the potential for expansion in Port Hedland
- South Hedland includes serviced and zoned land ready for development
- South Hedland to be the Centre for shopping, commercial land and civic and community uses
- Sporting Precinct master plans and Sportbank Mactra are key amenity enhancement projects

What inland environmental features can we recognise?

Natural Environment Considerations

- Coastal assets include beaches, mangroves, turtle nesting habitats, foreshore reserves
- Inland assets include migratory bird habitat, rivers, groundwater

What are the economic opportunities for the pastoral industry?

Economic Considerations

- Mining will continue to be the key economic driver of the region
- Need to develop a clear strategy to direct future industrial development
- Need to identify strategies to support Pastoral, Tourism, Aboriginal and small business opportunities

Town of Port Hedland

element  
Town and region of choice

Figure 13: Overview of Port Hedland snapshot poster presented to participants showing economic and environmental opportunities.

Table 4 below provides a summary analysis of comments collected by participants.

Table 4: Feedback summary for Snapshot Four – Overview of Port Hedland

Questions	Overview of Port Hedland key themes and observations
<b>Category: Natural Environment and Economy</b>	
<p>Hedland is rich with environmental assets, which we value and conserve.</p>	<p>The following reflects considerations by the community that are in addition to those proposed by/previously heard by the project team, that is:</p> <ul style="list-style-type: none"> <li>• Major waterways, including the De Grey River, Yule River, Turner River and Shaw River.</li> <li>• Wetland habitats, including De Grey and Leslie Saltfields system.</li> <li>• Mangrove ecosystems, habitat for land and sea creatures and important for water quality and shoreline stabilisation.</li> <li>• Beaches and turtle nesting habitats.</li> </ul>
<p>What other important considerations can we be aware of? What other inland or coastal environmental features can we recognise?</p>	<ul style="list-style-type: none"> <li>• Need to formalise and manage 4WD access to the coast to protect dune systems.</li> <li>• De Grey and Yule River public drinking water source areas.</li> <li>• Bushfire risk to remote communities due to high fuel load and limited access alternatives.</li> <li>• Potential impacts of a changing climate.</li> </ul> <p><b>Tourism opportunities</b></p> <ul style="list-style-type: none"> <li>• Cultural tourism that is created and delivered by local Aboriginal communities, including education, eco-tourism and showcasing traditional practice on Country (e.g. fishing, crabbing).</li> <li>• Accommodation opportunities including caravan parks (at Condon and Shellborough), station and community stays.</li> <li>• Glamping and eco-camping accommodation on stations.</li> <li>• Hot air ballooning (hopping) to stations and Aboriginal communities.</li> <li>• Cultural education and experiences both in the town centre and on Country.</li> <li>• Recreational activities such as fishing and camping in nature.</li> <li>• Better access to wetlands with infrastructure and information (e.g. Pretty Pool and Finucane Island mangroves).</li> <li>• Improve quality and quantity of rest stops, overnight trailer stay areas with amenities.</li> <li>• Suggestion to invest in an Aboriginal airline (employment, training pathway, increase service industry).</li> </ul> <p><b>Acknowledging and imbedding traditional knowledge</b></p> <ul style="list-style-type: none"> <li>• Dual naming of Town of Port Hedland natural assets and public spaces.</li> <li>• Increase economic opportunities for Aboriginal communities, particularly in business and tourism.</li> <li>• Reserves managed by Aboriginal rangers.</li> <li>• Promotion of artefacts and artwork (e.g. petroglyphs in the natural environment).</li> <li>• Enhance the economic offerings of the Yule River with new amenities and cultural centre.</li> <li>• Ensure consultation with Traditional Owners regarding fishing areas.</li> </ul> <p><b>Economic expansion</b></p> <ul style="list-style-type: none"> <li>• Mining may be a limiting factor for the value placed on environmental assets.</li> <li>• Lack of infrastructure to support economic activities outside of the townsites.</li> <li>• Alternative technologies required to look into different resource opportunities (e.g. gold).</li> <li>• Improve road infrastructure into Port Hedland.</li> <li>• Urban development can increase construction sector and employment.</li> </ul>

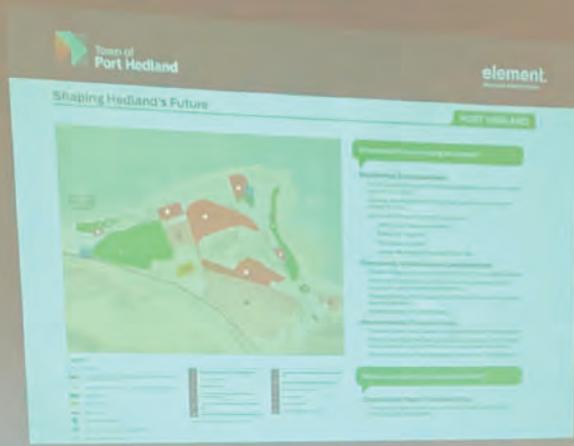
Questions	Overview of Port Hedland key themes and observations
<p>Hedland is rich with environmental assets, which we value and conserve.</p> <p>What other important considerations can we be aware of? What other inland or coastal environmental features can we recognise?</p>	<p><b>Fauna and flora conservation</b></p> <ul style="list-style-type: none"> <li>• Reach out to / form local environmental groups.</li> <li>• Migratory birds.</li> <li>• Whales.</li> <li>• Better management of fish habitats and recreational fishing, improved and appropriate access for locals to fishing beaches.</li> <li>• Manage invasive flora and fauna.</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Ensure that industry does not dominate visual amenity of the natural environment.</li> <li>• Marine environment and inter tidal coral reefs.</li> <li>• Inland flooding - water comes from underground.</li> </ul>
<p>(continued)</p>	
<p>Across Hedland there are a number of pastoral land use opportunities.</p> <p>What other important considerations can we be aware of? What other economic opportunities exist for the pastoral industry?</p>	<p>The following reflects considerations by the community that are in addition to those proposed</p> <ul style="list-style-type: none"> <li>• by/previously heard by the project team, that is:</li> <li>• Intensive agriculture on productive land.</li> <li>• Unique station tourism opportunities.</li> <li>• Formal cattle stockyards and export infrastructure.</li> <li>• State Government pastoral land reform.</li> <li>• Encouraging diversification of pastoral land.</li> </ul> <p><b>Options for new agricultural and land industries</b></p> <ul style="list-style-type: none"> <li>• Build a new abattoir for local food production and export market.</li> <li>• Algae farms.</li> <li>• Aquaculture / hydroponic farming.</li> <li>• Salt harvesting industry.</li> <li>• Solar and wind farms.</li> <li>• Native foods as an Indigenous agricultural enterprise (eg. Gubinge /Kakadu Plum).</li> <li>• Marine and air travel infrastructure.</li> <li>• Native title opportunity to diversify mining activity/leases and pastoral leases.</li> </ul> <p><b>Tourism on pastoral lands and Port centre</b></p> <ul style="list-style-type: none"> <li>• String support for Aboriginal-lead tourism businesses.</li> <li>• Centralised central centre for information and cultural experiences.</li> <li>• Public access to coastal camping grounds.</li> <li>• Promote the Town as anything but a mining town.</li> <li>• Helicopter tour of the Port.</li> </ul> <p><b>Sustainability initiatives</b></p> <ul style="list-style-type: none"> <li>• Renewable energies (wind, solar and hydrogen).</li> <li>• Regenerative agricultural practices.</li> <li>• Water reuse.</li> <li>• Tyre recycling.</li> <li>• What are other ways to re-purpose mine-sites other than rehabilitation?</li> </ul>

Questions	Overview of Port Hedland key themes and observations
<p>Across Hedland there are a number of pastoral land use opportunities.</p> <p>What other important considerations can we be aware of? What other economic opportunities exist for the pastoral industry?</p>	<p><b>Increasing employment</b></p> <ul style="list-style-type: none"> <li>• How can we attract workers to work in pastoral industries that are lower paid than mining?</li> <li>• Construction boom cycles are generally for 5 years on and 5 years off.</li> <li>• Harnessing the migration of people to work in Port Hedland.</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Growth of Town strongly tied to exports.</li> <li>• Streamline Development Application processes that have the ability to further enhance and consolidate the Town Centre of Port Hedland.</li> <li>• Need to understand linkage between the Port, the Town, Regional Industry/Pastoralists and Aboriginal Communities.</li> </ul>
(continued)	
<p>Economic opportunities in Hedland can be constrained by access to water and land. What economic opportunities could be realised if we can identify strategies to improve access to water and land in Hedland?</p>	<p>The following reflects considerations by the community that are in addition to those proposed by/previously heard by the project team, that is:</p> <ul style="list-style-type: none"> <li>○ Mining support services.</li> <li>○ Manufacturing, construction and hire services.</li> <li>○ Wellbeing, healthcare and social assistance.</li> <li>○ Hospitality, retail and tourism.</li> </ul> <ul style="list-style-type: none"> <li>• Steel manufacturing.</li> <li>• Access to coastal areas for fishing tourism, aquaculture and marina water activities.</li> <li>• Open up water and land for tourism opportunities.</li> <li>• Flight training school near the airport.</li> <li>• Create a community lagoon for swimming.</li> <li>• Increase focus of importing at the port.</li> </ul>

Questions	Overview of Port Hedland key themes and observations
<p><b>What role could local government play in supporting the development of economic opportunities?</b></p>	<p><b>Encouraging investment and support for local businesses</b></p> <ul style="list-style-type: none"> <li>• Remove the barriers for small business (e.g. food trucks) to create more diversity in activities and offerings for the community.</li> <li>• Provide guidance and support (e.g. grants) to encourage investment and help small businesses thrive, be approachable to businesses owners.</li> <li>• Encourage well-known companies, like Bunnings, to set up in Port Hedland.</li> <li>• Examine how high costs in certain areas (e.g. airfares, tourism facilities) could be reduced to encourage businesses to the area and to attract visitors.</li> </ul> <p><b>Community wellbeing</b></p> <ul style="list-style-type: none"> <li>• More markets and festival run by the local government, promote art and crafts sector.</li> <li>• Create a community garden.</li> <li>• Activate the South Hedland Town Square.</li> <li>• Implement programs that involve the community and improve the image of the town, such as town beautification programs.</li> </ul> <p><b>Leadership</b></p> <ul style="list-style-type: none"> <li>• Work closer with State and Federal Government to advocate for improvements to the Town, advocate for the region.</li> <li>• Proactively keep the local community informed of economic opportunities.</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li>• Industrial tourism.</li> <li>• Examine implementing jointly-managed traditional owner conservation reserves, similar to Broome.</li> <li>• Provisions to ensure safe design of houses and public areas.</li> <li>• Support more vocational education options.</li> </ul>

## 6. Recommendations

To ensure a well-informed strategic planning framework for the Town, which is responsive to the needs of all stakeholders, it is recommended that this Community and Stakeholder Engagement Outcomes report informs the preparation of the Local Planning Strategy and preparation of a new Local Planning Scheme.



# 7. Appendices

## Appendix A – Fact sheet announcement and invitation



# SHAPING HEDLAND'S FUTURE

## Local Planning Strategy and Scheme Review

### Port Hedland land use planning and development study 2020 – 2040

**element** has been engaged to review the Port City Growth Plan and Local Planning Scheme No. 5 to develop a revised Local Planning Strategy and Local Planning Scheme, which will guide land use and development within the Town of Port Hedland.

To inform the review of the Local Planning Strategy and Local Planning Scheme there is a need to revise population, economic growth and land use aspirations within the Port City Growth Plan.

The Port City Growth Plan was a document prepared at the height of the mining boom, with aspirations based on a rapid City growth scenario. Development plans are currently projected for an urban centre to accommodate approximately 27,000 people by 2040.

### Local Planning Strategy and Scheme

The next Local Planning Strategy will establish the strategic direction for growth and development within the Town of Port Hedland over a 10-20 year planning horizon.

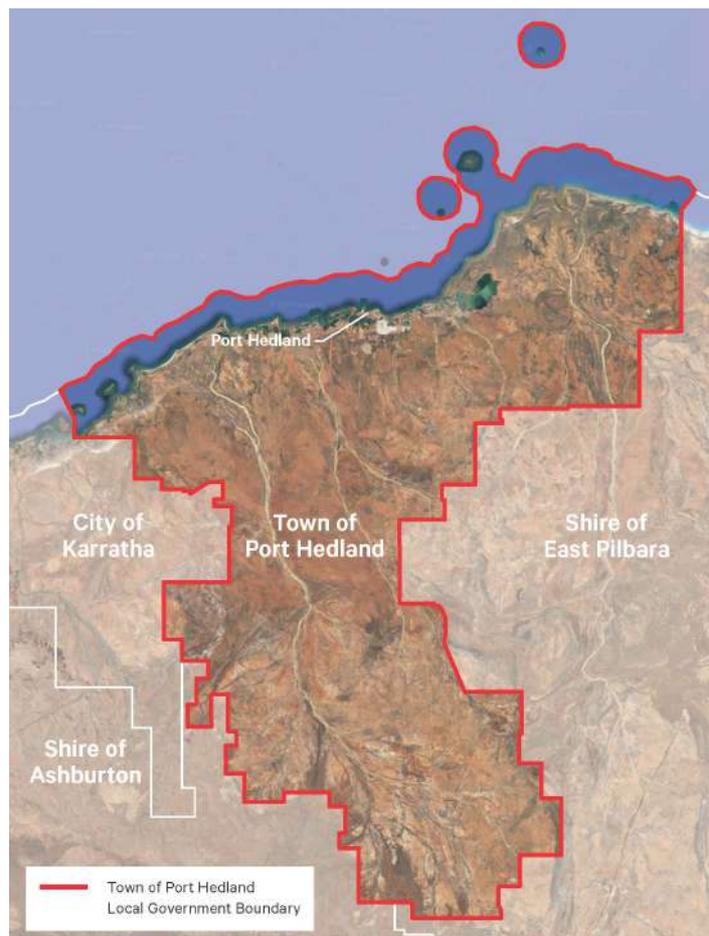
The revised Local Planning Scheme No. 7 will be the principal statutory document to guide land use and development within the Town outside of the West End precinct and will reflect standardised structure and content as required by legislation.

The update of the Local Planning Strategy and Local Planning Scheme will be informed by a range of technical studies, input from stakeholders and community and recent strategies and projects prepared by State and local government.

### Land use planning study area

The study area covers the local government area of Port Hedland except for the area west of McGregor St and Lukis Street.

The study area is contained within the area marked in red in this image, with the exclusion of the west end precinct.



The Department of Planning, Lands and Heritage have prepared Improvement Plan No. 50 for the West End precinct following consideration of the Dust Management Taskforce recommendations.

Improvement Plan No. 50 will provide the statutory basis for the preparation and implementation of a separate improvement scheme over the West End precinct.

The general area indicated in yellow is outside of the land use planning study (precise area to be determined).



## Stakeholder and community engagement

Preparation of the Local Planning Strategy and Local Planning Scheme will be informed by community and stakeholder engagement to understand unique opportunities and constraints facing land planning in each precinct.

The Local Planning Strategy will identify strategies and actions to address relevant issues and the Local Planning Scheme will provide statutory controls to guide decision making for land use and development.

Preliminary meetings are underway in Port Hedland and public engagement is planned for mid-November to discuss key challenges, opportunities and ambitions.

### Shaping Hedland Land Planning Study – Engagement Information

Public engagement is being planned for November 2019.

To receive updates for the land planning study or to express interest in public engagement please send your details and enquiries to:

[lps@porthedland.wa.gov.au](mailto:lps@porthedland.wa.gov.au)

## **Appendix B – Shaping Hedland’s Future letter of invitation**



25 October 2019

Dear Sir/Madam,

### **Shaping Hedland's Future: Local Planning Strategy and Local Planning Scheme Review**

The Town of Port Hedland (Town) have commenced a land use study to review the Local Planning Strategy and form a new Local Planning Scheme (Scheme).

The land use study follows on from the Town's Strategic Community Plan (2018 – 2028) and Corporate Business Plan (2018 – 2022). Feedback received in preparation of those two documents forms the basis for the land use study.

The study objectives are to:

*Seek insight on land use and development issues facing the Town and subsequently clarify those issues, which need to be addressed as part of the Scheme review process.*

*Inform the preparation of a new Local Planning Scheme generally in accordance with the Model Scheme Text, which responds to long term planning directions for the local government and zoning rationale contained within the Local Planning Strategy.*

#### **Where we are now**

A consultant team led by **element** have been appointed to assist the Town to review the Scheme. The phases involved in the review are:

1. Review and gap analysis (current phase)
2. Preliminary public engagement (until November – see key dates on the attached)
3. Preparation of the Scheme (until early 2020)
4. Public consultation (early 2020 – 90-day statutory consultation period)
5. Adoption of the Local Planning Strategy and new Local Planning Scheme.

Conversations have been ongoing since August 2019, when the project team met with a number of community members and stakeholder groups in Port Hedland. These conversations were primarily to confirm the approach and content for public engagement.

Thank you to all of those community members and organisations who have taken the time to meet with representatives of the project team so far.

A number of key issues are emerging, which will be reflected as a series of snapshots and precinct highlights. This information will be presented through the next phase of public engagement, planned to occur in November 2019.

#### **We invite your comment**

In this respect, we are pleased to invite you and/or your organisation to raise issues or matters, which you believe are relevant to the preparation of a new Strategy and Scheme.

The following outcome areas will guide feedback to align with the intentions of the Strategic Community Plan and Corporate Business Plan:

##### Community

- Recreation and open space

#### **Town of Port Hedland Office**

Civic Centre, McGregor Street, Port Hedland, WA 6721

PO Box 41, Port Hedland

T: (08) 9158 9300 | F: (08) 9158 9399

E: council@porthedland.wa.gov.au

www.porthedland.wa.gov.au

- Community services
  - Heritage and culture
- Economy
- Employment
  - Local business opportunities
  - Port and industry
  - Tourism
  - Pastoral
- Built environment
- Population and housing
  - Industrial land
  - Commercial and retail land
  - Priority land release considerations
- Natural environment
- Coastal environment
  - Flooding
  - Bushfire
  - Groundwater and natural resources

There are a number of opportunities to engage. In offering feedback, you are welcome to provide your comments in person at one of the upcoming events facilitated by the planning team at **element**. Details are on the attached information sheet.

Alternatively, you can take the survey on the Town website from early November 2019. At this time, you can also read more about the project, register to receive project updates, find out about the timeline for engagement and follow the link to download the current Local Planning Scheme.

We strongly encourage you/your organisation to liaise with us early to ensure the draft Strategy and Scheme is well considered and is a true reflection of where the community and stakeholders sit in relation to growth and development in the Town.

We look forward to hearing from you.

Yours sincerely,



Chaz Roberts  
**Manager Town Planning & Development**

# SHAPING HEDLAND'S FUTURE

## Local Planning Strategy and Scheme Review

### What is happening?

A land use study has started, which will guide land planning and development within the Town of Port Hedland for the next 10-20 years.

The study builds on engagement outcomes, which informed the Strategic Community Plan (2018 - 2028) and Corporate Business Plan (2018 - 2022).

The team led by consultants from **element** have met with several local community members, representatives, local groups, government and industry stakeholders in Port Hedland and Perth.

A site visit was undertaken by the project team in late August to hear first-hand the important issues within the Town.

### What's next?

The project team are continuing engagement to hear broader public interests to inform Local Planning Scheme No. 7.

The aim is to prepare a number of local precinct snapshots, which reflect what is known, and then engage widely on the content with the community and other interested parties during November.

Following this engagement in November a draft Local Planning Strategy and Scheme will be prepared to be advertised for public consultation in early 2020.

### However... you may ask the question, what is a Local Planning Scheme?

A local planning scheme has a number of purposes. For instance, a Local Planning Scheme will establish the framework in which decisions are made in relation to land use and development. It will zone and reserve land to manage land use and development in accordance with the Local Planning Strategy.

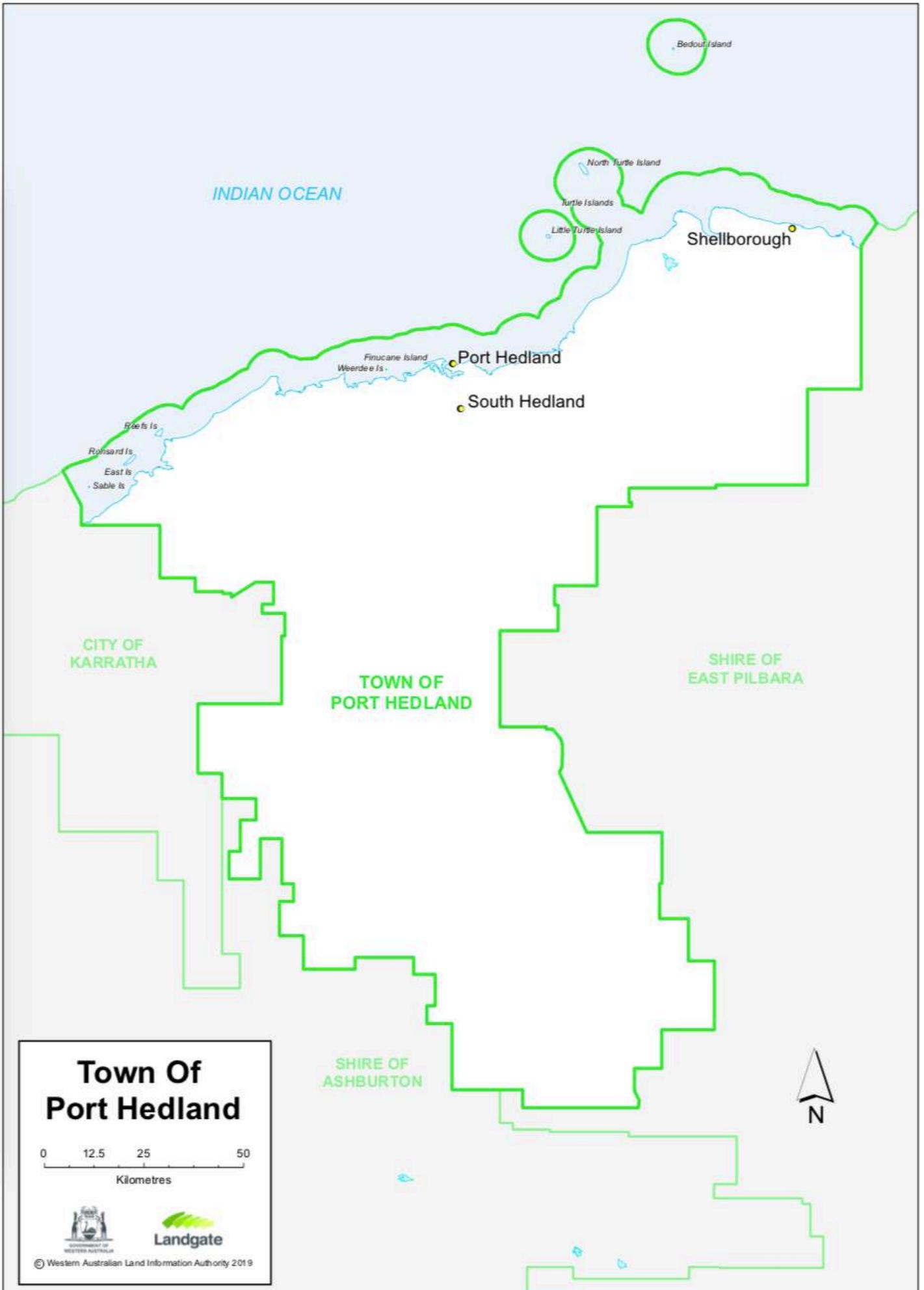
### Then... what is a Local Planning Strategy?

A Local Planning Strategy will establish strategic direction for growth and development within the Town of Port Hedland. It is likely to remain relevant for the next 10-20 years.

The Strategy will identify strategies and actions to address relevant issues and the Scheme will provide statutory controls to guide decision making for land use and development.

### What area of land will be covered?

The study area is entirely within the Town of Port Hedland as shown in the image over the page, with the exclusion of the west end precinct.



**Town Of Port Hedland**

0 12.5 25 50  
Kilometres

© Western Australian Land Information Authority 2019

### **Does this review include the West End of Port Hedland?**

No, although the precise area is to be determined, the general area of the West End precinct is outside of this land use planning study.

The Department of Planning, Lands and Heritage have prepared Improvement Plan No. 50 for the West End precinct following consideration of the Dust Management Taskforce recommendations.

Improvement Plan No. 50 will provide the statutory basis for the preparation and implementation of a separate improvement scheme over the West End precinct.

### **How does this relate to the Pilbara City vision for Port Hedland?**

The Port City Growth Plan was a document prepared at the height of the mining boom, with aspirations based on a rapid city growth scenario.

To inform the review of the Local Planning Strategy and Local Planning Scheme there is a need to revise population, economic growth and land use aspirations within the Port City Growth Plan.

### **What is the current projection for growth in Port Hedland?**

Development plans are currently projected for an urban centre to accommodate approximately 27,000 people by 2040.

### **How might it effect you?**

The new local planning scheme will set out controls and requirements for how you, your neighbours and others can use and develop properties. These controls ensure development is compatible with state policy and local community vision for the Town of Port Hedland.

### **Does this mean your property will be rezoned?**

It is too early in the process to give an indication as to whether individual properties will be rezoned. The Local Planning Strategy is in the process of being formulated and is a high-level document which establishes the strategic direction for land use planning within the Town.

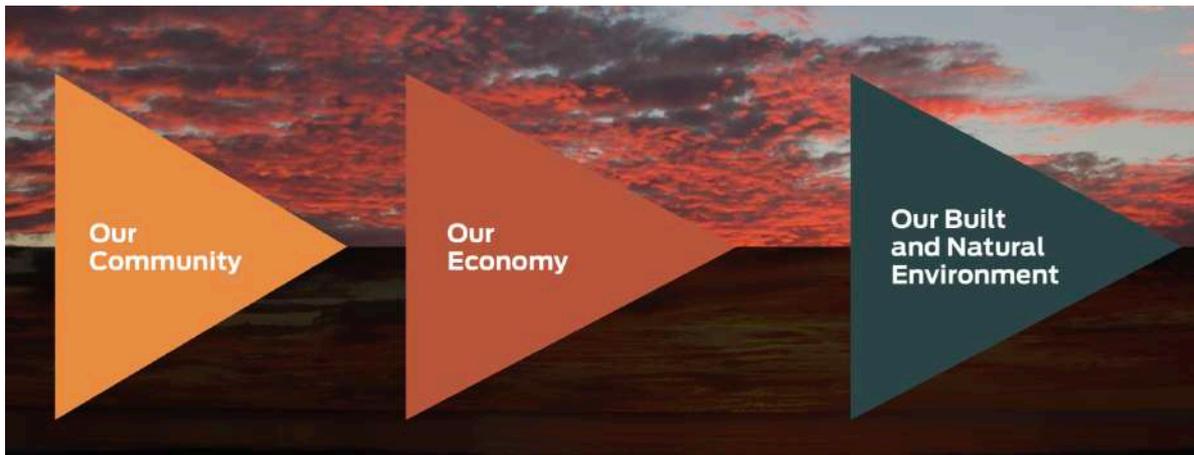
There will be further opportunity to comment on proposed zoning of property once the draft Local Planning Strategy and Scheme have been developed and are in a form acceptable for public consultation.

### **Will this effect your rates?**

Until a rating strategy is formally considered and released for public consultation, we are unable to comment on how this may affect rates raised on a property. If there are changes proposed to the zoning of your property and you wish to see if there has been a change in the way your property will be rated, please await the release of the rating strategy for public consultation prior to submitting an enquiry to the Rates Department at the Town.

### **How does the Local Planning Strategy relate to the Strategic Community Plan?**

The preparation of the Local Planning Strategy will seek to build on the comprehensive engagement previously undertaken by the Town which informed the preparation of the Town's Strategic Community Plan 2018-2028, under the following headings of community, economy, built and natural environment.



Where relevant to land use planning outcomes, the Town will seek to align the Local Planning Strategy with the outcomes and goals identified within the Strategic Community Plan to ensure that there is a clear line of sight between the strategic corporate objectives of the Town and the land use strategies and actions to be identified within the revised Local Planning Strategy.

### How can you be involved and have your say?

A number of opportunities exist to have your say and help the project team to understand unique opportunities and constraints facing land planning in each precinct. Preliminary meetings are underway in Port Hedland and public engagement is planned to discuss key challenges, opportunities and ambitions.

If you would like to be engaged on the draft Local Planning Strategy and Scheme, please attend one of the following engagement events.

While the roundtable conversations are targeted for specific groups, the information and process will be the same. You are welcome to pick the event, which best suits your availability.

Who:	Public, landowners, community groups	Business, industry	Public	Public
What:	Roundtable conversation	Roundtable conversation	Interactive information display	Interactive information display
When:	<b>Tuesday</b> <b>12 Nov</b> <b>6pm-8pm</b>	<b>Wednesday</b> <b>13 Nov</b> <b>6pm-8pm</b>	<b>Thursday</b> <b>14 Nov</b> <b>2pm-6pm</b>	<b>Saturday</b> <b>16 Nov</b> <b>9am-1pm</b>
Where:	Wanangkura Stadium South Hedland	Civic Centre Town of Port Hedland	South Hedland Shopping Square	Port Hedland Boulevard Shopping Mall
How:	RSVP on eventbrite	RSVP on eventbrite	Drop by anytime	Drop by anytime

To attend one of the roundtable conversations, please RSVP on Eventbrite (prior to 7 November for catering purposes).

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To receive updates for the land planning study or to express interest in further engagement please send your details and enquiries to:

[ips@porthedland.wa.gov.au](mailto:ips@porthedland.wa.gov.au)

## **Appendix C – Fact sheet schedule of engagement events**



# SHAPING HEDLAND'S FUTURE

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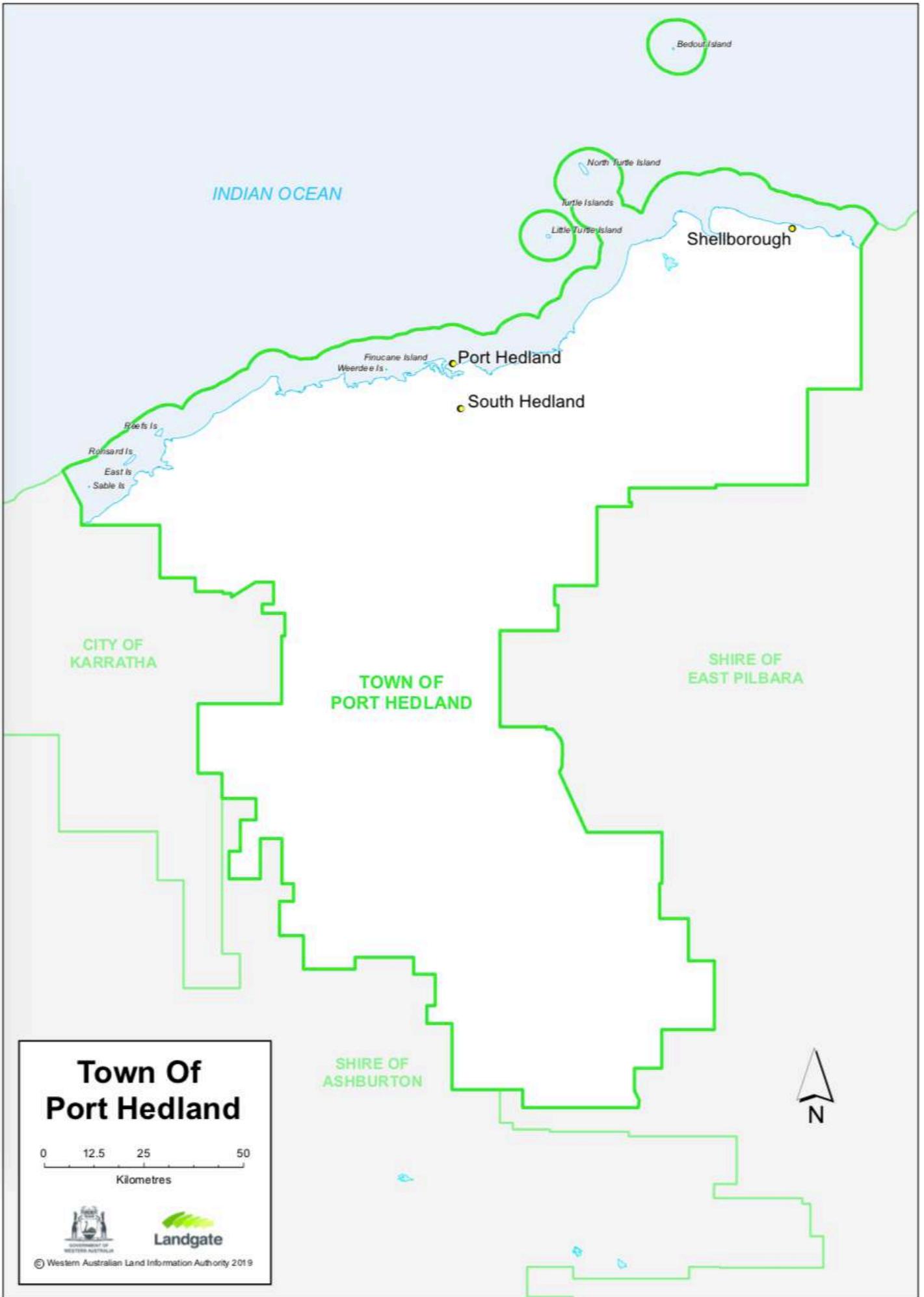
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[lps@porthedland.wa.gov.au](mailto:lps@porthedland.wa.gov.au)

## **Appendix D – Shaping Hedland’s Future snapshot posters**



We are seeking preliminary input to help shape Hedland's Local Planning Strategy which will guide land use planning and development for the next 10 to 20 years.

Your input into the preparation of the Local Planning Strategy will seek to build on the comprehensive engagement previously undertaken by the Town which informed the preparation of the Town's Strategic Community Plan, under the headings of **community, economy, built and natural environment**.

**How can we plan for a more integrated community?**

**What community infrastructure & services would support growth?**

### Community Considerations

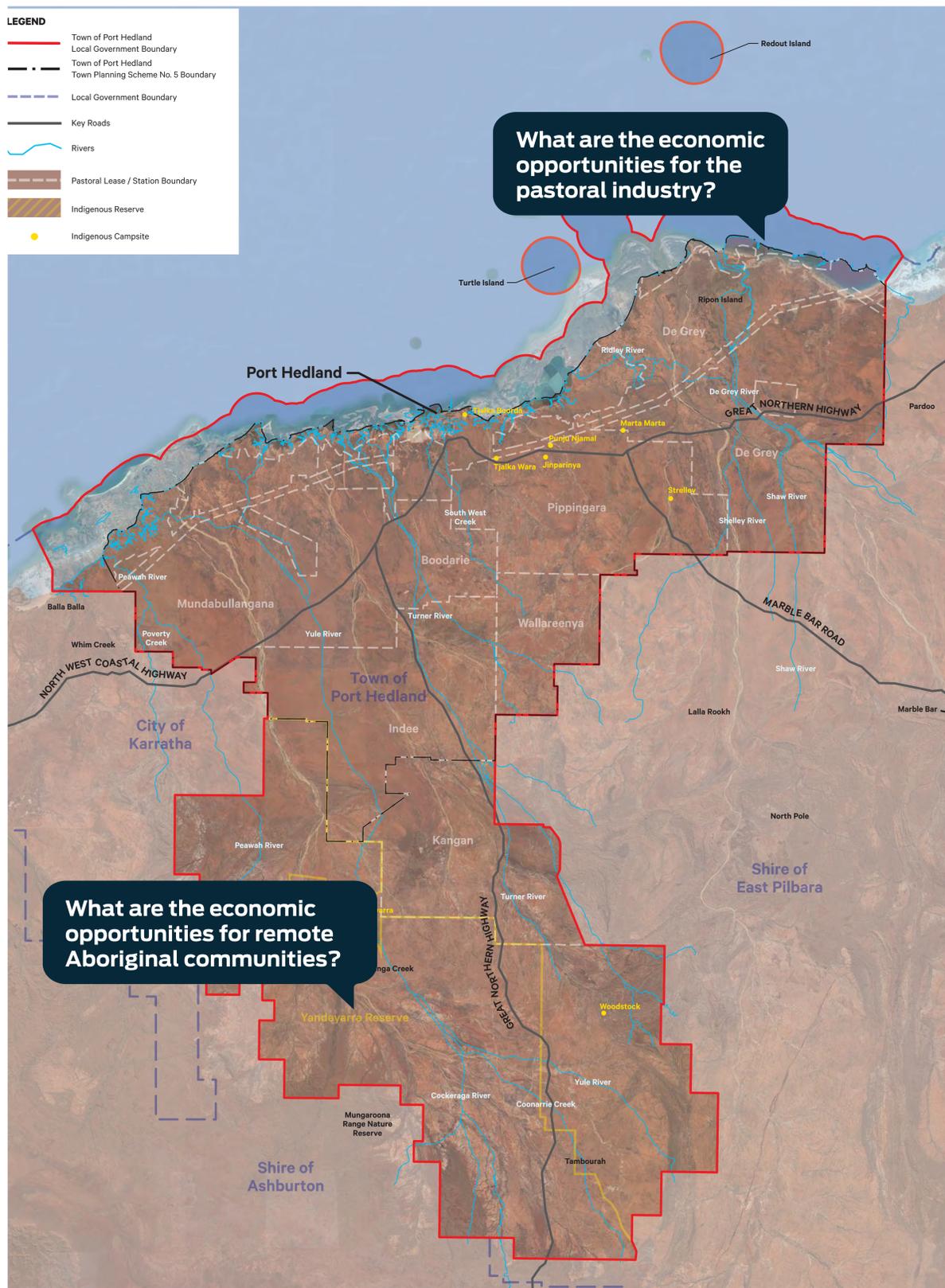
- High quality health and education services essential to retain population and support growth
- Improve amenity and sense of place in South Hedland
- Shortage in childcare and aged care services

**Where can future growth occur?**

**What infrastructure do we need to support future growth?**

### Built Environment Considerations

- Planning for remote Aboriginal settlements
- Known constraints limit the potential for expansion in Port Hedland
- South Hedland includes serviced and zoned land ready for development
- South Hedland to be the Centre for shopping, commercial land and civic and community uses
- Sporting Precinct master plans and Spoilbank Marina are key amenity enhancement projects



**What are the economic opportunities for the pastoral industry?**

**What are the economic opportunities for remote Aboriginal communities?**

**What inland environmental features can we recognise?**

**What are the economic opportunities for the pastoral industry?**

### Natural Environment Considerations

- Coastal assets include beaches, mangroves, turtle nesting habitats, foreshore reserves
- Inland assets include migratory bird habitat, rivers, groundwater

### Economic Considerations

- Mining will continue to be the key economic driver of the region
- Need to develop a clear strategy to direct future industrial development
- Need to identify strategies to support Pastoral, Tourism, Aboriginal and small business opportunities

### Population

2018



14,975 people

2041



High growth scenario:

**27,000 people**

Historical average growth scenario:

**20,500 people**

### Housing

2018



**7,667** dwellings

**66%** occupancy rate

2041

**4,630** new dwellings

**12,297** total dwellings

Occupancy rates

to reach **75.6%**

### What we have previously heard from the community

- View parks as an integral part of the urban setting to provide shade from the Pilbara sun, to beautify areas and to create community spaces
- Desire more investment in amenity and upgrades, to the foreshore, spoilbank and South Hedland Square
- Believe there needs to be a greater focus on enhancing the local character through built form, green star ratings and more options for mixed and affordable housing

## Industrial Land

### Land Supply and Demand

- 5,950 ha land zoned industrial of which 4,600 ha Crown land set aside for strategic port industry (Boodarie)
- 190 ha (3.2%) is considered developed
- 251 ha of general/light industrial land available within Wedgefield
- Additional service and light industrial land available within Kingsford Smith Business Park and future airport industrial precincts
- Zoned industrial land considered sufficient to meet demand to 2041 and beyond
- Key constraint to land development is resolution of native title

### Known major projects to drive demand

- Asian Renewable Energy Hub
- Pilbara Minerals (Stages 2 and 3)
- FMG (Iron Bridge)
- Santos (Dorado)
- BHP (South Flank)

### Other factors to determine demand

- Mining support services – anticipated growth in line with mining growth
- Construction projects – residential / other
- Growth in local manufacturing

### Where could noxious industry be located?

#### Land Use Considerations

- 192 lots within Wedgefield have approved caretakers' dwellings and anecdotally further dwellings exist within the estate
- Wedgefield and Redbank noxious industry conflicts with residential / caretakers' dwellings
- High capital expenditure to develop Boodarie for strategic and noxious industrial land uses

### Where could logistics based transport industry be located?

#### Transport and Logistics Considerations

- Road network west of Pinga Street in Wedgefield does not support heavy vehicle access – consider relocation of logistics based industry to other suitable industrial precincts

## Commercial and Retail Land

### Land Supply and Demand

- 120 ha of land zoned for commercial purposes, of which 58% is developed
- Current oversupply of retail floorspace
- While there is substantial land zoned for commercial (office) floorspace, there is a general shortage of built tenancy floorspace
- Anticipated demand for an additional 16,650 sqm of commercial / retail floorspace by 2041

### Where could new shops be located?

#### Retail and Commercial Considerations

- Substantial opportunity for retail and commercial expansion within South Hedland
- Shortage of built commercial office floorspace has resulted in vacant retail tenancies being used for offices

## Residential Land

### Where could future housing be located?

#### Housing Considerations

- Future residential land in Port Hedland is substantially constrained due to inundation and other factors
- Serviced and zoned residential land is immediately available in South Hedland
- There is a need to develop a logical approach to the staged release of residential land
- There is a need to provide land for housing that is able to respond to fluctuations in population as a result of the cyclic nature of the mining industry
- Need to address housing affordability and diversity that meets the needs of the community
- Limited demand for further rural-residential lot product
- Need to actively encourage residential workforce and manage social impacts of required workforce accommodation camps

### Key Facts

 **28.2%**  
of households are couples with children

 **31.7%**  
of population is aged between 25-49

 **50%**  
households that have access to two or more cars

 **16.3%** of the population reported doing some form of voluntary work

 **2,416**  
Aboriginal and Torres Strait Islanders living in Port Hedland

 **20.4%**  
of people in the Town of Port Hedland were born overseas

 **40%**  
proportion of people employed by the mining industry

 **2,176**  
number of people in the Town that had a tertiary qualification

#### What we have previously heard from the community

- Would like to see a greater investment in youth education and services
- Desire for greater involvement of Traditional Owners through the engagement processes
- People are less concerned with building more facilities and want to maximise use of existing facilities
- Perceive health services to be a fundamental priority
- Services to address the needs of ageing and the chronically ill
- Greater investment in volunteering and supporting a culture of volunteering
- Would like to see cheaper flight travel options
- Improved access to secondary / higher education options

#### What else have we heard

##### Public Open Space (Parks)

- There is a general over provision of public open space within Port Hedland whereas South Hedland has an undersupply
- South Hedland lacks general amenity and sense of place

##### Community Infrastructure

- New active recreation facilities and community infrastructure are planned to be delivered within precincts:
  - JD Hardie Youth Centre
  - South Hedland Integrated Sporting Precinct
  - McGregor Street Sporting Precinct

##### Other Services and infrastructure

- Shortage in childcare and aged care services
- High quality education and health services are seen as important to retain people in the community
- Dedicated community camp area for transient Aboriginal population

#### What additional community facilities do we need to plan for?

##### Community Infrastructure Considerations

- Need to provide inclusive and dedicated facilities that meet the needs of traditional owners
- Coastal based parks and infrastructure are vulnerable to coastal processes and extreme weather events
- Need to address quality and overall provision of parks within South Hedland
- Identified shortage in childcare facilities needs to be addressed as a priority
- New school infrastructure to service population growth

**Have we missed anything?**

### Key Facts

 **\$3.72 billion**  
Gross Regional Product  
**1.5%** of Gross State Product

 **10,629** Local Jobs  
 **7,415** Employed residents  
 **706** Local businesses

The economy has grown an average of **6.4%** per year between 2001 and 2018

**Mining maturity** mining activity has shifted from construction to production

### Sectors contributing to economic output

 **70%** Mining  
 **5%** Construction

 **8%** Transport, Postal and Warehousing

### Tourism Key Facts

 **250,000+** visits per year

 **50** flights per week

 **62%** domestic overnight visits

 **52%** business purpose

 **28%** holidays (nature & sporting)

 **2,160** caravans visits

What are the tourism opportunities?

### What are the local business opportunities?

#### Local business, retail and commercial opportunities

- **Mining support services** – include maintenance, transport and rehabilitation services
- **Construction** – continued activity will prove vital to maintaining economy
- **Manufacturing and Hire Services** – reliance on importation of products and services which could shift to local provision
- **Healthcare and Social Assistance** – fast growing industry for regional hubs
- **Retail Sector** – 5.2% of employment base, 63 shops in total. Under-supply of cafes, restaurants, groceries and shops

### How can the pastoral industry diversify?

#### Pastoral Opportunities

- Intensive agriculture on higher productive land
- Unique station tourism offer
- Formal stockyards and live export

Have we missed anything?

### These are the known economic drivers for Hedland

#### Port

- Berth upgrades to Port
- Lumsden Point (beef and lithium export)
- BHP Outer Harbour Project (longer term driver)

#### Urban Expansion Construction Projects

- PHIA capital works plan
- DevelopmentWA projects
  - Athol Street
  - The Stables
  - Western Edge
  - Boodarie Strategic Industrial Area
  - Hedland Junction (Wedgfield)
- Department of Communities housing projects

#### Mining Projects

- Asian Renewable Energy Hub
- Pilbara Minerals (Stages 2 and 3)
- FMG (Iron Bridge)
- Santos (Dorado)
- BHP (South Flank)

#### Community Construction Projects

- Sporting Precincts
  - South Hedland Integrated Sporting Precinct
  - McGregor Street Masterplan
  - JD Hardie Masterplan
  - Spoilbank Marina

### What we have previously heard from the community

- People value the economic benefits of living and working in Hedland but voiced challenges of high costs of living
- Understand the importance of the Port for the Hedland economy
- Believe the economy of Hedland needs to diversify by building small to medium enterprise
- Desire the development of strategies to support small and medium sized businesses
- Desire the establishment of a small business hub in South Hedland
- Perceive there is an opportunity to improve investment in the area's tourism industry and to capitalise on the area's unique cultural and natural features

### What environmental assets are important to you?

#### Key Environmental Assets

- **Major waterways** – including the De Grey River, Yule River, Turner River and Shaw River
- **Wetland habitats** – including De Grey River and Leslie Saltfields system
- **Mangroves** – important ecosystem for a variety of land and sea creatures, improve water quality and help stabilize shorelines
- **Beaches** – Cemetery, Pretty Pool and Cooke Point beaches provide turtle nesting habitat

### What we have previously heard from the community

- Treasure the natural environment and see it as an important Hedland asset to be nurtured and protected
- Want sustainable practices like recycling and green community initiatives
- Desire more investment in amenity and upgrades to the foreshore, including Spoilbank Marina
- Would like to see more programs to build understanding of Aboriginal cultural heritage, connection to land and how it brings the landscape to life
- Remain concerned about dust and industry's effect on the environment

### These are some of the known environmental issues for Hedland

#### Coastal

- Coastal flooding of land in Port Hedland during major storm events
- Coastal erosion risk for land adjacent the foreshore in Port Hedland
- Need to formalise and manage 4WD access to the coast to protect dune systems

#### Groundwater

- De Grey and Yule River public drinking water source areas
- Land use controls and management to protect public drinking water over these aquifers

#### Surface Water

- Inundation of low lying residential areas and roads from inland flooding

#### Climate

- Port Hedland is the most cyclone prone area in the southern hemisphere
- Semi-arid tropical environment conducive to mosquito breeding

#### Climate Change

- Potential rainfall decline, increased evaporation, extreme weather events and bushfire risk
- Vulnerability of coastal infrastructure as a result of sea level rise
- Potential impacts on livestock productivity

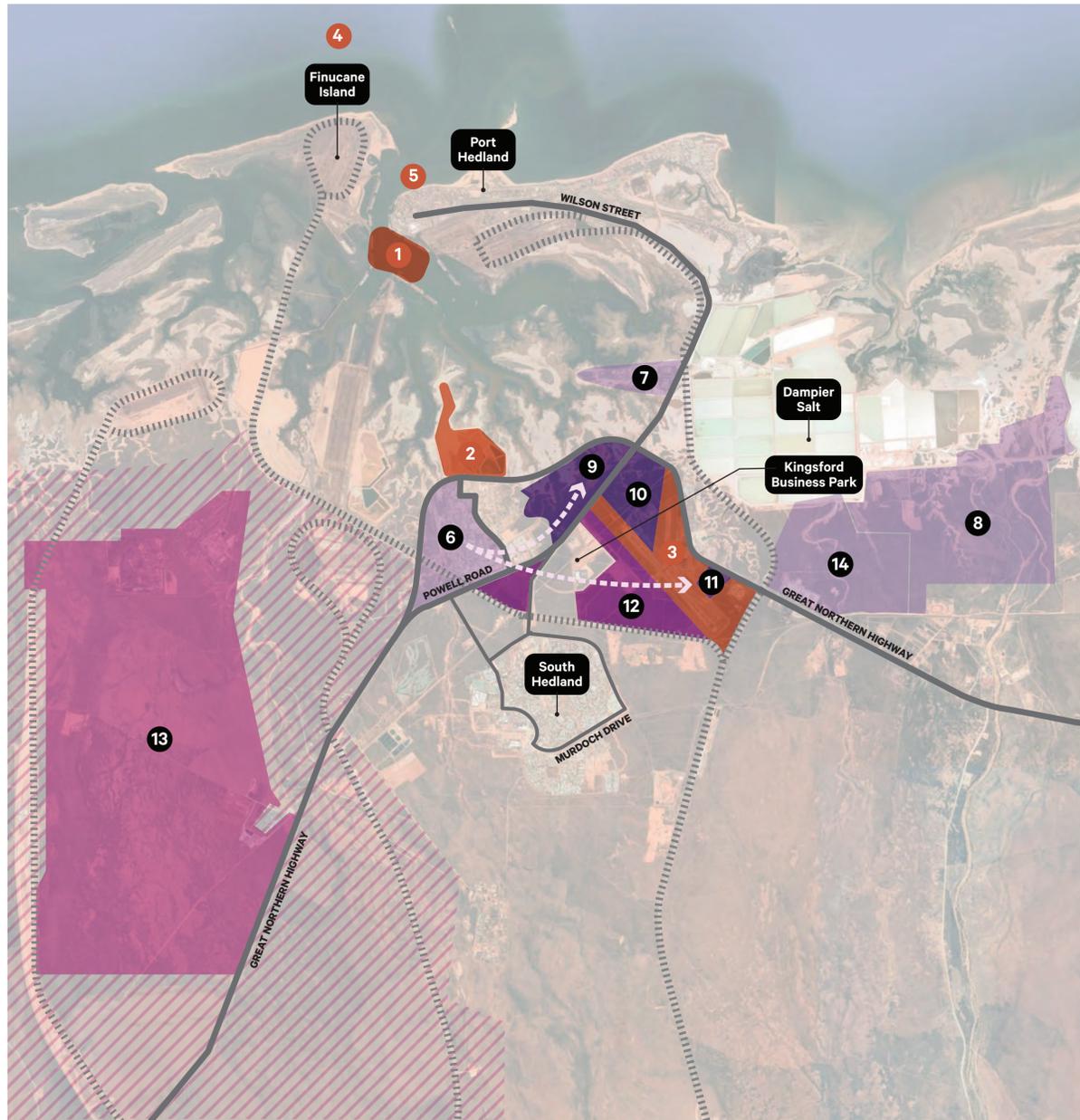
#### Bushfire

- Bushfire risk to remote communities due to high fuel load and limited access alternatives

#### Air Quality

- Air quality and amenity impacts within Port Hedland due to mining activities

Have we missed anything?



### Legend

- Key Roads
- Rail Corridor
- General Industry
- Transport Logistics Expansion
- Industrial Expansion
- Strategic / Heavy Industry  
– Outer harbour convenor corridor, potential stockyards, port dependent operations, processing, utilities, noxious industry, power station
- Potential Relocation of Transport Logistics Use Over Time
- Strategic / Heavy Industry Buffer

### Known Economic Drivers

- 1** Port Berth Expansion
- 2** Lumsden Point General Cargo and Logistics Hub
- 3** Port Hedland International Airport Expanded Operations
- 4** Port Hedland Outer Harbour (Long Term)
- 5** Live Exports and Cruise Ships

### Industrial Precincts

- 6** Wedgefield (West of Pinga Street)
- 7** Redbank (To Transition to Industrial)
- 8** Dampier Salt Expansion Area
- 9** Wedgefield Expansion Area
- 10** Port Hedland International Airport (Northern Precinct)
- 11** Port Hedland International Airport (Freight Precinct)
- 12** Port Hedland International Airport (Industrial Precinct)
- 13** Boodarie Strategic Industrial Area
- 14** Explosives Reserve

### Land Supply and Demand Considerations

- Zoned light and general industrial land is considered sufficient to meet demand to 2041 and beyond
- 5,950 ha of land is set aside for strategic / heavy industry (Boodarie)/ 190 ha (3.2%) of this is considered developed
- 251 ha of general/light industrial land is available within Wedgefield (Hedland Junction)
- Additional light industrial land is available within Kingsford Smith Business Park and future airport industrial precincts

### Wedgefield Considerations

- Noxious industry and freight transport create hazards for residential land use
- 192 lots within Wedgefield have approved caretakers' dwellings and anecdotally further dwellings exist within the estate
- Road network west of Pinga Street may not support heavy vehicle access
- Consider relocating noxious industry and transport logistics land use west of Pinga Street to other suitable industrial precincts

### Redbank Considerations

- Currently contains a mix of rural residential and rural industrial land uses
- Opportunity to transition to an industrial precinct due to proximity to port (as identified in Port City Growth Plan)

### Port Considerations

- Planned increase in berthing facilities to increase capacity of Port
- BHP Outer Harbour project a long term project opportunity
- Lumsden Point to provide berths for minor operators (i.e. lithium, cattle)
- Opportunity to provide for cruise ships and live export markets
- Finucane Island boat ramp popular fishing location

### Where could noxious industry be located in the short term?

#### Boodarie Considerations

- Boodarie is currently un-serviced and requires high capital expenditure to provide essential services to support industrial land use
- Land dedicated to accommodate downstream processing of mining, heavy and noxious industry, power station and key infrastructure
- Potential location of stockyards

#### Airport Considerations

- Planned airport upgrades currently underway
- Airport precinct masterplan sets aside land to accommodate industrial, bulky goods and transport and logistics uses
- Opportunity to achieve greater alignment between Port and Airport operations

### Where could logistics based transport industry be located?

#### Other Considerations

- Preferred location of future logistics based transport industry
- Preferred location of stockyards



### Legend

- Key Roads
- High Amenity Residential Growth Opportunity - subject to constraints (inundation, earthworks etc.)
- Development Investigation Area – (subject to addressing constraints)
- Recreation Focus
- Community Focus
- Tourism Focus
- Current Shopping Precinct
- Potential Future Location of Shopping Precinct
- Erosion Hazard Line (CHMAP)

1	Athol Street (potential ~700 residential lots)	7	Styles Road Southern Development Investigation Area
2	The Stables Precinct	8	McGregor Street Regional Recreation Precinct
3	Telstra Tower Site	9	Colin Matheson District Oval
4	Former Recreation Club / Detention Centre Development Area	10	Cemetery Beach *
5	Pretty Pool Stage 3a Development Investigation Area	11	Cooke Point Beach *
6	Former WWTP Site Development Investigation Area	12	Tkalka Boorda Redevelopment

\* Provides important nesting habitat for flatback turtles

### Where could future housing be located?

#### Residential Considerations

- Future residential growth areas are substantially constrained by coastal inundation
- Existing residential land fronting the coastline is at risk from coastal erosion
- Structure Plans are required to progress:
  - Athol Street Development Area
  - Pretty Pool Stage 3a
  - The Stables Precinct
  - Former Wastewater Treatment Plant Site

#### Community Infrastructure Considerations

- Coastal infrastructure prone to coastal and extreme weather events
- Potential future location of high school and primary school (subject to school intake requirements)
- Staged delivery of McGregor Street Precinct to provide regional sporting facilities
- Redevelopment of Tkalka Boorda

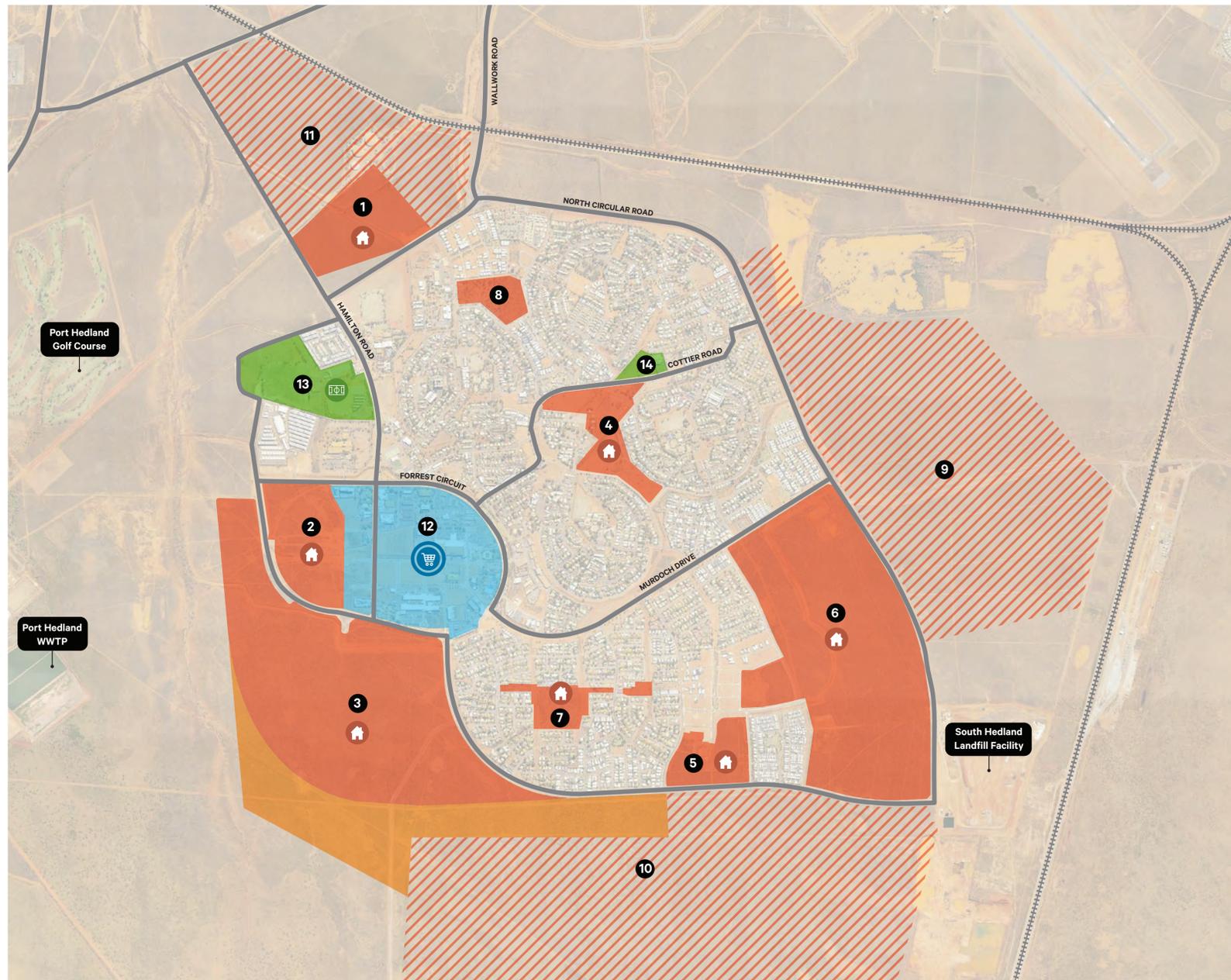
#### Environmental Considerations

- Cemetery Beach and Cooke Point Beach are turtle nesting areas
- Recent modelling has been completed for coastal storm surge and erosion impacts which will require a planned response
- Future expansion of Port operations is a long term consideration

### Where could any future shops be located?

#### Commercial/Retail Considerations

- Location of future retail and commercial uses to service the Port Hedland community



### Legend

- Key Roads
- Rail Corridor
- Residential "Development Ready" Land
- Medium - Long Term Land Bank
- Recreation Focus
- Development Investigation Area (subject to addressing constraints)
- Core Focus for Retail and Commercial Uses

1	Hamilton Road Development Area	9	Long Term Development Investigation Area (Eastern Gateway)
2	City Centre Development Area	10	Long Term Development Investigation Area (Southern Gateway)
3	Western Edge Development Area	11	Long Term Development Investigation Area (Northern Gateway)
4	Trumpet Way Structure Plan	12	City Centre
5	Osprey Village Estate	13	South Hedland Integrated Sports Complex Regional Precinct
6	Osprey Rural Development Area	14	JD Hardie Youth Zone Upgrades
7	Koombana Development Area		
8	Former Pundulmurra Village Development Area		

### Where could future housing be located?

#### Residential Considerations

- South Hedland contains serviced 'Development Ready' land
- Relocation of South Hedland landfill facility required to facilitate Eastern Gateway land release

### Where could a community camp be located?

#### Community Infrastructure Considerations

- Staged delivery of the South Hedland Integrated Sporting Complex to provide regional sporting facilities
- Staged delivery of youth infrastructure and services at the JD Hardie Centre
- Focus on improving provision of parks and open space in future development
- Future high school and primary school provision as required to meet student intake requirements

#### Environmental Considerations

- South Hedland Landfill and associated buffer
- Management of bushfire risk in relation to future growth areas

#### Commercial/Retail Considerations

- South Hedland to provide City Centre commercial and retail services to service the wider Hedland community
- Currently substantial vacant tenancies – anecdotally rents are considered high

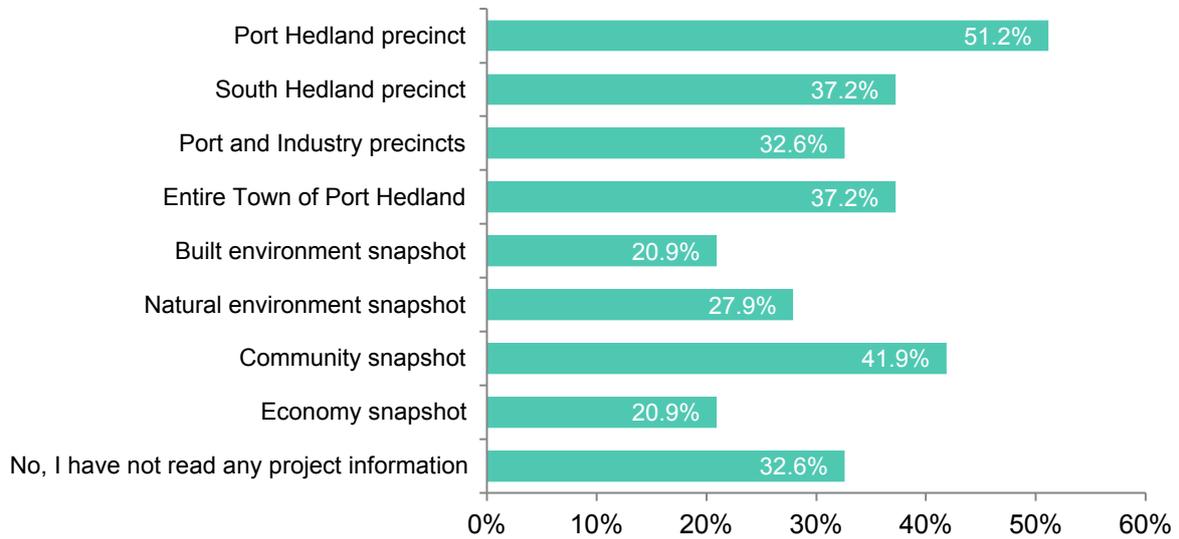
## **Appendix E – Online community survey demographic results**



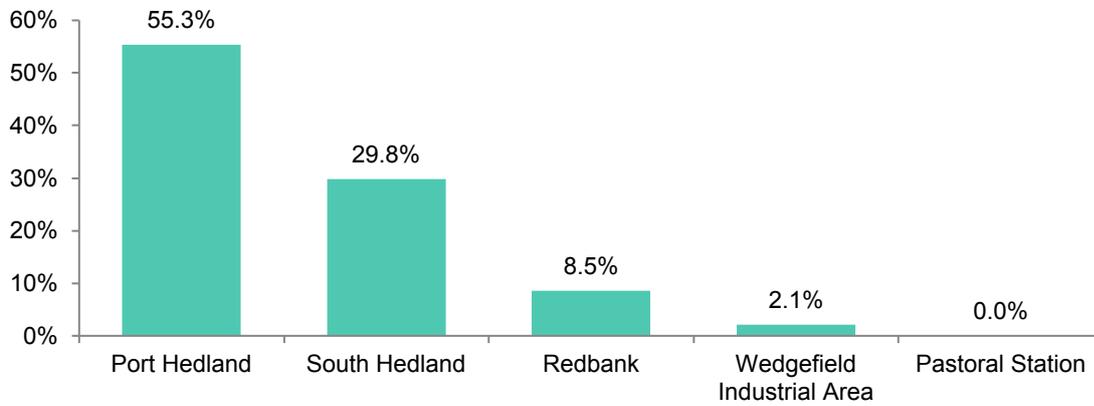
# Shaping Hedland's Future

## Online community survey demographic results

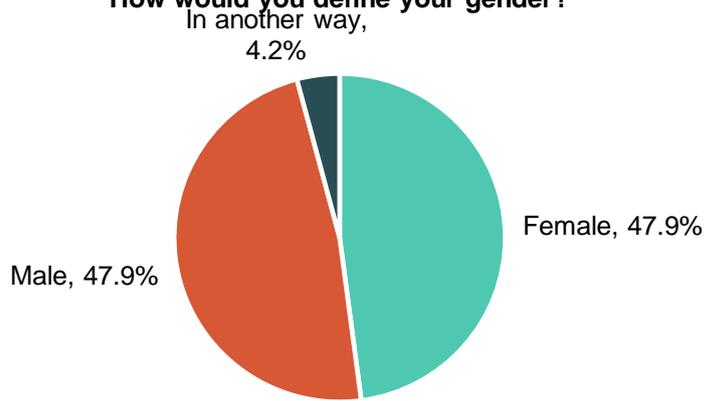
Please let us know if you have read any of the following information sheets.



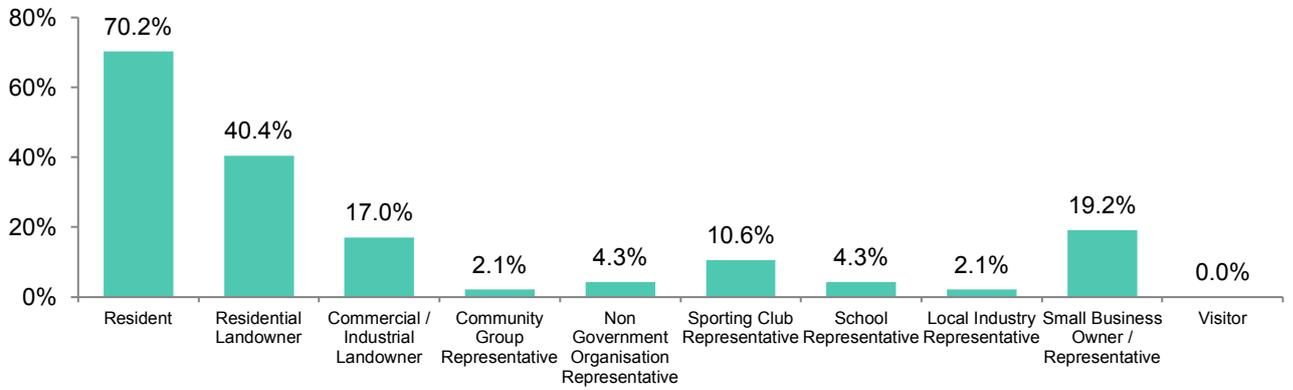
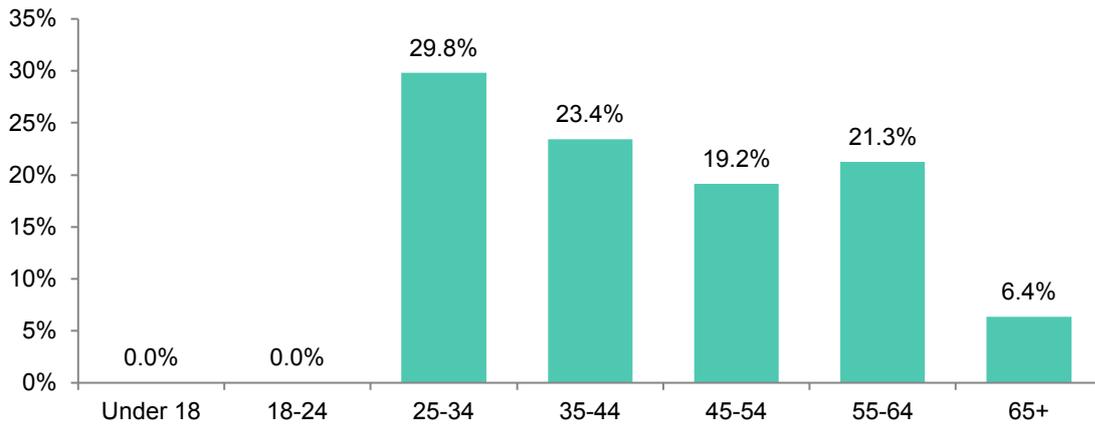
Do you live in:



**How would you define your gender?**



**How old are you:**



## Shaping Hedland's Future

Community and stakeholder engagement outcomes  
report: Local Planning Strategy review and preparation  
of a new Local Planning Scheme

March 2020



Town of  
**Port Hedland**

# Appendix B

## Socio-Economic Profile Details

## APPENDIX : SOCIO-ECONOMIC PROFILE DETAILS

### POPULATION AND DEMOGRAPHICS

**Table A. 1. Age Breakdown, Port Hedland, 2011 and 2016**

Age	2011	2016	Change
0 to 4	8.3%	9.5%	1.2%
5 to 9	7.0%	8.5%	1.5%
10 to 14	5.9%	5.7%	-0.2%
15 to 19	5.5%	4.7%	-0.8%
20 to 24	8.6%	6.2%	-2.4%
25 to 29	11.6%	11.0%	-0.6%
30 to 34	9.9%	11.6%	1.7%
35 to 39	9.7%	9.1%	-0.6%
40 to 44	7.9%	7.6%	-0.4%
45 to 49	7.7%	7.2%	-0.5%
50 to 54	7.2%	6.9%	-0.3%
55 to 59	5.1%	5.4%	0.3%
60 to 64	3.0%	3.1%	0.1%
65 to 69	1.2%	1.7%	0.6%
70 to 74	0.7%	0.8%	0.0%
75 to 79	0.3%	0.5%	0.2%
80 to 84	0.2%	0.3%	0.0%
85 and over	0.2%	0.2%	0.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	-
<b>Avg. Age</b>	<b>31.4</b>	<b>31.3</b>	-

Source: Profile.ID (2016a)

**Table A. 2. Indigenous Population, Port Hedland, 2011 and 2016**

Year	Indigenous Population (No.)	Proportion of Total Population (%)
2011	2,224	14.2%
2016	2,416	16.0%
Change (%)	8.6%	1.8%

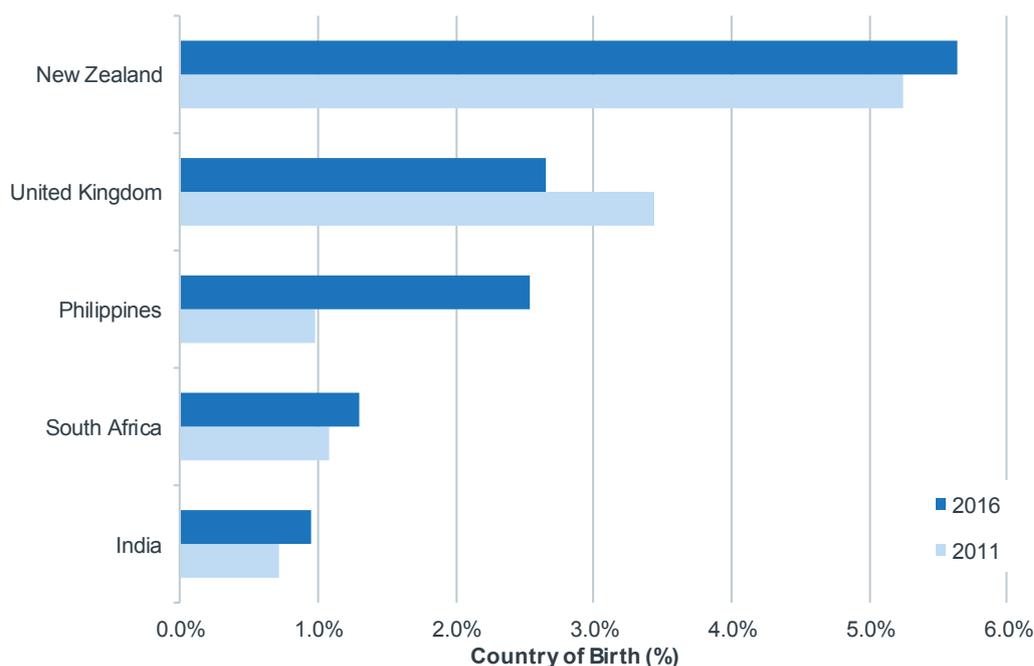
Source: ABS (2016b).

**Table A. 3. Birthplace, Port Hedland, 2011 and 2016**

Birthplace	2011	2016
Overseas	17.5%	20.4%
Australia	61.5%	63.2%
Not Stated	21.0%	16.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016.d).

**Figure A. 1. Top 5 Birth Countries, Excluding Australia, Port Hedland, 2011 and 2016**



Source: Profile.ID (2016d).

**Table A. 4. Languages Spoken at Home, Port Hedland, 2011 and 2016**

Language	2011	2016
English	69.4%	70.1%
Languages other than English	10.1%	14.3%
Not Stated	20.5%	15.6%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016e)

**Table A. 5. Top 5 Languages Spoken at Home, Excluding English, Port Hedland, 2016**

Language	2011	2016
Australian Indigenous Languages	18.2%	17.2%
Filipino/Tagalog	9.2%	16.7%
Malay	19.0%	13.0%
Afrikaans	6.0%	5.1%
Indonesian	4.5%	4.6%
Other	43.1%	43.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016e)

**Table A. 6. Religion, Port Hedland, 2011 and 2016**

Religious Affiliation	2011	2016
Religious	67.3%	59.1%
Non-Religious	32.7%	40.9%
Not Stated	23.6%	17.2%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016f).

**Table A. 7. Top 5 Religious Affiliations, Port Hedland, 2016**

Religion	%
Western (Roman) Catholic	20.7%
Anglican	9.3%
Other Christian Religions	3.2%
Islam	3.2%
Uniting Church	1.9%
Other	61.6%
<b>Total</b>	<b>100.0%</b>

Source: Profile.ID (2016f).

**Table A. 8. Year 12 Completions, Port Hedland, 2011 and 2016**

Year 12 Completions	2011	2016
Proportion	36.3%	41.4%
Number	4,294	4,576

Source: Profile.ID (2016g).

**Table A. 9. Highest Qualification Level, Port Hedland, 2011 and 2016**

Qualification	2011	2016
Bachelor or Higher Degree	10.9%	12.0%
Advanced Diploma or Diploma	6.2%	7.7%
Vocational	24.3%	27.0%
No Qualification	33.9%	34.0%
Not Stated	24.7%	19.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016h).

**Table 5.2. Health Outcomes, Port Hedland, 2019**

Health Category	Rate per 100 Population
Fair or Poor Self-Assessed Health (2014-15)	14.0
Type 2 Diabetes (2014-15)	4.7
High Cholesterol (2011-12)	32.8
Mental and Behavioral Problems (2014-15)	19.9
Psychological Distress (2014-15)	11.0
Suicides (2011-15)	0.0
Premature Deaths (2011-15)	0.4

Notes: The rate per 100 population for suicide between 2011 and 2015 was 0.02.

Source: PHIDU (2019).

## DWELLINGS AND HOUSING DEMAND

**Table A. 10. Household/ Family Composition, Port Hedland, 2011 and 2016**

Household/ Family Type	2011	2016
Couples with Children	26.8%	28.2%
Couples Without Children	19.7%	21.2%
One Parent Families	5.9%	6.5%
Other Families	1.3%	0.9%
Group Household	3.9%	2.8%

Household/ Family Type	2011	2016
Lone Person	14.3%	17.6%
Visitor Only Households	15.2%	11.8%
Other Not Classifiable	12.9%	11.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016i)

**Table A. 11. Historical and Projected Households, Port Hedland, 2016 to 2041**

Households	2016	2021	2026	2031	2036	2041	Avg. Ann. Growth
Size (Persons Per Household)	2.69	2.64	2.67	2.73	2.76	2.77	0.1%
Number	5,207	5,148	5,537	6,570	7,844	9,299	2.3%

Notes: Household size is represented as an average estimate of persons per households.

Source: Profile.ID (2016j)

**Table A. 12. Historical and Projected Dwellings, Port Hedland, 2016 to 2041**

Dwellings	2016	2021	2026	2031	2036	2041	Avg. Ann. Growth
Number	7,667	7,715	8,080	9,276	10,725	12,305	1.9%
Occupancy Rate	67.9%	66.7%	68.5%	70.8%	73.1%	75.6%	0.4%

Source: Profile.ID (2016j).

**Table A. 13. Dwelling Structure, Port Hedland, 2011 and 2016**

Dwelling Structure	2011	2016
Separate house	62.9%	68.8%
Medium density	22.3%	21.8%
High density	2.3%	3.2%
Caravans, cabin, houseboat	8.7%	4.5%
Other	2.9%	0.9%
Dwelling Structure	0.9%	0.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Notes: High density dwellings consist of flats, units or apartments. Medium density dwellings consist of semi-detached, row or terrace houses, townhouses, etc.

Source: Profile.ID (2016k)

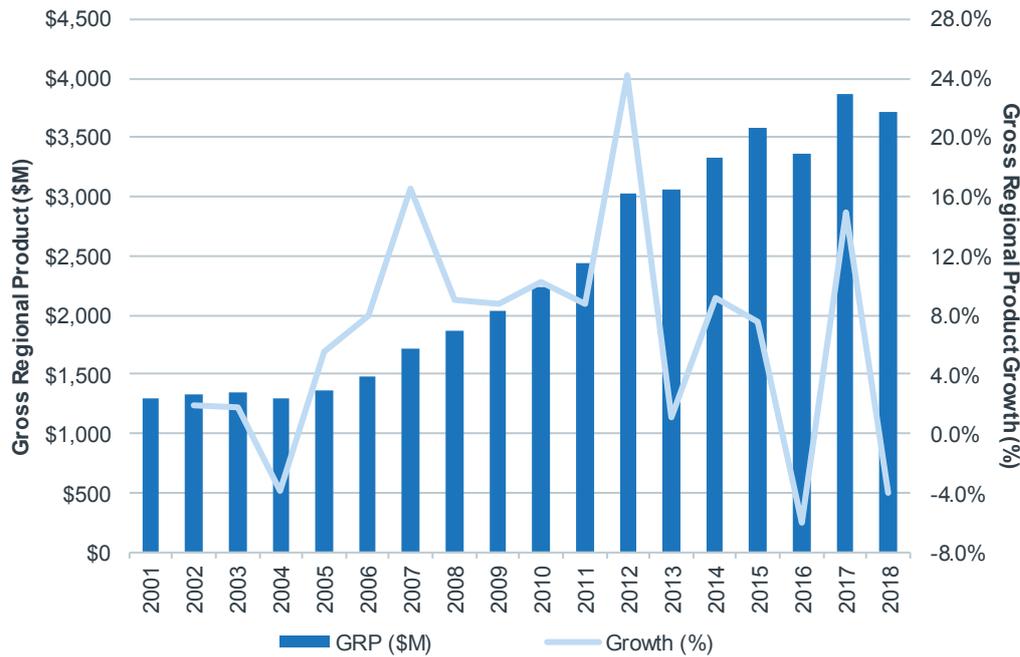
**Table A. 14. Median House Value & Rent, Port Hedland, 2014 and 2018**

Median House Value & Rent (\$)	2014	2018	Avg. Ann. Growth
<b>Value</b>			
House	\$842,126	\$251,458	-26.1%
Unit	\$711,414	\$164,570	-30.6%
<b>Rents</b>			
House	\$1250	\$398	-24.9%
Unit	\$800	\$310	-21.1%

Source: Profile.ID (2016m)

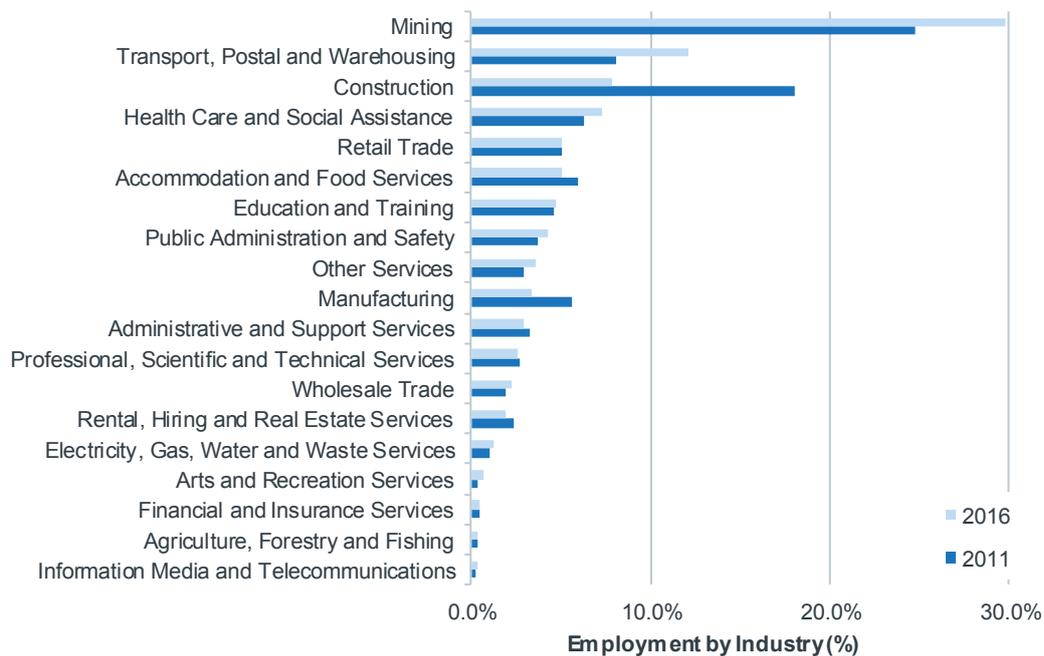
## ECONOMY

**Figure A. 2. Gross Regional Product, Port Hedland, 2001 to 2018**



Source: Economy.ID (2018a)

**Figure A. 3. Employment by Industry (%), Port Hedland, 2011 and 2016, Place of Work**



Source: Economy.ID (2018c).

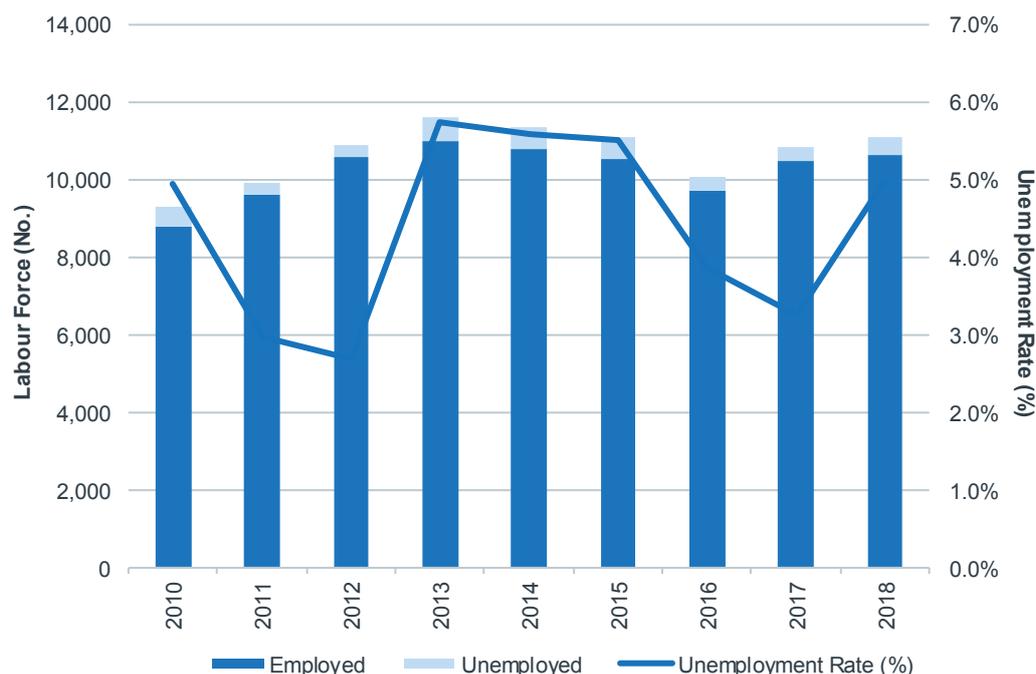
**Table A. 15. Employment by Occupation (%), Port Hedland, 2011 and 2016, Place of Work**

Occupation	2011	2016
Technicians and Trades Workers	26.4%	26.9%
Machinery Operators and Drivers	15.2%	17.5%
Professionals	13.7%	13.5%

Occupation	2011	2016
Labourers	12.7%	10.4%
Clerical and Administrative Workers	11.7%	9.3%
Managers	9.0%	8.5%
Community and Personal Service Workers	5.6%	7.0%
Sales Workers	3.7%	4.8%
Inadequately described or not stated	1.9%	2.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Economy.ID (2018d)

Figure A. 4. Employment & Unemployment, Port Hedland, 2010 to 2018



Source: Economy.ID (2018e).

Table A. 16. Retail Centres Port Hedland

Retail Centre	Nature	Location	Size (sqm)	Number of Shops
South Hedland Square	Convenience and shopping centre anchored by large retailers Coles and Kmart.	9-31 Throssell Rd, South Hedland WA 6722	16,800	45
Port Hedland Boulevard	Shopping centre with major retailers Woolworths and Harvey Norman.	50 Anderson Street, Port Hedland WA 6721	6,247	18

Source: Town of Port Hedland (2019). Real Commercial (2019).

## TOURISM

**Table A. 17. Visitation by Age, Port Hedland, 2018**

Age Group (Years)	Domestic	International
15-19	6.7%	1.0%
20-24	1.8%	12.3%
25-29	14.2%	17.2%
30-34	24.4%	9.7%
35-39	8.1%	10.5%
40-44	11.2%	2.5%
45-49	7.6%	12.9%
50-54	9.6%	6.3%
55+	16.3%	27.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Tourism Research Australia (2019a,b).

**Table A. 18. Visitation by Gender, Port Hedland, 2018**

Source Market	Gender	Port Hedland
Domestic Day	Male	55.8%
	Female	44.2%
Domestic Overnight	Male	90.1%
	Female	9.9%
International	Male	61.5%
	Female	38.5%

Source: Tourism Research Australia (2019a,b).

**Table A. 19. Visitation by Purpose of Visit, Port Hedland, 2008 to 2018**

Purpose	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Avg. Ann. Growth
Holiday	39.8%	23.2%	31.0%	28.0%	33.0%	28.5%	16.7%	19.7%	9.7%	24.3%	27.9%	6.9%
Visiting friends and relatives	10.3%	12.1%	9.8%	10.3%	6.3%	6.9%	9.4%	13.9%	9.6%	9.0%	9.6%	9.9%
Business	48.1%	35.3%	56.5%	50.6%	56.6%	61.2%	68.7%	63.7%	77.9%	57.9%	51.6%	11.5%
Other reason	1.7%	29.2%	1.7%	11.1%	3.4%	3.4%	2.9%	1.1%	1.1%	8.6%	9.8%	31.8%
No other reason	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
In transit	0.0%	0.1%	1.0%	0.0%	0.6%	0.0%	2.2%	1.6%	1.7%	0.2%	1.1%	53.0%
<b>Total</b>	<b>100.0%</b>	-										

Source: Tourism Research Australia (2019a,b).

**Table A. 20. Visitation by Activity, 2008 to 2018<sup>(a)(b)(c)</sup>**

Activity	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Avg. Ann. Growth
<b>Domestic</b>												
Outdoor/nature	26.4%	25.5%	10.4%	13.3%	9.9%	12.6%	6.6%	2.0%	4.9%	3.7%	15.8%	6.0%
Active outdoor/sports	3.2%	8.2%	6.4%	7.9%	9.6%	6.4%	12.0%	9.8%	6.9%	9.8%	20.3%	34.4%
Arts/heritage	10.1%	2.8%	4.0%	5.0%	0.4%	1.9%	0.0%	3.4%	3.6%	1.5%	3.0%	-1.3%
Local attractions/tourist activities	7.0%	0.7%	1.4%	1.7%	0.0%	3.4%	6.4%	3.4%	1.7%	2.5%	3.6%	4.3%
Social activities	56.0%	55.5%	42.5%	48.8%	35.9%	48.1%	42.8%	70.5%	61.9%	40.3%	37.4%	7.2%
Other activities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%
<b>International</b>												
Outdoor/nature	92.1%	88.1%	82.9%	78.7%	78.0%	79.7%	72.4%	75.8%	77.0%	79.7%	76.1%	0.5%
Active outdoor/sports	76.3%	72.8%	62.7%	54.2%	65.2%	64.2%	48.0%	54.1%	52.5%	48.9%	64.6%	0.8%
Arts/heritage	77.5%	67.9%	70.1%	55.9%	55.7%	59.8%	54.4%	53.4%	69.9%	59.3%	53.2%	-1.4%
Local attractions/tourist activities	68.5%	46.1%	46.9%	46.2%	48.1%	42.7%	29.6%	26.7%	41.7%	44.5%	42.1%	-2.4%
Social activities	80.1%	81.9%	69.9%	63.5%	68.3%	76.0%	67.5%	63.1%	76.0%	75.8%	78.6%	2.2%
Other activities	94.9%	97.0%	94.0%	95.5%	98.7%	94.7%	93.4%	91.1%	98.3%	93.7%	98.7%	2.8%

Notes: (a) Domestic visitation is based off stopover activity within Port Hedland, whilst international activity is based on any activities undertaken on their trip (could include other areas). (b) Represented as a proportion of total visitors each year for each catchment/SA2. (c) May not sum up to 100%, as visitors can pick more than one activity during their trip.

Source: Tourism Research Australia (2019a,b).

**Table A. 21. Visitor Expenditure, Port Hedland, 2018**

LGA	International	Domestic Overnight	Domestic Day
Port Hedland	\$8.56	\$147.30	np

Source: Tourism Research Australia (2019c).

**Table A. 22. Accommodation Profile, Port Hedland, 2008 to 2018**

Accommodation	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Hotels and similar accommodation	46.6%	23.5%	28.3%	31.6%	25.8%	31.5%	16.9%	41.0%	29.5%	22.3%	17.9%
Other commercial accommodation	25.7%	29.3%	28.3%	15.6%	29.2%	11.6%	20.7%	8.3%	14.3%	14.9%	13.2%
Own property	0.0%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Private Accommodation	27.7%	38.8%	26.5%	51.8%	44.3%	56.7%	62.4%	25.9%	30.0%	23.3%	26.9%
Other Accommodation	0.0%	8.4%	11.4%	1.0%	0.7%	0.2%	0.0%	24.8%	26.2%	39.6%	41.9%
<b>Total</b>	<b>100.0%</b>										

Notes: Represented as a proportion of total visitors.

Source: Tourism Research Australia (2019a, b).

**Table A. 23. Domestic Average Length of Stay (Nights), Port Hedland, 2008 to 2018**

Area	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average
Port Hedland	5	4	7	5	7	12	7	6	6	7	6	7
Karratha	7	7	8	9	7	7	7	7	7	7	7	7
Regional WA	5	4	5	5	5	5	5	5	5	5	5	5

Note: Length of stay may fluctuate greatly between years due to smaller size of region and small sample size during data collection.

Source: Tourism Research Australia (2019a, b).

**Table A. 24. International Average Length of Stay (Nights), Port Hedland, 2008 to 2018**

Area	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average
Port Hedland	6	26	12	14	28	32	23	14	16	13	5	17
Karratha	19	20	27	30	44	36	36	29	25	26	22	29
Regional WA	21	21	22	23	29	26	26	22	20	19	16	22

Note: Length of stay may fluctuate greatly between years due to smaller size of region and small sample size during data collection.

Source: Tourism Research Australia (2019a, b).

**Table A. 25. Tourism Products, Port Hedland**

Tourism Product Type	Name	Description
Attractions/ Recreation/ Cultural Locations	Cape Keraudren Nature Reserve	This coastal reserve is located 179km north of Port Hedland, offering fishing, crabbing and camping activities.
	Pretty Pool	Located just off the coast of Port Hedland, this beach offers a perfect place to relax and swim, with a picnic area and BBQ facilities nearby.
	Cemetery Beach Park	Cemetery Beach Park overlooks the Indian Ocean just off the coast of Port Hedland and is a popular beach for turtle nesting. The park features a playground, toilets and a large open grassy space.
	Port Hedland Courthouse Gallery	The Courthouse Gallery is situated in the heart of Port Hedland, offering exciting exhibitions, inspiring workshops and the ultimate retail experience.
	Dalgety House Museum	Dalgety House Museum provides an opportunity to gain an insight into the impact that white settlement had on the Kariyarra Aboriginal people of the Pilbara. Exhibits include an extensive collection of artefacts & documentation and photographs.
	Koombana Lookout Port Hedland	Located in Port Hedland, this lookout provides views of the ocean, wildlife and Port activity.
	Redbank Bridge Lookout	This lookout is a viewpoint in Port Hedland for the Redbank pink-tinted mountains of salt and cargo trains.
	Port Hedland Boulevard	Located in Port Hedland, this fully enclosed and air-conditioned centre is anchored by Woolworths, Harvey Norman and 16 other specialty stores.
	Cooke Point Viewing Platform	This viewing platform is located on the coastline of Port Hedland, offering oceanic views, particularly popular at sunset.
	Cultural & Heritage Trail	Offers a self or guided tour around the West End to historic sites and buildings, which tell a story of the early Hedland days and the characters which helped build the town.
Karijini National Park	Karijini National Park offers spectacular rugged scenery, ancient geological formations, a variety of arid-land ecosystems and a range of recreational experiences. It can be entered from Port Hedland.	
Events	Port Hedland Cup	The Port Hedland Cup has taken place for over 100 years, involving internationally renowned trainers, champion jockeys and world-class racehorses from all over Australia and internationally.
	Pilbara Music Festival	This music festival showcases local musical performance and drama performance talent from both Port Hedland and Karratha.
Commercial Facilities	Spoilbank Marina Waterfront	This Marina is still in the development phase, planned to accommodate 100-150 boat pens, a two-lane boat ramp, plenty of vehicle parking, opportunities for commercial operations, food and beverage sites and a proposed cultural and community centre.
	Wanangkura Stadium	This stadium is Port Hedland's premier sporting facility for social sports, team programs, group fitness and events.
	Don Rhodes Mining Museum	The Don Rhodes Mining and Transport Museum is a public park in Port Hedland, with an open-air display of retired mining machinery and railway rolling stock.
	Spinifex Hill Studios	This studio is the newest art centre in the Pilbara, supporting over 100 artists from eight language groups.

Source: Port Tourist Park (2019).

# Appendix C

## Comparative Profile Details

## APPENDIX COMPARATIVE PROFILE DETAILS

### POPULATION AND DEMOGRAPHICS

**Table B. 1. Indigenous Population, Comparison Regions, 2016**

Area	Indigenous Population (%)
<b>Port Hedland</b>	
Indigenous	19.1%
Non-Indigenous	80.9%
<b>Karratha</b>	
Indigenous	14.5%
Non-Indigenous	85.5%
<b>Regional WA</b>	
Indigenous	8.1%
Non-Indigenous	91.9%

Source: ABS (2017a).

**Table B. 2. Population by Age, Comparison Regions, 2018**

Age Group (Years)	Port Hedland	Karratha	Regional WA
0-4	10.2%	9.6%	6.6%
5-9	9.0%	9.0%	6.9%
10-14	6.0%	7.2%	6.7%
15-19	4.8%	5.4%	5.9%
20-24	4.9%	4.9%	4.9%
25-29	9.6%	8.7%	6.0%
30-34	11.8%	11.6%	6.9%
35-39	9.2%	10.0%	6.6%
40-44	7.3%	8.5%	6.4%
45-49	7.3%	7.7%	7.1%
50-54	6.7%	6.1%	6.7%
55-59	5.7%	5.1%	6.9%
60-64	3.5%	2.9%	6.2%
65-69	1.9%	1.8%	5.4%
70-74	1.0%	0.8%	4.4%
75-79	0.6%	0.5%	3.0%
80-84	0.2%	0.2%	1.9%
85 and over	0.3%	0.2%	1.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: ABS (2018d).

**Table B. 3. Population by Sex, Comparison Regions, 2018**

Area	Males	Females
Port Hedland	52.7%	47.3%
Karratha	55.1%	44.9%
Regional WA	50.7%	49.3%

Source: ABS (2018d).

**Table B. 4. Year 12 Completions, Comparison Regions, 2016**

Area	Completed Year 12	Have not Completed Year 12	Total
Port Hedland	50.8%	49.2%	100.0%
Karratha	53.2%	46.8%	100.0%
Regional WA	44.3%	55.7%	100.0%

Source: ABS (2017a).

**Table B. 5. Top Five Countries of Birth, Comparison Regions, 2016**

Country of Birth	Port Hedland	Karratha	Regional WA
Australia	75.5%	76.5%	78.9%
New Zealand	6.7%	5.8%	3.8%
Maritime South-East Asia	4.3%	3.6%	1.8%
United Kingdom, Channel Islands and Isle of Man	3.2%	4.1%	7.8%
Southern and East Africa	2.9%	2.2%	1.9%
Southern Asia	1.9%	2.0%	0.9%
Other	5.5%	5.9%	4.9%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: ABS (2017a).

**Table B. 6. Languages Spoken at Home, Comparison Regions, 2016**

Languages Spoken at Home	Port Hedland	Karratha	Regional WA
English	83.2%	86.0%	91.4%
Malay	2.0%	0.1%	0.2%
Tagalog	1.6%	1.5%	0.6%
Filipino	1.0%	1.1%	0.5%
Nyangumarta	1.0%	0.0%	0.0%

Source: ABS (2017a).

**Table B. 7. Religious Affiliation, Comparison Regions, 2016**

Religious Affiliation	Port Hedland	Karratha	Regional WA
Secular Beliefs, Other Spiritual Beliefs and No Religious Affiliation	41.3%	42.1%	39.0%
Christianity	51.3%	53.0%	58.1%
Islam	3.9%	0.9%	0.6%
Buddhism	1.6%	1.9%	1.1%
Hinduism	1.1%	1.4%	0.4%
Other	0.9%	0.7%	0.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: ABS (2017a).

**Table B. 8. Non School Qualifications, Comparison Regions, 2016**

Area	Postgraduate	Graduate Diploma & Certificate	Bachelor Degree	Advanced Diploma and Diploma	Certificate	Not Applicable <sup>(a)</sup>	Total
Port Hedland	1.7%	1.6%	9.8%	8.2%	28.8%	49.8%	<b>100.0%</b>
Karratha	2.1%	1.3%	10.9%	8.1%	28.2%	49.5%	<b>100.0%</b>
Regional WA	1.5%	1.4%	9.4%	7.9%	25.6%	54.2%	<b>100.0%</b>

Notes: (a) Those included in this category are persons who have a qualification that is out of scope of this classification, persons with no qualifications, persons still studying for the first qualification and persons aged under 15 years.

Source: ABS (2017a).

**Table B. 9. Health Outcomes (Rate per 100 Population), Comparison Regions, 2019**

Health Category	Port Hedland	Karratha	Regional WA
Fair or Poor Self-Assessed Health (2014-15)	14.0	13.3	14.6
Type 2 Diabetes (2014-15)	4.7	4.6	4.7
High Cholesterol (2011-12)	32.8	34.0	35.6
Mental and Behavioral Problems (2014-15)	19.9	16.0	16.5
Psychological Distress (2014-15)	11.0	10.4	9.8
Suicides (2011-15)	0.0	0.0	0.0
Premature Deaths (2011-15)	0.4	0.3	0.1

Note: The rate per 100 population for suicide in 2011 to 2015 was 0.02 for Port Hedland, 0.01 for Karratha and 0.02 for Regional WA.

Source: PHIDU (2019)

## DWELLINGS AND HOUSING DEMAND

**Table B. 10. Dwelling Structure, Comparison Regions, 2016**

Area	Separate House	Semi-detached, row or terrace house, townhouse, flat or apartment	Cabin, houseboat, caravan	Improvised home, tent, sleepers out	House or flat attached to a shop, office, etc.
Port Hedland	69.4%	25.2%	4.5%	0.8%	0.1%
Karratha	73.1%	21.3%	4.8%	0.6%	0.1%
Regional WA	82.9%	11.4%	4.5%	0.9%	0.3%

Note: Semi-detached and flat or apartment categories have been summed together due to coding discrepancies between 2011 and 2016.  
Source: ABS (2017c).

**Table B. 11. Household Composition, Comparison Regions, 2016**

Area	One family household	Two family household	Three or more family household	Lone person household	Group household	Visitors only	Other non-classifiable	Total
Port Hedland	55.6%	1.2%	0.1%	17.6%	2.8%	11.0%	11.8%	<b>100.0%</b>
Karratha	61.0%	1.2%	0.1%	16.3%	2.9%	10.3%	8.3%	<b>100.0%</b>
Regional WA	61.2%	1.1%	0.1%	22.2%	2.5%	6.5%	6.4%	<b>100.0%</b>

Source: ABS (2017a).

**Table B. 12. Family Composition, Comparison Regions, 2016**

Area	Couple family with children	Couple family with no children	One parent family with children	One parent family with no children	Other family	Total
Port Hedland	41.6%	44.8%	8.0%	4.0%	1.6%	<b>100.0%</b>
Karratha	46.1%	41.5%	7.5%	3.6%	1.4%	<b>100.0%</b>
Regional WA	30.5%	53.5%	8.9%	5.9%	1.2%	<b>100.0%</b>

Source: ABS (2017a)

**Table B. 13. Mortgage Stress (%), Comparison Regions, 2016**

Area	Households in Mortgage Stress (%)
Port Hedland	4.9%
Karratha	3.7%
Regional WA	10.2%

Notes: Mortgage and rental stress is defined as low income households (bottom 40% of income distribution) who spend more than 30% of income on mortgage (or rent) repayments, as a proportion of mortgaged (or rented) private dwellings  
Source: PHIDU (2017).

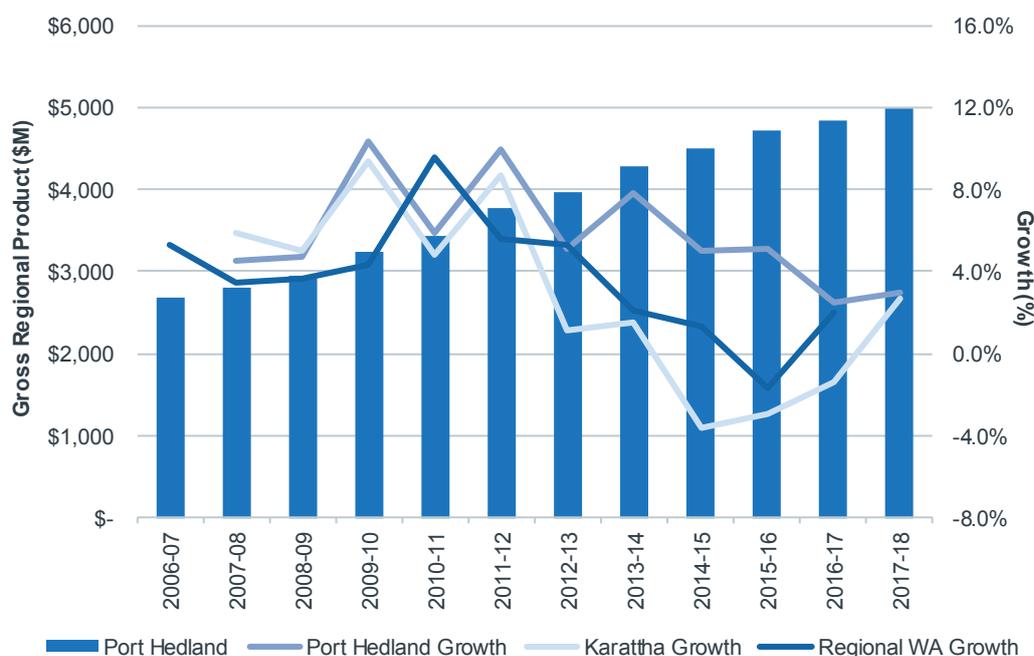
**Table B. 14. Rental Stress, Comparison Regions, 2016**

Area	Households in Rental Stress (%)
Port Hedland	5.9%
Karratha	6.3%
Regional WA	23.5%

Notes: Mortgage and rental stress is defined as low income households (bottom 40% of income distribution) who spend more than 30% of income on mortgage (or rent) repayments, as a proportion of mortgaged (or rented) private dwellings  
Source: PHIDU (2017).

## ECONOMY

**Figure B. 1. Gross Regional Product, Comparison Regions, 2006-07 to 2017-18**



Source: AEC (unpublished a).

**Table B. 15. Employment by Industry (PoW), Comparison Regions, 2017-18**

Industry	Port Hedland	Karratha	Regional WA
Mining	36.9%	29.2%	18.2%
Transport, postal and warehousing	11.8%	5.5%	4.2%
Construction	8.8%	9.1%	10.7%
Health care and social assistance	7.7%	3.8%	9.3%
Retail trade	5.4%	4.3%	8.5%
Accommodation and food services	5.2%	4.0%	6.8%
Education and training	4.9%	4.7%	8.1%
Public administration and safety	4.4%	4.4%	4.9%
Administrative and support services	3.8%	4.4%	3.2%
Other services	3.8%	2.5%	3.5%
Manufacturing	3.5%	2.5%	5.2%
Professional, scientific and technical services	3.2%	3.1%	3.5%
Wholesale trade	2.0%	1.3%	1.7%
Rental, hiring and real estate services	1.9%	1.8%	1.4%
Electricity, gas, water and waste services	1.5%	1.8%	1.3%
Arts and recreation services	0.9%	0.6%	1.1%
Financial and insurance services	0.4%	0.3%	1.0%
Information media and telecommunications	0.3%	0.3%	0.5%
Agriculture, forestry and fishing	0.2%	0.1%	7.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: ABS (2017a).

**Figure B. 2. Historical Unemployment Rate, Comparison Regions, 2006 to 2018**



Note: The unemployment rates above represent an average of the quarters in each year.  
 Source: Department of Jobs and Small Business (2019)

**Table B. 16. Employment by Occupation (PoW), Comparison Regions, 2016**

Occupation	Port Hedland	Karratha	Regional WA
Technicians and Trades Workers	28.4%	28.8%	16.5%
Machinery Operators and Drivers	18.1%	13.5%	7.7%
Professionals	13.3%	14.8%	20.9%
Labourers	11.1%	12.0%	9.8%
Clerical and Administrative Workers	9.1%	9.9%	13.5%
Managers	8.4%	9.0%	11.9%
Community and Personal Service Workers	6.9%	7.3%	10.7%
Sales Workers	4.7%	4.7%	9.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: AEC (2017a).

## TOURISM

**Table B. 17. Historical Visitation Growth, Comparison Regions, 2008 to 2018**

Area	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Domestic</b>										
Port Hedland	27.0%	-25.7%	18.2%	1.4%	-10.0%	45.2%	76.2%	5.6%	-19.7%	27.0%
Karratha	16.1%	17.7%	-23.0%	-5.6%	16.5%	71.8%	19.0%	-1.4%	-18.3%	16.1%
Regional WA	-6.4%	3.4%	6.7%	11.4%	0.8%	44.7%	0.6%	-1.4%	-7.1%	-6.4%
<b>International</b>										
Port Hedland	11.0%	-9.1%	1.7%	-4.1%	6.1%	33.4%	-14.2%	25.3%	-44.3%	52.6%
Karratha	-6.1%	9.6%	27.1%	-15.5%	-13.4%	-17.0%	37.6%	-18.4%	-5.0%	1.5%
Regional WA	-0.8%	8.2%	6.1%	-7.6%	6.0%	-0.3%	18.1%	8.7%	-12.2%	18.2%

Note: Visitation may fluctuate greatly between years due to the small size of region and small sample size during data collection.  
Source: Tourism Research Australia (2019a,b)

**Table B. 18. Projected Visitation, Comparison Regions, 2019 to 2027**

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Visitation</b>									
Port Hedland	161,583	167,186	172,803	178,431	184,068	189,779	195,566	201,427	207,363
Karratha	197,927	204,790	211,670	218,564	225,469	232,465	239,553	246,733	254,004
Regional WA	6,040,667	6,250,140	6,460,106	6,670,503	6,881,231	7,094,758	7,311,085	7,530,208	7,752,118
<b>Growth</b>									
All	-	3.5%	3.4%	3.3%	3.2%	3.1%	3.0%	3.0%	2.9%

Note: Visitation projections have been estimated using Tourism Research Australia visitor night projections for Regional WA. Visitor night statistics were collected for 2018, to which visitor night growth projections were applied. These visitor night projections were converted to visitor projections by assuming the average length of stay of visitors was held constant over the estimation period (2019 to 2027).  
Source: Tourism Research Australia (2019d).

**Table B. 19. Projected International Visitation, Comparison Regions, 2019 to 2027**

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Visitation</b>									
Port Hedland	4,288	4,482	4,674	4,877	5,086	5,302	5,527	5,760	6,003
Karratha	18,720	19,568	20,405	21,290	22,202	23,147	24,127	25,147	26,205
Regional WA	321,158	335,712	350,068	365,257	380,911	397,121	413,935	431,426	449,583
<b>Growth</b>									
Port Hedland	-	4.5%	4.3%	4.3%	4.3%	4.3%	4.2%	4.2%	4.2%
Karratha	-	4.5%	4.3%	4.3%	4.3%	4.3%	4.2%	4.2%	4.2%
Regional WA	-	4.5%	4.3%	4.3%	4.3%	4.3%	4.2%	4.2%	4.2%

Note: Visitation projections have been estimated using Tourism Research Australia visitor night projections for Regional WA. Visitor night statistics were collected for 2018, to which visitor night growth projections were applied. These visitor night projections were converted to visitor projections by assuming the average length of stay of visitors was held constant over the estimation period (2019 to 2027).  
Source: Tourism Research Australia (2019d).

**Table B. 20. Domestic Overnight Average Length of Stay, Comparison Regions, Average**

Area	Domestic Overnight	International
Port Hedland	7	17
Karratha	7	29
Regional WA	5	22

Note: Average length of stay may fluctuate greatly between years due to the small size of region and small sample size during data collection.  
Source: Tourism Research Australia (2019a,b).

**Table B. 21. Visitation by Age, Comparison Regions, 2018**

Age	Port Hedland	Karratha LGA	Regional WA
<b>Domestic</b>			
15-19	6.7%	0.0%	5.8%
20-24	1.8%	1.4%	2.9%
25-29	14.2%	4.7%	1.6%
30-34	24.4%	24.3%	19.4%
35-39	8.1%	6.3%	6.7%
40-44	11.2%	6.4%	5.7%
45-49	7.6%	16.3%	16.5%
50-54	9.6%	16.8%	20.0%
55+	16.3%	23.9%	21.4%
<b>International</b>			
15-19	1.0%	2.7%	2.2%
20-24	12.3%	5.6%	7.9%
25-29	17.2%	16.3%	13.9%
30-34	9.7%	17.5%	9.9%
35-39	10.5%	10.6%	7.7%
40-44	2.5%	4.4%	6.3%
45-49	12.9%	7.9%	7.5%
50-54	6.3%	8.6%	8.6%
55+	27.7%	26.5%	35.8%

Source: Tourism Research Australia (2019a,b).

**Table B. 22. Visitation by Gender, Comparison Regions, 2018**

Gender	Port Hedland	Karratha LGA	Regional WA
<b>Domestic</b>			
Male	78.5%	83.2%	55.8%
Female	21.5%	16.8%	44.2%
<b>International</b>			
Male	61.5%	63.5%	47.9%
Female	38.5%	36.5%	52.1%

Source: Tourism Research Australia (2019a,b).

**Table B. 23. Visitation by Purpose of Visit, Comparison Regions, 2018**

Purpose	Port Hedland	Karratha	Regional WA
Holiday	27.9%	39.5%	53.3%
Visiting friends and relatives	9.6%	8.9%	21.2%
Business	51.6%	41.0%	18.9%
Other reason	9.8%	10.0%	6.3%
No other reason	0.0%	0.0%	0.0%
In transit	1.1%	0.6%	0.3%

Source: Tourism Research Australia (2019a,b).

**Table B. 24. Visitation by Activity, 2018<sup>(a)(b)(c)</sup>**

Activity	Port Hedland	Karratha	Regional WA
<b>Domestic</b>			
Outdoor/nature	15.8%	23.8%	40.5%
Active outdoor/sports	20.3%	12.7%	25.8%
Arts/heritage	3.0%	8.4%	11.3%
Local attractions/tourist activities	3.6%	1.5%	15.0%
Social activities	37.4%	62.1%	74.6%
Other activities	0.0%	0.6%	1.1%
<b>International</b>			
Outdoor/nature	76.1%	73.0%	87.2%
Active outdoor/sports	64.6%	44.6%	44.4%
Arts/heritage	53.2%	42.2%	57.9%
Indigenous Culture Activities	42.1%	42.6%	22.3%
Local attractions/tourist activities	78.6%	54.4%	80.5%
Social activities	98.7%	99.0%	98.0%
Other activities	0.0%	0.0%	0.0%

Notes: (a) Domestic visitation is based off stopover activity within Port Hedland, whilst international activity is based on any activities undertaken on their trip (could include other areas). (b) Represented as a proportion of total visitors each year for each catchment/SA2. (c) May not sum up to 100%, as visitors can pick more than one activity during their trip.

Source: Tourism Research Australia (2019a,b).

**Table B. 25. Visitor Expenditure, Comparison Regions, 2018**

LGA	International	Domestic Overnight	Domestic Day
Port Hedland	\$8.56	\$147.30	np
Karratha	\$13.97	\$210.36	\$31.00

Source: Tourism Research Australia (2019c).

**Table B. 26. Visitor Accommodation, Comparison Regions, 2018**

Accommodation	Port Hedland	Karratha	Regional WA
Hotels and similar accommodation	17.9%	13.4%	35.1%
Other commercial accommodation	13.2%	16.2%	37.6%
Own property	0.0%	0.0%	6.5%
Other Private Accommodation	26.9%	38.0%	69.9%
Other Accommodation	41.9%	32.4%	16.5%

Notes: Represented as a proportion of total visitors.  
 Source: Tourism Research Australia (2019a, b).

# Appendix D

## Competitive Assessment

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# PORT HEDLAND SOCIO-ECONOMIC PROFILE & COMPETITIVE ASSESSMENT

ELEMENT  
SEPTEMBER 2019

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## DOCUMENT CONTROL

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Job ID: J001424  
 Job Name: Local Planning Strategy & Local Planning Scheme Review  
 Client: Element  
 Client Contact: Mike Davis  
 Project Manager: Darren Harrison  
 Email: [darren.harrison@aecgrouppltd.com](mailto:darren.harrison@aecgrouppltd.com)  
 Telephone: (07) 3831 0577  
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# EXECUTIVE SUMMARY

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## BACKGROUND

Town of Port Hedland Local Government Area (Port Hedland) covers an area of 10,587km<sup>2</sup> and is located in the north west of Western Australia, approximately 1,322 km north of Perth. The Port of Port Hedland is one of the largest bulk handling ports in the world and the largest in Australia. The local economy is dominated by mining and related supply chain activity, which contributes over 1.5% of state GSP. The local government area (LGA) experienced exceptional economic growth from 2009 to 2014 as the resources boom supported significant construction activity. However, now that the boom has entered into the operational phase, economic growth has stabilised. The shift in the national mining landscape and the resultant change in economic outcomes for the region suggest it is an opportune time to revisit existing planning documentation within the local government area, in terms of both economic development and associated land planning.

## PURPOSE OF REPORT

The purpose of this report is to update the data and context provided in Council's existing profiling documentation, to be analysed in terms of its implications for land use planning. This report constitutes the technical appendix supporting the background information and analysis report. In addition, the findings of the opportunity assessment will be used to inform consultation with Council and key local and regional stakeholders to explore future drivers for the economy, including expansion of current activities and opportunities for diversification.

## KEY FINDINGS

Key findings from the analysis following the background socio-economic analysis are summarised below:

- **Population:** Port Hedland's estimated resident population was 14,975 people in 2018. Historical population fluctuations trended in line with Karratha LGA (Karratha) (though displayed less volatility), where population changes were strongly tied to mining and construction industry activity. The local demographic structure (in terms of age and gender composition) reflect the strong presence of the mining and construction sectors in the economy, with high representations of young males, but is also relatively consistent with those of Karratha. Broader Regional Western Australia (Regional WA) reveals a more evenly distributed age and gender structure. By comparison with Karratha and Regional WA, Port Hedland records a higher proportion of persons born overseas and a lower level of Year 12 completion (and slightly higher level of certificate qualifications) again, likely reflecting the nature of work in the region.

Port Hedland's resident population is projected to increase by approximately 2.5% per annum (on average) over the next 20 years, with a projected increase to just over 27,000 by 2041. Population growth in the region is intrinsically tied to local economic outcomes. Future population growth expectations are supported by the anticipated rise in construction and mining activity in the local economy.

- **Dwellings and Household Demand:** Port Hedland recorded approximately 5,470 households as at the 2016 Census. Of these, families (couples with children) were the most prevalent household type (comprising 28.2% of all households). Household incomes in Port Hedland are reflective of the significant economy activity in the mining industry, with average household income reported at \$2,793 per week in 2016 (equating to \$145,236 per annum). Corresponding to the higher average household incomes in Port Hedland, housing stress is less problematic than for Regional WA. This is in line with Karratha. Rental stress, in particular, was considerably lower in 2016 in Port Hedland and Karratha compared to Regional WA. In line with population projections, the number of households in Port Hedland are expected to increase by 2.3% annually (on average) until 2041.

Port Hedland recorded approximately 7,667 dwellings in 2016. Whilst Port Hedland's dwelling supply is primarily comprised of separate houses, it has a more diverse dwelling supply than Karratha and broader Regional WA. Dwellings are expected to increase by 4,630 (1.9% annually on average) and occupancy rates by 0.4% annually (on average), to reach 75.6% in 2041.

- Economy:** Port Hedland recorded a Gross Regional Product (GRP) of approximately \$3.7 billion in 2018, contributing over 1.5% of state GSP. Between 2001 and 2018, the economy recorded average annual growth of approximately 6.4%, however, annual growth over this time period has been volatile, with a peak of 24.2% in 2012 and a trough of -6.1% growth in 2016. Port Hedland experienced lower volatility by comparison with Karratha, due to the Port Hedland economy’s continued economic expansion in the 2014-15 to 2016-17 period which was not replicated in Karratha. Local economic activity is largely centred on mining, which comprised 70.0% of Industry Value Add in 2018. In addition to mining, other key sectors of the economy include transport postal and warehousing (8.0% of IVA) and construction (5.1% of IVA). In recent years, the maturation of the mining sector has resulted in a shift in economic activity from construction (in this case, the construction of mines) into mining activity (i.e. the extraction of natural resources), this shift is evident in the composition of economic activity as well as employment within the region over the past five years.
- Tourism:** In 2018, approximately 258,980 visitors came to Port Hedland, with the majority of visitation (62%) is comprised of domestic overnight visitation. The majority of visitors (51.6%) came to the region for business purposes (aligning with the presence of mining in the region) whilst a further 27.9% visited for holiday reasons. Accommodation types varied between Port Hedland and comparison regions, with ‘other accommodation’ the most common in Port Hedland (comprising of educational institutes, boats, accommodation in FIFO locations and on transportation vehicles), again likely reflecting the presence of the mining sector locally.

Key opportunities indicated through desktop analysis that have been identified through the competitive assessment for Port Hedland are summarised in the table below:

**Figure E. 1. Opportunities for Port Hedland**

Industry	Rational
Mining Support Services	Despite the sizeable mining industry in Port Hedland, components within the supply chain remain underrepresented. Mining support services is a prominent import into the region, presenting an opportunity for import replacement if there is adequate growth potential. Growth potential for this industry in Port Hedland is evidenced by the number of newly announced mining projects (by BHP, Rio Tinto and FMG), approval of the Elianna project and replacement of the Yandi mine with South Flank. These projects will grow the mining support services industry into the medium-term future; however, this industry will rely on continual activity associated with maintenance, transport and rehabilitation services for mining operations.
Construction	Port Hedland has experienced a shift away from construction to production activity, however, continued construction activity will prove vital to maintaining economic activity into the future. In particular, there is an opportunity for import replacement in construction services, which represent a large import into the region. A number of planned projects will support the growth of this industry into the medium-term future, including the Goldfields Highway - Meekatharra to Wiluna (valued at \$90 million), relocation of Port Hedland Wastewater Treatment Plan (valued at \$106 million) and Spoilback Marina Development (valued at \$95 million).
Manufacturing (Machinery and Equipment & Primary Metal Product)	Port Hedland has the potential to expand and strengthen supply chains within the local mining and construction industries, through supporting greater manufacturing activities. This will replace the current importation of manufacturing products and services (incl. specialized and other machinery and equipment manufacturing, structural metal product manufacturing and basic non-ferrous metal manufacturing) with local production, capturing this economic activity locally. Growth is anticipated to trend in line with increased construction and mining activity, and consequent demand.
Rental and Hiring Services (except real estate)	Port Hedland relies on importation for a large proportion of rental and hiring services, which could be replaced with local provision. Particular opportunities exist in transport equipment rental and hiring (incl. shipping rental, shipping container rental, truck rental, trailer rental etc.) and other rental and hiring (incl. construction and mining machinery rental). Adequate demand is present due to the existence of the Port of Port Hedland and consequent need for transportation equipment, as well as due to the construction and mining industries where machinery and transport equipment is needed. Consequently, growth is anticipated to trend in line with increased transport, mining and construction activity.



Industry	Rationale
Healthcare and Social Assistance	Healthcare and social assistance is anticipated to be the fastest growing industry in Australia by 2023, with total growth of 34% in regional areas. Regional hubs (like Port Hedland) will prove essential in servicing healthcare demand from their catchments. Facilities supporting this industry are currently underrepresented in Port Hedland, with just one hospital (Hedland Health Campus) and one residential care facility (Karlarra House Aged Care Facility). Therefore, particular opportunities exist in residential care services and other healthcare services, which are both vital to service community needs. Growth is anticipated to trend in line with the projected population growth of the region.



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# 1. INTRODUCTION

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## 1.1 BACKGROUND

Town of Port Hedland Local Government Area (Port Hedland) covers an area of 10,587km<sup>2</sup> and is located in the north west of Western Australia, approximately 1,322 km north of Perth. The Port of Port Hedland is one of the largest bulk handling ports in the world and the largest in Australia. The local economy is dominated by mining and related supply chain activity, which contributes over 1.5% of state GSP. The local government area (LGA) experienced exceptional economic growth from 2009 to 2014 as the resources boom supported significant construction activity. However, now that the boom has entered into the operational phase, economic growth has stabilised. The shift in the national mining landscape and the resultant change in economic outcomes for the region suggest it is an opportune time to revisit existing planning documentation within the local government area, in terms of both economic development and associated land planning.

## 1.2 APPROACH

AEC undertook background research and profiling for Port Hedland, including literature and data collection, and profiling. The profiling and analysis were conducted at the LGA level for Port Hedland and Karratha as well as the Regional WA level. The profiling and analysis led to the development of two individual profiles; a profile for Port Hedland and a Comparative Profile (including comparisons to Karratha and Regional WA).

AEC utilised its inhouse models to understand the potential and realistic opportunities and gaps in Port Hedland which can be pursued through economic development activities. This included a desktop competitive assessment, including location quotients and cluster mapping to determine labour specialisations of the region and industries to direct economic development activities towards. Import export analysis was also undertaken as part of the opportunity assessment. Analysis on the key macro-economic trends and influencing factors for Port Hedland has been undertaken as part of the competitive assessment.

This approach led to the determination of economic opportunities for Port Hedland.

## 1.3 GEOGRAPHY

For the purposes of this assessment, the following geographical areas have been utilised:

- Port Hedland (primary)
- Karratha (comparison)
- Regional WA (comparison)

Port Hedland and Karratha have been defined at the LGA level. Regional WA has been defined as Western Australia excluding the comprising LGAs of Greater Perth.

## 2. SOCIO-ECONOMIC PROFILE

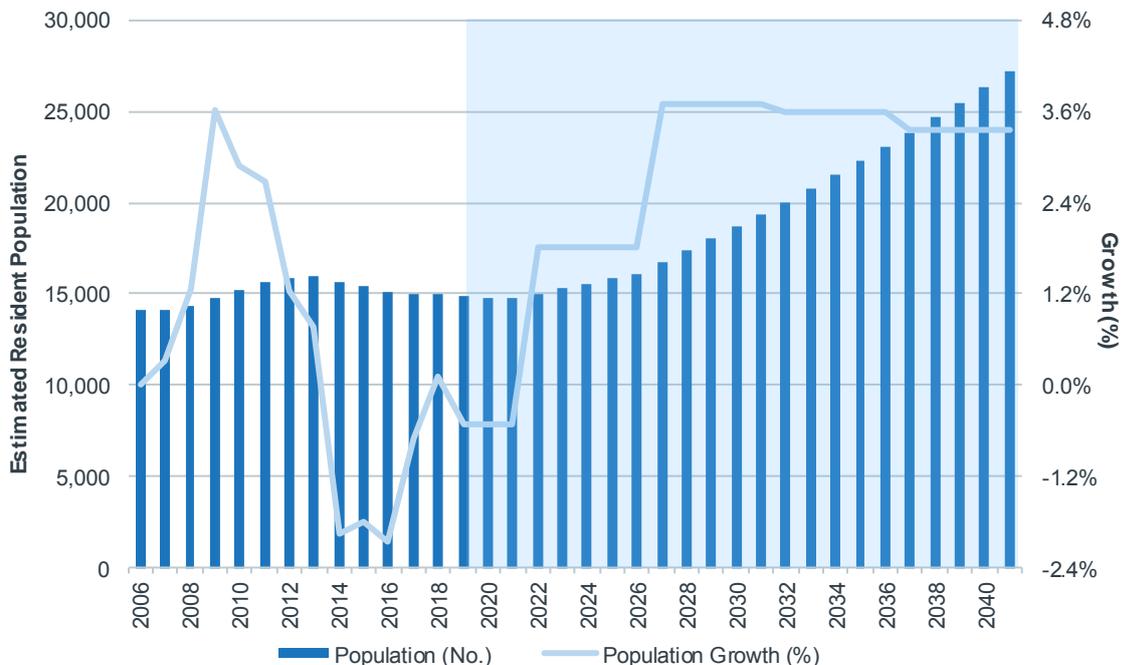
This chapter presents an analysis of the socio-economic environment of Port Hedland, informed by data collected from Council’s Profile.ID subscription. The findings and analysis presented in this section is supported by detailed information located in **Appendix A**.

### 2.1 POPULATION AND DEMOGRAPHY

Port Hedland’s estimated resident population increased by an average 0.5% per annum over the past 10 years, to reach approximately 14,975 people in 2018. Historical population growth has demonstrated great volatility, typical of regional mining communities, where population growth is strongly linked with economic outcomes. Population growth was strongest during the mining boom between 2006 and 2013 at 1.8% per annum (on average); after the mining boom (2013-2018) negative growth has recorded (1.3% per annum on average).

Port Hedland’s resident population is projected to increase by 2.5% annually (on average) for the next 20 years, supported by the anticipated boom in construction, including the capital works program to expand the Port (2-year project), BHP South Flank mine in Pilbara, FMG Port Hedland expansion, Rio Tinto expansion and new mines (Centre Point Finance, 2019).

**Figure 2.1. Historical and Projected Resident Population, Port Hedland, 2006 to 2040**



Source: Profile.ID (2016a), Profile.ID (2019).

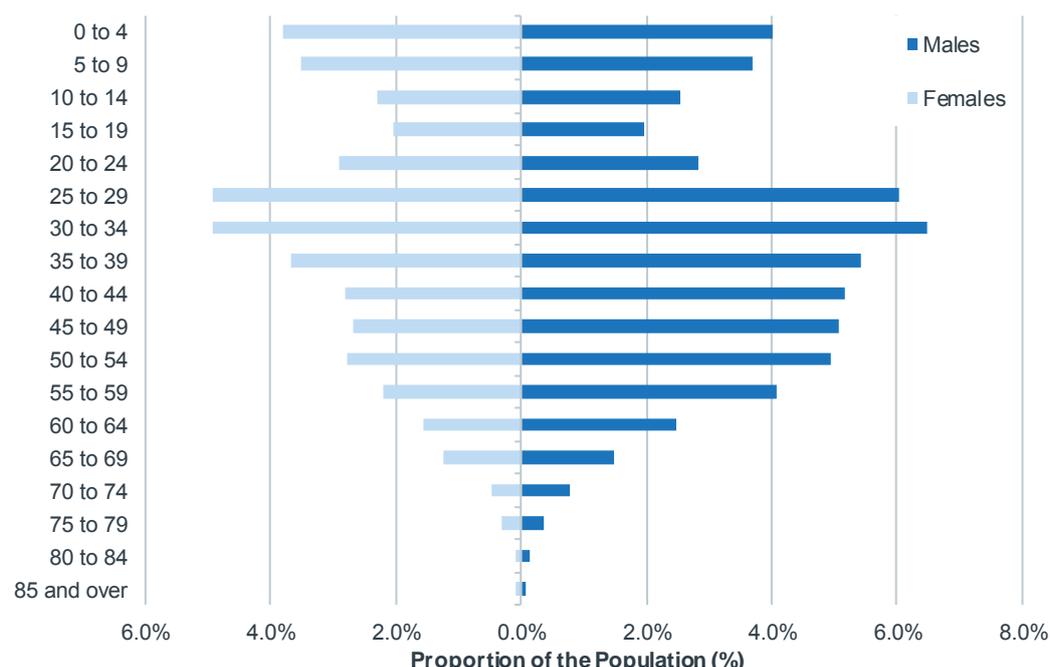
Due to concerns regarding the impact of high dust levels from industrial, natural and anthropogenic sources in Port Hedland, the Western Australian government has revealed an aim to cap the resident population (in dust affected areas) (Department of Jobs, Tourism, Science and Innovation, 2017). This will be conducted through residential property management. Therefore, this may result in overestimation of the current population and dwellings projections.

There is also potential for a ban on 100% FIFO employed mining operations in Western Australia, if the Government is to follow Queensland’s lead (Mining Safe to Work, 2019). This may lead to underestimation of the current population and dwellings projects.

These considerations (and other current and potential future regulations, developments and activities) have not been incorporated into the population and dwellings projections in this chapter, and hence should be viewed with caution.

The economic activity in Port Hedland has influenced population growth and the local demographic composition. Port Hedland has a higher concentration of males (57.6%) compared to females, particularly in the 25 to 39 years age cohort, likely due to the trades-related nature of work within the prominent industries of mining and construction. From 2011 to 2016, the proportion of males in the Port Hedland population decreased by 4.3%, whilst the proportion of females increased. The increasing portion of females and growth in the number of youth aged 0 to 19 years (2.2% in total between 2011 and 2016) reflects the migration of families to the region over this period.

**Figure 2.2. Age and gender Distribution, Port Hedland, 2016**



Source: Profile.ID (2016c).

The Port Hedland population is relatively culturally diverse with almost a quarter (20.4%) of the population comprised of those born overseas, an increase of 2.9% since 2011. Most were born in English speaking countries; however, modest growth was evident in the Filipino representation (1.5% between 2011 and 2016). Port Hedland’s cultural diversity is further enhanced by the indigenous population, representing approximately 16.0% of the total in 2016.

The number of educated people in Port Hedland is rising, with an increase in Year 12 completions of 5.2% between 2011 and 2016, to reach 41.4% in 2016. This shift is consistent with a broader increase in educational attainment across Australia’s regions. This is further evidenced by attainment of non-school qualifications, which increased for all qualification levels over the period. Vocational qualifications represented the largest proportion of non-school qualifications (34.0%) in 2016, likely reflecting the higher presence of industries such as construction and mining, which tend to require trades-related skills rather than university level education.

## 2.2 DWELLINGS AND HOUSEHOLD DEMAND

Port Hedland had approximately 5,470 households in 2016. Of these, families (couples with children) were the most prevalent household type in Port Hedland in 2016, comprising 28.2% of all households. Lone person households recorded strong growth (3.3%) between 2011 and 2016, potentially influenced by the number of working age males (particularly 30 to 34 years aged cohort) over this period. The number of households are expected to increase by approximately 2,630 (2.3% annually) between 2016 and 2041.



Household incomes in Port Hedland are reflective of the significant economy activity in the mining industry, with average household income reported at \$2,793 per week in 2016 (equating to \$145,236 per annum). This is a positive sign for consumption, investment and the health of the regional economy.

Lowering house prices and rents were recorded in Port Hedland between 2014 and 2018, with a reduction of 26.1% in house price and 24.9% in rents. Lower housing and rental prices combined with high household incomes suggest improved housing affordability in the region. Similar to many regional communities, this was driven by the reduced demand from population as population growth was negative over this period. Negative population growth resulted from the end of the mining boom, as mines shifted from expansionary to production phases.

Port Hedland recorded approximately 7,667 dwellings in 2016, of which 67.9% were occupied. Occupancy rates are still recovering from the end of the mining boom, which instigated negative population growth (until 2018) and hence reduced dwelling demand. Low density (separate housing) dwellings are becoming increasingly prevalent, with 1,470 new separate houses between 2011 and 2016 (total growth of 5.9%). Similarly, dwellings are expected to increase by 4,630 (1.9% annually on average) and occupancy rates by 0.4% annually (on average), to reach 75.6% in 2041. Over the next 20 years, projected residential population growth is anticipated to drive increased demand and put pressure on the delivery of residential development sites.

Separate to the above analysis, a large number of FIFO workers (usually short term) are accommodated in TWA facilities. This is evidenced by the large supply of TWA facilities, including the Gateway Village, extensive supply of motels and The Landing.

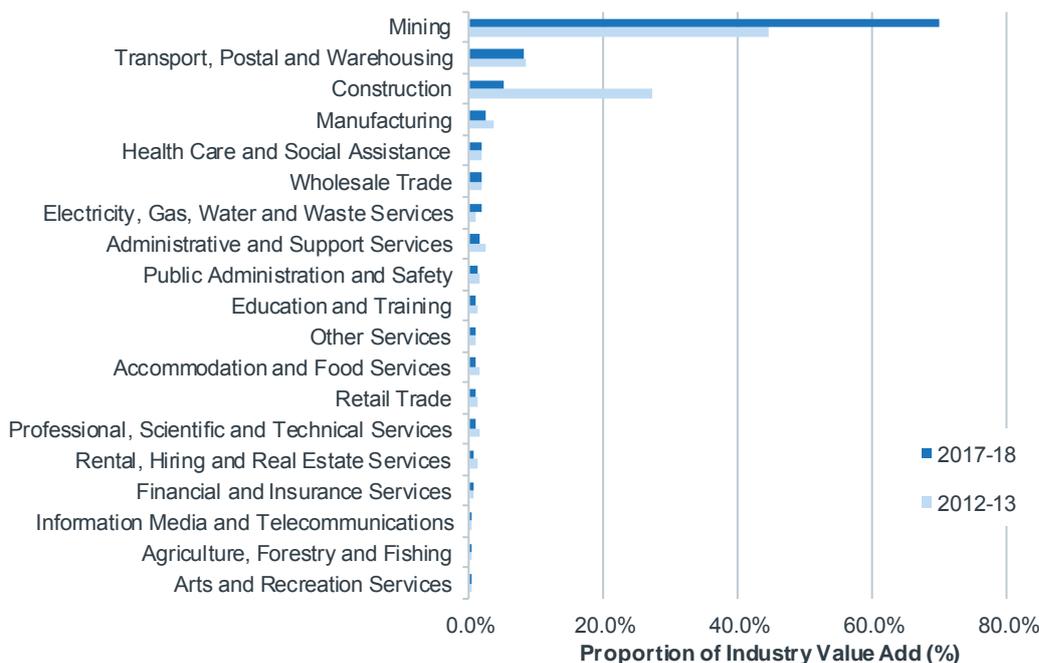
### 2.3 ECONOMY

In 2018, the Port Hedland economy recorded Gross Regional Product of approximately \$3.7 billion. Port Hedland's economic growth is heavily influenced by fluctuations in mining and construction industry activity. Between 2001 and 2018, the economy recorded average annual growth of approximately 6.4%, however, annual growth over this time period has been volatile, with a peak of 24.2% in 2012 and a trough of -6.1% growth in 2016.

Key industries for Port Hedland's economy in 2018 were:

- 1 Mining: Contributed \$1,218 million (70.0%) to industry value add in 2017-18.
- 2 Transport, Postal and Warehousing: Contributed \$285 million (8.0%) to industry value add in 2017-18.
- 3 Construction: Contributed \$183 million (5.1%) to industry value add in 2017-18.

**Figure 2.3. Proportion of Industry Value Add, Port Hedland, 2012-13 and 2017-18**



Source: Economy.ID (2018b)

Port Hedland's resources sector has experienced a shift away from construction activity, which was strong in 2012-13, to production activity. This is evidenced by mining activity recording 25.5% growth since 2012-13, whilst construction activity recorded a 21.9% decline over the same period.

The industrial composition of the economy is reflected in the occupational breakdown of workers. Technicians and trades workers were the most prevalent occupation held in 2016 (26.9%), followed by machinery operators and drivers (17.5%); both occupations driven by mining and construction activity.

In 2018, Port Hedland recorded an unemployment rate of 5.0%, higher than its average of 4.4% over the 2010 to 2018 period. The unemployment rate in Port Hedland has fluctuated significantly, from a low of 2.7% in 2012 to a high of 5.5% in 2015.

The retail sector in Port Hedland is facing an undersupply of provision of cafes, restaurants/ takeaways, groceries and shop retail offering, which needs to be corrected to accommodate the projected population growth over the next two decades (Town of Port Hedland, 2012). Currently, South Hedland Square and Port Hedland Boulevard are the major retail centres servicing the population, holding 63 shops in total.

There are a number of developments proposed for Port Hedland which may support economic growth in the coming years. The following is a list of identified known developments that may impact on the Port Hedland economy.

**Table 2.1. Major Projects, Port Hedland**

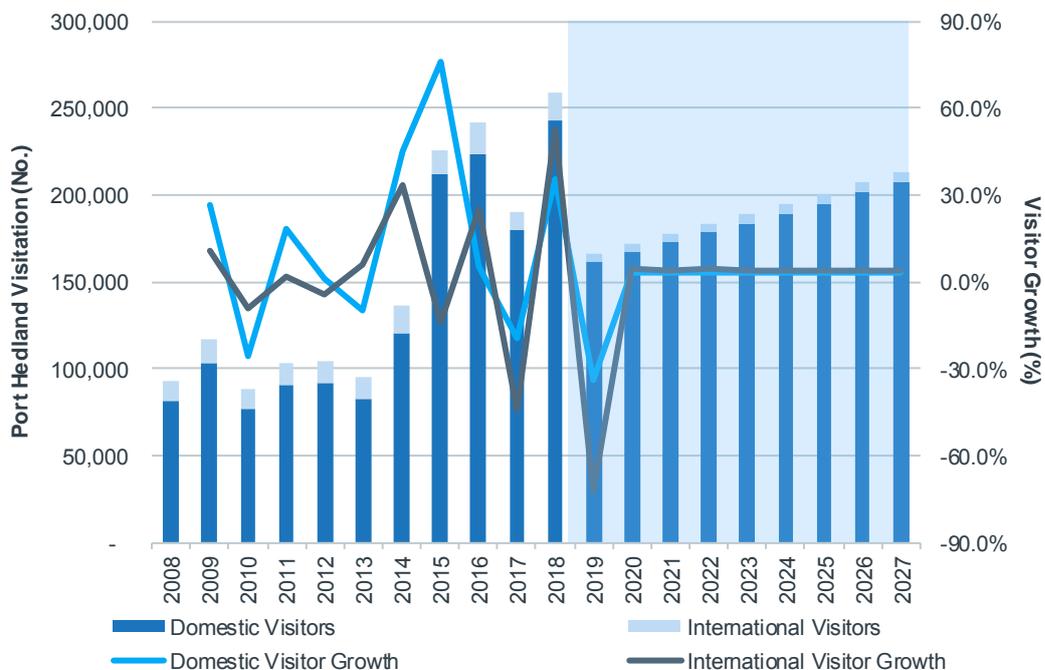
Project	Cost	Status	Details
Main Roads WA - Goldfields Highway - Meekatharra to Wiluna	\$90 million	Planning	The long-term goal is to achieve continuous two-lane seal width between Meekatharra and Wiluna (180km), with an approach of staged construction of priority sections depending on level of funding.
Medium Density/ Mixed Use sites (two) at Pretty Pool	Unknown	Stage 3 yet to be released	7ha residential development designed to complement the fragile surrounding environment.
Athol Street	Unknown	Unknown	Development of 40ha of land at Athol Street, Cooke Point in Port Hedland.
Hedland Junction at Wedgefield Industrial Estate	\$275,000	Underway	Offering expansion for small to medium businesses servicing the mining, construction and transport industries.
Iron Bridge Magnetite Project and Port Hedland	\$3.7 billion	Stage 2 construction in late 2019	The Project will deliver high grade 67% Fe magnetite concentrate product in the first half of calendar year 2022. It will employ approx. 3,000 people during construction and 900 full time positions once operations commence in 2022.
Relocation of Port Hedland Wastewater Treatment Plan	\$106 million	Undergoing a Business Case	Combining the Port Hedland WWTP with the South Hedland WWTP, which would undergo a substantial upgrade. This will free up land in Port Hedland for residential and commercial development.
South Hedland Cemetery	\$3.4 million	Masterplan completed and approved	Upgrades include additional car parking, shade and shelter, extra seating throughout the site, upgrades to the path system, landscaping and new equal access toilets. Introduction of a ring road with parking and pedestrian entrance dates at each border.
South Flank to replace Yandi mine	\$4.7 billion	Underway	South Flank will replace Yandi mine and is due to become operational by 2021, running through until at least 2046. It will generate about 2,500 jobs during construction and a further 600 ongoing operational roles.
Berth 3 Deck Replacement Project - Port of Port Hedland	\$33.5 million	Construction underway	Replacement of Berth 3 concrete deck, installation of the new wharf fenders and complete other ancillary works. Expected to be completed by late October 2019.
Sutherland Street Upgrade	Unknown	Underway	Better line markings and solid verge construction - demolition, pavements, construction, kerb construction, line marking and landscaping.
Spoilback Marina Development	\$95 million	Concept plan approved	Construction of 20 boat pens with capacity up to 45, a two-lane boat ramp, two breakwaters and internal revetment walls and a separate channel access to deep water. Expected before 2020.

Source: Mid-West Development Commission (2019), Landcorp (2019), Fortescue (2019).

## 2.4 TOURISM

Port Hedland recorded approximately 244,000 domestic visitors (both day trips and overnight) and 15,300 international visitors in 2018. The large fluctuations in visitation over the 2008 to 2018 historical period can be attributed to the smaller size of Port Hedland compared to metropolitan areas, as well as the limitations of a small sample size during data collection.

**Figure 2.4. Visitation, Port Hedland, 2008 to 2018**



Note: Visitation projections have been estimated using Tourism Research Australia visitor night projections for Regional WA. Visitor night statistics were collected for 2018, to which visitor night growth projections were applied. These visitor night projections were converted to visitor projections by assuming the average length of stay of visitors was held constant over the estimation period (2019 to 2027). Source: Tourism Research Australia (2019a,b,d).

Port Hedland is renowned for its sizeable resources industry, private railways, large ships and export tonnage port, providing visitors with a unique opportunity to get up close with operations of a nexus of Australia’s iron ore mining industry. Key attractions include Karijini National Park, Spinifex Hill Studios, Courthouse Gallery, Cemetery Beach Park, Redbank Bridge Salt and Train Lookout and Don Rhodes Mining Museum. Popular events include the Port Hedland Cup and Pilbara Music Festival.

The majority of visitors (51.6%) came to the region for business purposes (aligning with the presence of mining in the region) whilst a further 27.9% visited for holiday reasons. The demographic composition of visitors in Port Hedland is largely linked to business visitation in Port Hedland, including FIFO employment opportunities. The strong FIFO presence within industry in Port Hedland, particularly construction and mining, attracts a large proportion of young males to the area. This is evidenced by males recording higher visitation than females in 2018, particularly for overnight stays where 90.1% of visitors were male. Correspondingly, domestic visitors were primarily those aged 25 to 34 years (38.6%); influenced by FIFO visitation. FIFO visitation is not largely evident in the international visitor market, which recorded a high number of visitors in the above 55 years old age cohort (27.7%) in 2018.

Within holiday visitation, social activities, outdoor/ nature and active outdoor/ sport activities were the most popular activities for both domestic and international visitors, whilst international visitors also enjoyed local attractions/ tourist activities.

‘Other accommodation’ was the most common accommodation type in 2018 (41.9%), which comprises of educational institutes, boats, accommodation in FIFO locations and on transportation vehicles. It is anticipated this was largely driven by the FIFO visitation in Port Hedland, where workers reside in accommodation camps such as ‘The Gateway Village’.

Visitation expenditure, including on activities, transport, accommodation etc., in Port Hedland equated to \$8.56 million for international visitors and \$147.30 million for domestic overnight visitors in 2018.

Domestic visitation is projected to grow by 3.2% per annum (on average) until 2027, whilst international visitation is expected to be higher at 4.3% per annum (on average). As half of visitation in Port Hedland is related to business (incl. FIFO work), visitation is anticipated to trend in line construction and mining activity in the coming years.

### 3. COMPARATIVE PROFILE

This section presents an analysis of the socio-economic environment of Port Hedland, relative to the comparator regions of Karratha and Regional WA. The findings and analysis presented in this section are supported by detailed information located in **Appendix B**.

Due to the presence of input errors and ‘not stated’ categories within ABS Census data, AEC applies treatments to this data. These treatments include:

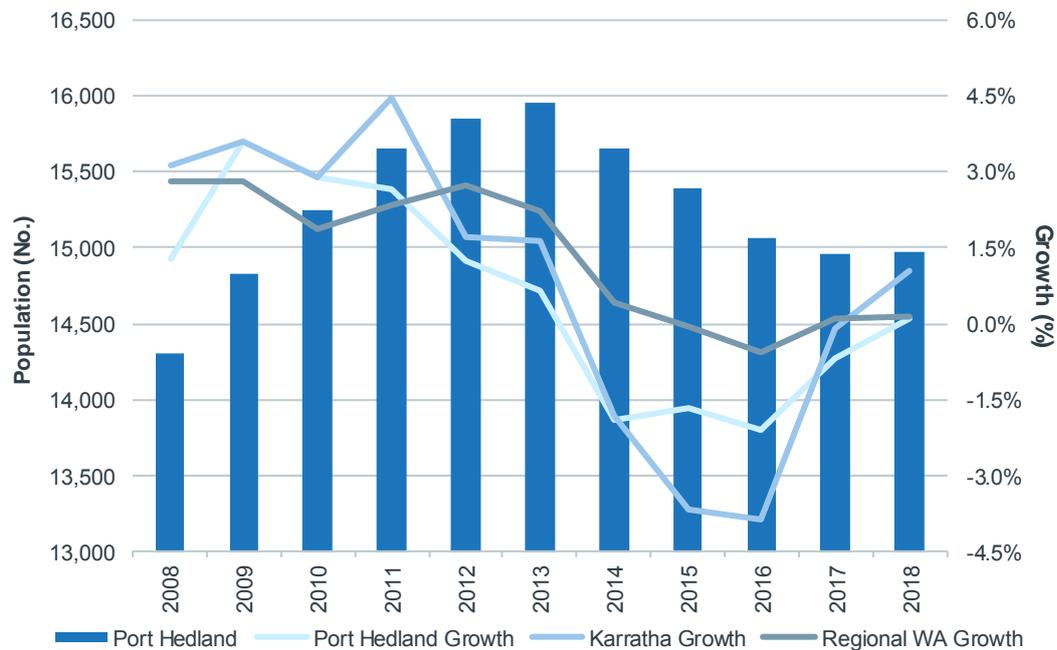
- Re-allocation of ‘not further defined’ and ‘not stated’ categories within each data topic
- Re-allocation of ‘no usual address’ categories within each geography type
- Re-balancing of lower level geographies to higher level geographies to ensure aggregation of smaller geographies of the same type equals the Australian total.

Due to these processes, AEC’s inhouse data differs, and cannot be compared, to those provided in Chapter 2.

#### 3.1 POPULATION AND DEMOGRAPHY

Port Hedland and neighbour, Karratha, have experienced similar volatility in population growth in recent years. For both regions, population growth has mirrored the volatility in the local economy which has been driven by fluctuations in the resources sector. Since 2001, Port Hedland’s population growth has recorded lower volatility by comparison with Karratha, due to the Port Hedland economy’s continued economic expansion in the 2014-15 to 2016-17 period which was not replicated in Karratha (refer to Section 3.3 for further details). However, both Port Hedland and Karratha have recorded greater fluctuations in population growth by comparison with Regional WA which has a larger population and more diverse economic base.

**Figure 3.1. Historical Population, Comparison Regions, 2008 to 2018**



Source: ABS (2019).

The labour intensive (trades-related) nature of work in Regional WA and comprising LGAs is a large determinant of demographic characteristics, as these occupations tend to employ young males (Labour market Information Portal, 2018). Port Hedland revealed a higher concentration of males (53.7%) compared to females in 2018, in line with Karratha (55.1%), however slightly less than Regional WA (50.7%). The 25 to 39 years age cohort was the

most prominent in Port Hedland (31.4%). This is consistent with Karratha (31.7%), however, Regional WA's population is more evenly distributed in its age structure.

Almost a quarter (24.5%) of Port Hedland's population comprised of those born overseas. This is slightly higher than Karratha (23.5%) and Regional WA (21.1%). The Malay and Tagalog speaking populations were the largest foreign speaking representations in Port Hedland, however, both Karratha and Regional WA recorded lower representations of these groups. Port Hedland's indigenous population represented approximately 19.1% of the population in 2016, higher than in Karratha (14.5%) and Regional WA (8.1%).

There has been an overall trend of increasing educational attainment across Port Hedland, the comparison regions, and more broadly across regions in Australia (Australian Institute of Health and Welfare, 2018). Port Hedland revealed a higher proportion of Year 12 completions than Regional WA in 2016 (by 6.6%), however, fell slightly behind Karratha (by 2.4%). Certificates were the most common form of non-school qualification in Port Hedland in 2016 (28.8%). This was similar in Karratha (28.2%), however, slightly lower in Regional WA.

### 3.2 DWELLINGS AND HOUSEHOLD DEMAND

Whilst Port Hedland's housing supply is primarily comprised of separate houses, it has a more diverse housing supply than Karratha and broader Regional WA which record proportions of the housing stock as separate houses of approximately 73.1% and 82.9%, respectively.

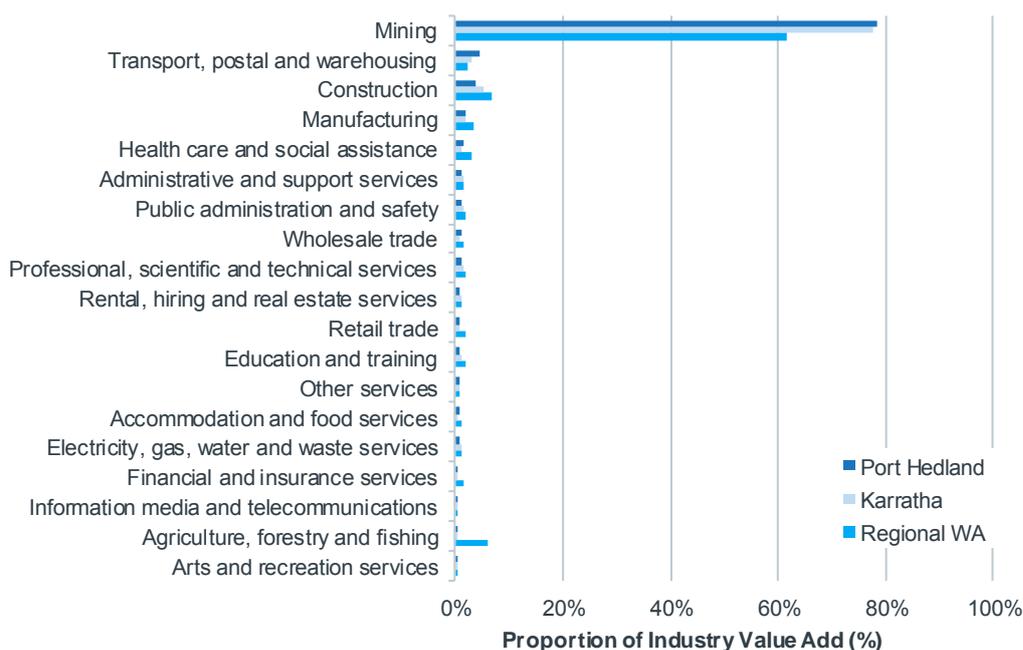
One family households were consistently the most prevalent household type across Port Hedland and the comparison regions. However, both Port Hedland and Karratha recorded lower prevalence of lone person households and higher proportions of group households than Regional WA, likely reflecting the accommodation options for mining workers in these regions.

Corresponding to the higher average household incomes in Port Hedland and Karratha, housing stress is less problematic in these communities than for Regional WA. Rental stress, in particular, was considerably lower in 2016 in Port Hedland (5.9% of rented dwellings) and Karratha (6.3%) compared to Regional WA (23.5%).

### 3.3 ECONOMY

Between 2012-13 and 2017-18, Port Hedland's economic growth surpassed that of Regional WA (by 2.9%) and Karratha (by 5.4%) which recorded negative growth. Port Hedland's historical gross regional product growth rates are similar to Karratha, which have followed the ebbs and flows of mining and construction industry activity. However, Port Hedland has experienced lower volatility by comparison with Karratha, due to the economy's continued economic expansion in the 2014-15 to 2016-17 period which was not replicated in Karratha. Compared to Port Hedland and Karratha, Regional WA's growth experienced a downward trend between 2010-11 and 2015-16.

**Figure 3.2. Proportion of Industry Value Add, Comparison Regions, 2017-18**



Source: AEC (unpublished a).

The three key industries for Port Hedland’s economy were in line with both Karratha and Regional WA in 2017-18:

- Mining
- Transport, Postal and Warehousing
- Construction

However, Port Hedland had a greater reliance on transport, postal and warehousing than both Karratha and Regional WA in 2017-18. This can be attributed to Port Hedland’s geographical location and proximity to the water, with one of the world’s largest export ports (in terms of cargo tonnage) situated on its coastline (Pilbara Ports Authority, 2019). Port Hedland had a heavier reliance on the mining industry than Regional WA, contributing to 78.6% of industry value add compared to 61.6% in Regional WA in 2017-18. Employment by industry (by place of work) estimates are consistent with this result in 2017-18, however, larger differences in labour specialisations of the above industries are evident between Port Hedland and comparison regions.

Compared to the comparison regions, in terms of employment by occupation, Port Hedland has a higher prevalence of machinery operators and drivers, whilst Karratha and Regional WA have a higher prevalence of professionals. The low prevalence of professional occupations is typical of regional areas with a small population; Port Hedland’s population represents just 66.8% of Karratha’s population.

Port Hedland recorded an unemployment rate of 4.4% in 2018. Port Hedland’s unemployment rate fluctuations have trended in line with Karratha since 2006, sitting below the Regional WA average (5.6%), however higher than Karratha’s rate of 2.5%.

### 3.4 TOURISM

Port Hedland recorded higher growth in domestic visitation since 2013 than the comparison regions; 24.1% per annum (on average) growth compared to 12.9% in Karratha and 7.4% in Regional WA. International visitation growth differed, with Regional WA recording higher growth than in Port Hedland (5.8% compared to 4.1% per annum on average), whilst Karratha recorded negative growth (2.1% per annum on average) since 2013.

In 2018, visitation for business purposes was the most common for Port Hedland (51.6%) and Karratha (41.0%). Comparatively, Regional WA recorded high visitation for holidaying purposes (53.3%). The demographic composition of visitors in Port Hedland is influenced by the large proportion of business visitation, typically linked to mining and construction employment (trades-related FIFO work). Domestic visitors in Port Hedland were

primarily those aged between 25 and 34 (38.6%), whilst domestic visitation from the 45 and above age cohort was the most prevalent in Karratha (57.0%) and Regional WA (57.9%). International visitation by age was consistent across Port Hedland and comparison regions, with the above 55 age cohort the most prevalent. Males were the most common visitor across Port Hedland and comparison regions.

In 2018, domestic visitors in Port Hedland tended to undertake social activities and active outdoor/ sports activities, whilst international visitors more commonly undertook social activities and local attractions/ tours. This differs from Karratha and Regional WA, where both domestic and international visitors more commonly undertook social activities and outdoor/ nature activities.

In 2018, visitors in Port Hedland tended to stay in 'other accommodation' (41.9%) which comprises of educational institutes, boats, accommodation in FIFO locations and on transportation vehicles. Comparatively, 38.0% of visitors in Karratha and 69.9% of visitors in Regional WA stayed in 'other private accommodation', which comprises of friends or relatives property, caravan or camping, homestay and other non-commercial property (TRA, 2019a, b). The higher proportion of Regional WA visitors staying in 'other private accommodation' may be attributed to the higher holiday visitation compared to Port Hedland and Karratha.

International visitor expenditure was \$5.40 million lower in Port Hedland than in Karratha and \$63.0 million lower for domestic overnight. This can be attributed to the 53.4% higher visitation recorded for Karratha compared to Port Hedland in 2018.

Port Hedland domestic visitation is projected to growth by 3.2% per annum (on average) from 2019 to 2027 and international visitation by 4.3% per annum (on average), in line with projected growth for Karratha and Regional WA. As half of visitation in Port Hedland is related to business (incl. FIFO work), visitation is anticipated to trend in line construction and mining activity in the coming years.

## 4. LAND DEMAND ASSESSMENT

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This chapter constitutes a review of the Port Hedland Regional Land Supply Assessment Draft (January 2019). This document has been reviewed within the context of the data collected and its implications for the land strategy.

### 4.1 OVERVIEW

The *Port Hedland Regional Land Supply Assessment Draft (January 2019)* provides guidance on the volume of land required to support future population and employment activities within Port Hedland in the short, medium and long term. Whilst the individual datapoints recorded for the region, in terms of current and future population and economic activity, differ somewhat between the *Port Hedland Regional Land Supply Assessment Draft* and those published in Chapters 2 and 3 of this document, the context of the existing profile and the implications outlined for future land demand remain consistent.

Overall, the study found sufficient land availability to accommodate future population growth with remaining lots available in existing residential lands and rural living estates. Residential land zones (excluding rural living estates) are estimated to be sufficient to accommodate a population of approximately 26,000 and would be anticipated to support the Port Hedland population for at least the next 48 years (under medium and high population growth scenarios). In addition to residential land, rural living estates are present in the region. Existing estates have experienced low take-up rates in recent years, reflecting low demand for rural living zones within Port Hedland. It is anticipated that the Bosna Estate will be sufficient to meet short-term demand for rural living lands, whilst the sub-division plans for Quartz Estate are sufficient to meet long-term demand.

Industrial land zoning in Port Hedland is provided for industrial, industry, light industry, strategic industry and transport development. Industrial lands in Port Hedland total 5,950 Ha with just 190 Ha considered developed. A considerable portion of zoned land (93%) is considered 'unrated' and almost all of this land is Crown Land (zoned strategic industry). Existing estates of Wedgefield and West End are considered fully developed. The delivery of the Boodarie SIA, approximately 4,600 Ha is anticipated to accommodate large-scale noxious and other heavy industry uses as well enabling accommodation of heavy and general industry uses from Wedgefield and West End, enabling the accommodation of increased industrial activity within Port Hedland. The study does not explicitly indicate whether anticipated industrial activities would require additional industrial lands.

Commercial land zoning in Port Hedland is provided for within the airport, commercial, mixed business, tourism and town centre zones. These zones account for 120 Ha of land in the municipality, 58% of which is developed. Approximately 11% of land is considered undeveloped, and the remainder is considered unrated. Recent population declines have resulted in reduced demand for commercial land within the municipality. The study found that the existing supply of zoned land would be adequate to meet demand in the short to medium term.

### 4.2 IMPLICATIONS FOR LAND PLANNING

The findings of the *Port Hedland Regional Land Supply Assessment Draft* indicate sufficient land for anticipated population growth and associated retail and commercial activity. However, estimated demand for industrial lands is not quantified. Identifying and quantifying the degree of economic diversification which takes place in the region over the coming decades will be essential to understanding the adequacy of industrial lands available within the municipality. Whilst the study discusses potential avenues for economic diversification, such as increased activities from knowledge-based industries, these are not quantified against existing land supply (though the anticipation of appropriate sites for campuses is suggested). However, given the quantum of supply coming online in the near future, it is likely that the volume of industrial land will be adequate for industry in the short to medium term.

With land supply adequate for population and likely employment activities in the region, the focus for land planning in Port Hedland can focus on the ideal location and mix of land uses within the area.

## 5. FUTURE CHALLENGES & OPPORTUNITIES

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This chapter summarises results from the competitive assessment, consisting of location quotient and cluster mapping analysis, import/ export analysis and macro-economic trends analysis at the local, state and national level. Details associated with this summary are located in **Appendix C**. Opportunities were drawn and identified from these assessments.

### 5.1 COMPETITIVE ASSESSMENT RESULTS

#### 5.1.1 Location Quotient and Cluster Mapping

Mining is a prominent industry within the Port Hedland economy, responsible for 70% of total industry value add in 2017-18. The success of Port Hedland's mining industry is enhanced by the Port of Port Hedland, one of world's largest bulk export Port's, which is responsible for approximately 75% of the State's and 50% of the world's seaborne iron ore exports (in conjunction with the Dampier Port) (Pilbara Ports Authority, 2018). Coupled with the extensive inland rail network, Port Hedland is well positioned to service mining exports and transport industry activity.

Accordingly, Port Hedland has well established industries in mining and transport, postal and warehousing, as well as electricity, gas, water and waste services, and rental, hiring and real estate services. Each of these sectors has a strong existing labour specialisation in the region. Forward projections of population (incl. increased population attraction of remote workers) and the number of newly announced projects (predominantly mining and construction), are supportive for the future of these sectors locally.

Manufacturing, education and training and healthcare and social assistance industries are comparatively lacking in terms of labour specialisation in Port Hedland. Port Hedland has the potential to support greater advanced manufacturing in terms of mining equipment, technology and services (METS), which would enhance the mining supply chain locally. To transform Port Hedland from a region of cyclical economic activity to a more balanced and sustainable economy, the provision of high-level community services is essential. Hence opportunities exist in the education and training and healthcare and social assistance industries.

Service provision (incl. education and training, healthcare and social assistance, professional scientific and technical services etc.) are also lacking in terms of labour specialisation in Port Hedland. This is typical of a regional community which may not be able to support a large provision of these services. However, in the case of Port Hedland, the volatile population over the past decade has resulted in minimal investment directed towards increasing service provision in line with demand from the population. Projections reveal Port Hedland's population is anticipated to increase by 2.5% annually (on average) for the next 20 years; increased service provision will be required to fill the gap.

#### 5.1.2 Import/ Export Analysis

Local supply chains could be further established, with \$1.4 billion inputs purchased from outside the local economy compared to just \$711.6 million purchased within the local economy. Key imports to the region consist of construction, financial and insurance services and mining support services. Evidently, import replacement opportunities exist for construction and mining support services, which will strengthen these local industry supply chains. The high importation of financial and insurance services is consistent with those seen in similar regional areas of Australia. Although increased critical mass associated with population growth and increased population attraction of remote workers may provide some degree of import replacement over time, it is likely this sector will remain a key import to the region into the future. Local exports are reflective of key industries in the region, including metal ore mining, construction and transport and logistics.

### 5.1.3 Macro-Economic Trends Analysis

Key macro-economic trends potentially influencing Port Hedland's economy include:

- **Mining Activity Boom and Busts:** Port Hedland's economy runs on direct and indirect mining activity. The booms and busts within the mining activity cycle impact direct labour usage, intermediate input usage for mining operations, dividends, retained earnings and investment in the economy. The prolonged downturn in mining activity since 2013 is anticipated to recover, due to a number of new mining projects as well as the approval of the Eliwana project and replacement of the Yandi mine with South Flank.
- **Growing Population:** Volatility in annual population growth rates in regional mining communities is common, where population growth is strongly linked to periods of operational expansion and major construction works. Positive population growth is anticipated for Port Hedland until 2041, with growth anticipated in line with the growth in mining and construction industry activity.
- **Growing Dwelling Demand:** Dwelling demand in Port Hedland differs from that in Western Australia as a whole, with a more diverse housing supply. Port Hedland's dwelling demand is heavily influenced by changes in the resources sector, which impacts population growth, real estate confidence and thus demand for dwellings. Port Hedland's dwelling demand has decreased by 3.6% annually between 2006 and 2016; yet this is anticipated to increase with projected population growth (refer to Figure 2.1).
- **Consumer Expenditure Patterns:** Consumer expenditure in Port Hedland is heavily driven by activity cycles of the mining industry, as resident workers are typically directly or indirectly associated with employment in this industry. The retail sector in Port Hedland is small, representing just 5.2% of overall employment. Therefore, capturing greater spend from local residents and FIFO workers will prove essential for growth over the coming years.
- **FIFO Practises:** FIFO practises are common in areas associated with labour-intensive, short-term activities such as construction works. More FIFO workers will be required over the next few years in Port Hedland, with the anticipated boom in construction including the capital works program to expand the Port (2-year project), BHP South Flank mine in Pilbara, FMG Port Hedland expansion and Rio Tinto expansions and new mines (Centre Point Finance, 2019).
- **Visitation Activity:** Tourism in Port Hedland is associated with its shipping and mining heritage as well as its Indigenous and European history experiences. Domestic visitors can be primarily attributed to those visiting for business purposes (54.1%), followed by holidaying visitors (25.3%). Comparatively, international visitors are primarily comprised of those on holiday (69.1%) followed by business (11.9%).

## 5.2 IDENTIFIED OPPORTUNITIES

Industry opportunities identified through the competitive assessment are outlined in the table below. Tables and graphs supporting these results can be found in **Appendix C**. Key factors considered in the identification of industry opportunities includes:

- Industries with low labour specialisation but high growth, as these industries may have areas which are underrepresented and have sufficient demand for growth
- Industries with high labour specialisation and high growth, as these industries may have areas that can be further expanded to optimise the economic contribution of the industry
- Prominent imports into a region, where skills and labour can be easily sourced, as this can provide opportunities for import replacement
- Macro-economic trends.

**Table 5.1. Industry Opportunities for Port Hedland**

Industry	Rational
Mining Support Services	<ul style="list-style-type: none"> <li>• Currently mining support services are a key import into Port Hedland (\$158 million in 2015-16), presenting an opportunity for import replacement.</li> <li>• Growth is anticipated to trend in line with growth in the mining industry, which is expected to increase significantly with the number of new mining projects as well as the approval of the Eliwana project and replacement of the Yandi mine with South Flank</li> </ul>
Construction	<ul style="list-style-type: none"> <li>• Currently Port Hedland has low labour specialisations and high growth expectations at the state level for non-residential building construction and other construction works, which provides opportunities which will prove essential for industry diversification and town development/ enhancement.</li> <li>• Construction services are a prominent import into Port Hedland (including the areas of land development and site preparation, building structure, building installation, building completion and other construction services), which provides opportunities for import replacement.</li> <li>• There are a number of construction projects planned and underway in residential construction, non-residential construction etc. (Table 2.1), which will grow demand for this industry.</li> </ul>
Manufacturing (Machinery and Equipment & Primary Metal Product)	<ul style="list-style-type: none"> <li>• Currently Port Hedland has low labour specialisation and moderate growth expectations at the state level in this industry, which presents an opportunity for expansion.</li> <li>• Manufacturing, is a prominent import into Port Hedland, providing opportunities for import replacement.</li> <li>• Particularly, Port Hedland has the potential to support greater advanced manufacturing in terms of metal product, machinery and equipment, which would enhance the mining and construction supply chains locally.</li> <li>• Growth is anticipated to trend in line with construction and mining activity and consequent demand</li> </ul>
Rental and Hiring Services (except real estate)	<ul style="list-style-type: none"> <li>• Currently Port Hedland has low labour specialisation and moderate growth expectations at the state level in this industry, which presents an opportunity for expansion.</li> <li>• Rental and hiring services are a large import into Port Hedland, which provides opportunities for import replacement</li> <li>• Particular opportunities exist in motor vehicle and transport equipment rental and hiring and other goods and equipment rental and hiring, which are anticipated to grow with increased construction activity and hence could be expanded.</li> </ul>
Healthcare and Social Assistance	<ul style="list-style-type: none"> <li>• Currently Port Hedland has low labour specialisation and moderate growth expectations at the state level in this industry, which presents an opportunity for expansion. As the population in Port Hedland continues to grow, health care and social assistance will continue to become more prominent.</li> <li>• Particular opportunities exist in residential care services and medical and other health care services, which both are vital to service community needs.</li> <li>• This industry is currently under-represented in Port Hedland, with just:                         <ul style="list-style-type: none"> <li>○ One hospital servicing the Port Hedland (Hedland Health Campus)</li> <li>○ One residential care facility in Port Hedland (Karlarra House Aged Car Facility)</li> </ul> </li> <li>• This industry is anticipated to be the fastest growing in Australia by 2023, with 34% growth in regional areas (Regional Australia Institute, 2019). Regional hubs (like Port Hedland) will prove essential in servicing the healthcare demand from their catchments.</li> </ul>

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## APPENDIX A: SOCIO-ECONOMIC PROFILE DETAILS

### POPULATION AND DEMOGRAPHICS

**Table A. 1. Age Breakdown, Port Hedland, 2011 and 2016**

Age	2011	2016	Change
0 to 4	8.3%	9.5%	1.2%
5 to 9	7.0%	8.5%	1.5%
10 to 14	5.9%	5.7%	-0.2%
15 to 19	5.5%	4.7%	-0.8%
20 to 24	8.6%	6.2%	-2.4%
25 to 29	11.6%	11.0%	-0.6%
30 to 34	9.9%	11.6%	1.7%
35 to 39	9.7%	9.1%	-0.6%
40 to 44	7.9%	7.6%	-0.4%
45 to 49	7.7%	7.2%	-0.5%
50 to 54	7.2%	6.9%	-0.3%
55 to 59	5.1%	5.4%	0.3%
60 to 64	3.0%	3.1%	0.1%
65 to 69	1.2%	1.7%	0.6%
70 to 74	0.7%	0.8%	0.0%
75 to 79	0.3%	0.5%	0.2%
80 to 84	0.2%	0.3%	0.0%
85 and over	0.2%	0.2%	0.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	-
<b>Avg. Age</b>	<b>31.4</b>	<b>31.3</b>	-

Source: Profile.ID (2016a)

**Table A. 2. Indigenous Population, Port Hedland, 2011 and 2016**

Year	Indigenous Population (No.)	Proportion of Total Population (%)
2011	2,224	14.2%
2016	2,416	16.0%
Change (%)	8.6%	1.8%

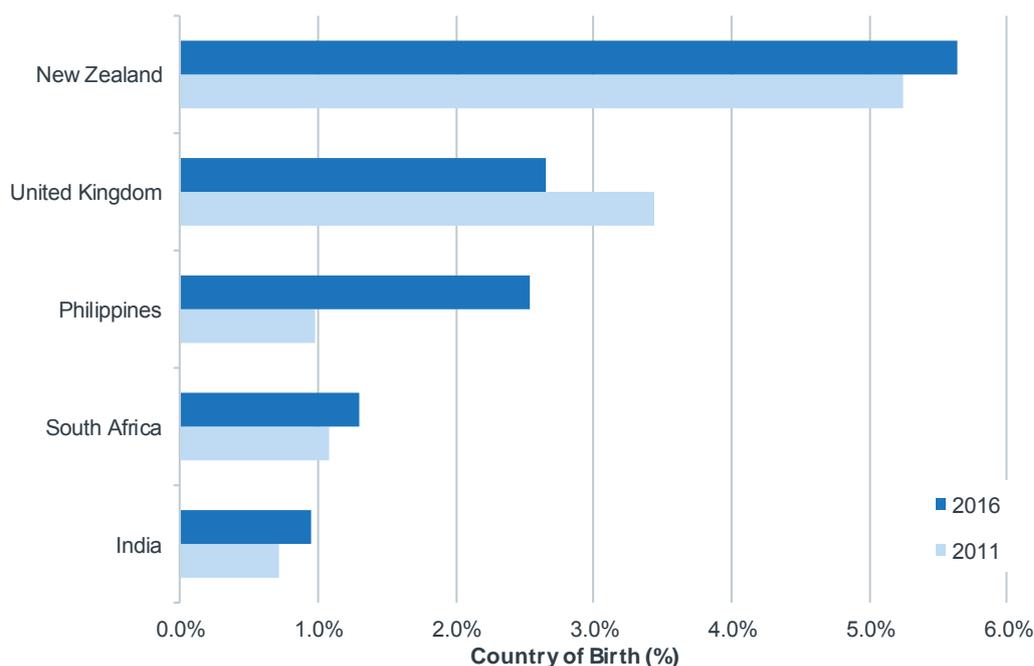
Source: ABS (2016b).

**Table A. 3. Birthplace, Port Hedland, 2011 and 2016**

Birthplace	2011	2016
Overseas	17.5%	20.4%
Australia	61.5%	63.2%
Not Stated	21.0%	16.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016.d).

**Figure A. 1. Top 5 Birth Countries, Excluding Australia, Port Hedland, 2011 and 2016**



Source: Profile.ID (2016d).

**Table A. 4. Languages Spoken at Home, Port Hedland, 2011 and 2016**

Language	2011	2016
English	69.4%	70.1%
Languages other than English	10.1%	14.3%
Not Stated	20.5%	15.6%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016e)

**Table A. 5. Top 5 Languages Spoken at Home, Excluding English, Port Hedland, 2016**

Language	2011	2016
Australian Indigenous Languages	18.2%	17.2%
Filipino/Tagalog	9.2%	16.7%
Malay	19.0%	13.0%
Afrikaans	6.0%	5.1%
Indonesian	4.5%	4.6%
Other	43.1%	43.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016e)

**Table A. 6. Religion, Port Hedland, 2011 and 2016**

Religious Affiliation	2011	2016
Religious	67.3%	59.1%
Non-Religious	32.7%	40.9%
Not Stated	23.6%	17.2%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016f).

**Table A. 7. Top 5 Religious Affiliations, Port Hedland, 2016**

Religion	%
Western (Roman) Catholic	20.7%
Anglican	9.3%
Other Christian Religions	3.2%
Islam	3.2%
Uniting Church	1.9%
Other	61.6%
<b>Total</b>	<b>100.0%</b>

Source: Profile.ID (2016f).

**Table A. 8. Year 12 Completions, Port Hedland, 2011 and 2016**

Year 12 Completions	2011	2016
Proportion	36.3%	41.4%
Number	4,294	4,576

Source: Profile.ID (2016g).

**Table A. 9. Highest Qualification Level, Port Hedland, 2011 and 2016**

Qualification	2011	2016
Bachelor or Higher Degree	10.9%	12.0%
Advanced Diploma or Diploma	6.2%	7.7%
Vocational	24.3%	27.0%
No Qualification	33.9%	34.0%
Not Stated	24.7%	19.3%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016h).

**Table 5.2. Health Outcomes, Port Hedland, 2019**

Health Category	Rate per 100 Population
Fair or Poor Self-Assessed Health (2014-15)	14.0
Type 2 Diabetes (2014-15)	4.7
High Cholesterol (2011-12)	32.8
Mental and Behavioral Problems (2014-15)	19.9
Psychological Distress (2014-15)	11.0
Suicides (2011-15)	0.0
Premature Deaths (2011-15)	0.4

Notes: The rate per 100 population for suicide between 2011 and 2015 was 0.02.

Source: PHIDU (2019).

## DWELLINGS AND HOUSING DEMAND

**Table A. 10. Household/ Family Composition, Port Hedland, 2011 and 2016**

Household/ Family Type	2011	2016
Couples with Children	26.8%	28.2%
Couples Without Children	19.7%	21.2%
One Parent Families	5.9%	6.5%
Other Families	1.3%	0.9%
Group Household	3.9%	2.8%

Household/ Family Type	2011	2016
Lone Person	14.3%	17.6%
Visitor Only Households	15.2%	11.8%
Other Not Classifiable	12.9%	11.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Profile.ID (2016i)

**Table A. 11. Historical and Projected Households, Port Hedland, 2016 to 2041**

Households	2016	2021	2026	2031	2036	2041	Avg. Ann. Growth
Size (Persons Per Household)	2.69	2.64	2.67	2.73	2.76	2.77	0.1%
Number	5,207	5,148	5,537	6,570	7,844	9,299	2.3%

Notes: Household size is represented as an average estimate of persons per households.

Source: Profile.ID (2016j)

**Table A. 12. Historical and Projected Dwellings, Port Hedland, 2016 to 2041**

Dwellings	2016	2021	2026	2031	2036	2041	Avg. Ann. Growth
Number	7,667	7,715	8,080	9,276	10,725	12,305	1.9%
Occupancy Rate	67.9%	66.7%	68.5%	70.8%	73.1%	75.6%	0.4%

Source: Profile.ID (2016j).

**Table A. 13. Dwelling Structure, Port Hedland, 2011 and 2016**

Dwelling Structure	2011	2016
Separate house	62.9%	68.8%
Medium density	22.3%	21.8%
High density	2.3%	3.2%
Caravans, cabin, houseboat	8.7%	4.5%
Other	2.9%	0.9%
Dwelling Structure	0.9%	0.8%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Notes: High density dwellings consist of flats, units or apartments. Medium density dwellings consist of semi-detached, row or terrace houses, townhouses, etc.

Source: Profile.ID (2016k)

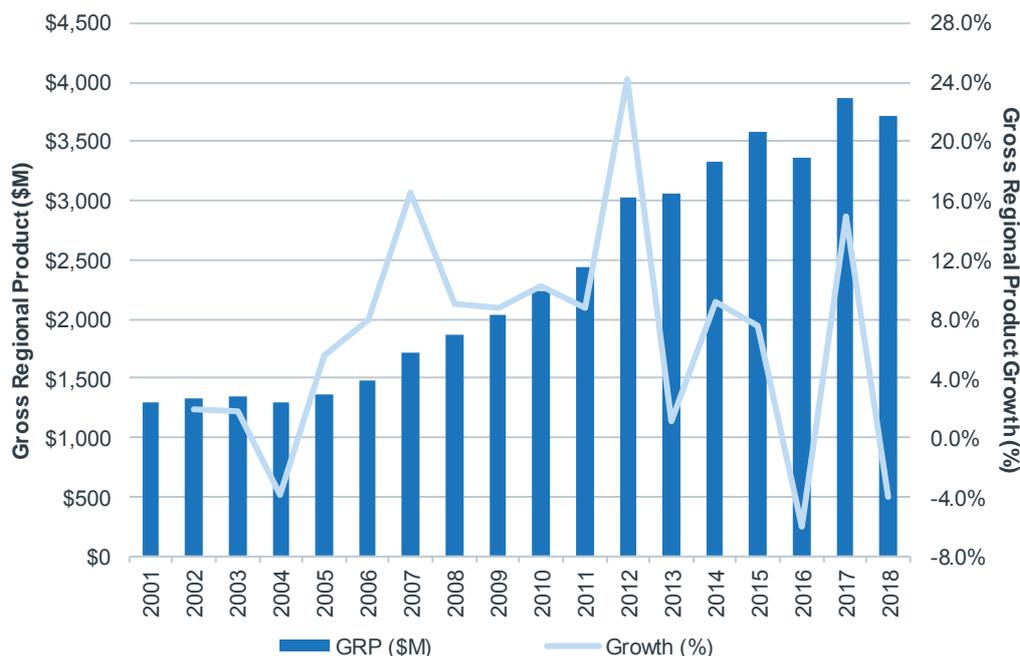
**Table A. 14. Median House Value & Rent, Port Hedland, 2014 and 2018**

Median House Value & Rent (\$)	2014	2018	Avg. Ann. Growth
<b>Value</b>			
House	\$842,126	\$251,458	-26.1%
Unit	\$711,414	\$164,570	-30.6%
<b>Rents</b>			
House	\$1250	\$398	-24.9%
Unit	\$800	\$310	-21.1%

Source: Profile.ID (2016m)

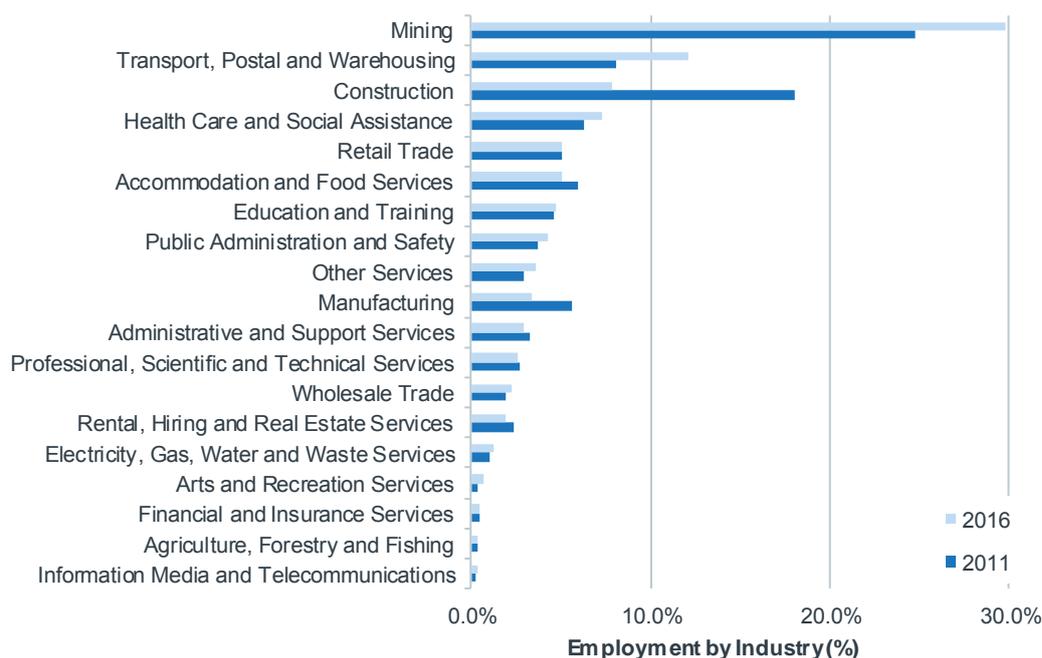
## ECONOMY

**Figure A. 2. Gross Regional Product, Port Hedland, 2001 to 2018**



Source: Economy.ID (2018a)

**Figure A. 3. Employment by Industry (%), Port Hedland, 2011 and 2016, Place of Work**



Source: Economy.ID (2018c).

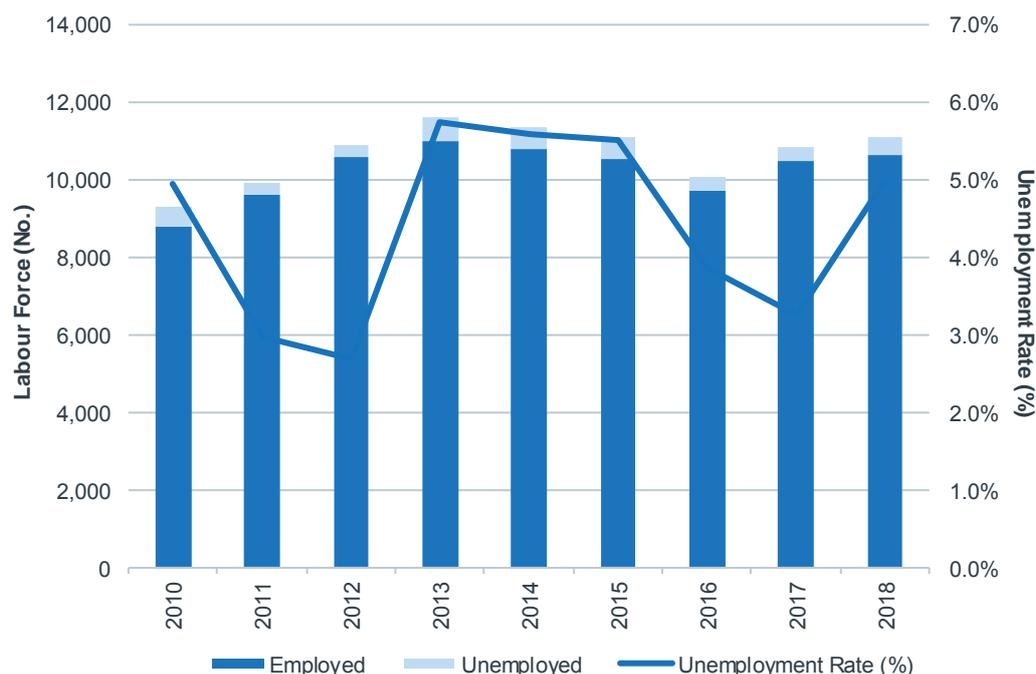
**Table A. 15. Employment by Occupation (%), Port Hedland, 2011 and 2016, Place of Work**

Occupation	2011	2016
Technicians and Trades Workers	26.4%	26.9%
Machinery Operators and Drivers	15.2%	17.5%
Professionals	13.7%	13.5%

Occupation	2011	2016
Labourers	12.7%	10.4%
Clerical and Administrative Workers	11.7%	9.3%
Managers	9.0%	8.5%
Community and Personal Service Workers	5.6%	7.0%
Sales Workers	3.7%	4.8%
Inadequately described or not stated	1.9%	2.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Economy.ID (2018d)

Figure A. 4. Employment & Unemployment, Port Hedland, 2010 to 2018



Source: Economy.ID (2018e).

Table A. 16. Retail Centres Port Hedland

Retail Centre	Nature	Location	Size (sqm)	Number of Shops
South Hedland Square	Convenience and shopping centre anchored by large retailers Coles and Kmart.	9-31 Throssell Rd, South Hedland WA 6722	16,800	45
Port Hedland Boulevard	Shopping centre with major retailers Woolworths and Harvey Norman.	50 Anderson Street, Port Hedland WA 6721	6,247	18

Source: Town of Port Hedland (2019). Real Commercial (2019).

## TOURISM

**Table A. 17. Visitation by Age, Port Hedland, 2018**

Age Group (Years)	Domestic	International
15-19	6.7%	1.0%
20-24	1.8%	12.3%
25-29	14.2%	17.2%
30-34	24.4%	9.7%
35-39	8.1%	10.5%
40-44	11.2%	2.5%
45-49	7.6%	12.9%
50-54	9.6%	6.3%
55+	16.3%	27.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Tourism Research Australia (2019a,b).

**Table A. 18. Visitation by Gender, Port Hedland, 2018**

Source Market	Gender	Port Hedland
Domestic Day	Male	55.8%
	Female	44.2%
Domestic Overnight	Male	90.1%
	Female	9.9%
International	Male	61.5%
	Female	38.5%

Source: Tourism Research Australia (2019a,b).

**Table A. 19. Visitation by Purpose of Visit, Port Hedland, 2008 to 2018**

Purpose	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Avg. Ann. Growth
Holiday	39.8%	23.2%	31.0%	28.0%	33.0%	28.5%	16.7%	19.7%	9.7%	24.3%	27.9%	6.9%
Visiting friends and relatives	10.3%	12.1%	9.8%	10.3%	6.3%	6.9%	9.4%	13.9%	9.6%	9.0%	9.6%	9.9%
Business	48.1%	35.3%	56.5%	50.6%	56.6%	61.2%	68.7%	63.7%	77.9%	57.9%	51.6%	11.5%
Other reason	1.7%	29.2%	1.7%	11.1%	3.4%	3.4%	2.9%	1.1%	1.1%	8.6%	9.8%	31.8%
No other reason	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
In transit	0.0%	0.1%	1.0%	0.0%	0.6%	0.0%	2.2%	1.6%	1.7%	0.2%	1.1%	53.0%
<b>Total</b>	<b>100.0%</b>	-										

Source: Tourism Research Australia (2019a,b).

**Table A. 20. Visitation by Activity, 2008 to 2018<sup>(a)(b)(c)</sup>**

Activity	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Avg. Ann. Growth
<b>Domestic</b>												
Outdoor/nature	26.4%	25.5%	10.4%	13.3%	9.9%	12.6%	6.6%	2.0%	4.9%	3.7%	15.8%	6.0%
Active outdoor/sports	3.2%	8.2%	6.4%	7.9%	9.6%	6.4%	12.0%	9.8%	6.9%	9.8%	20.3%	34.4%
Arts/heritage	10.1%	2.8%	4.0%	5.0%	0.4%	1.9%	0.0%	3.4%	3.6%	1.5%	3.0%	-1.3%
Local attractions/tourist activities	7.0%	0.7%	1.4%	1.7%	0.0%	3.4%	6.4%	3.4%	1.7%	2.5%	3.6%	4.3%
Social activities	56.0%	55.5%	42.5%	48.8%	35.9%	48.1%	42.8%	70.5%	61.9%	40.3%	37.4%	7.2%
Other activities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%
<b>International</b>												
Outdoor/nature	92.1%	88.1%	82.9%	78.7%	78.0%	79.7%	72.4%	75.8%	77.0%	79.7%	76.1%	0.5%
Active outdoor/sports	76.3%	72.8%	62.7%	54.2%	65.2%	64.2%	48.0%	54.1%	52.5%	48.9%	64.6%	0.8%
Arts/heritage	77.5%	67.9%	70.1%	55.9%	55.7%	59.8%	54.4%	53.4%	69.9%	59.3%	53.2%	-1.4%
Local attractions/tourist activities	68.5%	46.1%	46.9%	46.2%	48.1%	42.7%	29.6%	26.7%	41.7%	44.5%	42.1%	-2.4%
Social activities	80.1%	81.9%	69.9%	63.5%	68.3%	76.0%	67.5%	63.1%	76.0%	75.8%	78.6%	2.2%
Other activities	94.9%	97.0%	94.0%	95.5%	98.7%	94.7%	93.4%	91.1%	98.3%	93.7%	98.7%	2.8%

Notes: (a) Domestic visitation is based off stopover activity within Port Hedland, whilst international activity is based on any activities undertaken on their trip (could include other areas). (b) Represented as a proportion of total visitors each year for each catchment/SA2. (c) May not sum up to 100%, as visitors can pick more than one activity during their trip.

Source: Tourism Research Australia (2019a,b).

**Table A. 21. Visitor Expenditure, Port Hedland, 2018**

LGA	International	Domestic Overnight	Domestic Day
Port Hedland	\$8.56	\$147.30	np

Source: Tourism Research Australia (2019c).

**Table A. 22. Accommodation Profile, Port Hedland, 2008 to 2018**

Accommodation	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Hotels and similar accommodation	46.6%	23.5%	28.3%	31.6%	25.8%	31.5%	16.9%	41.0%	29.5%	22.3%	17.9%
Other commercial accommodation	25.7%	29.3%	28.3%	15.6%	29.2%	11.6%	20.7%	8.3%	14.3%	14.9%	13.2%
Own property	0.0%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other Private Accommodation	27.7%	38.8%	26.5%	51.8%	44.3%	56.7%	62.4%	25.9%	30.0%	23.3%	26.9%
Other Accommodation	0.0%	8.4%	11.4%	1.0%	0.7%	0.2%	0.0%	24.8%	26.2%	39.6%	41.9%
<b>Total</b>	<b>100.0%</b>										

Notes: Represented as a proportion of total visitors.

Source: Tourism Research Australia (2019a, b).

**Table A. 23. Domestic Average Length of Stay (Nights), Port Hedland, 2008 to 2018**

Area	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average
Port Hedland	5	4	7	5	7	12	7	6	6	7	6	7
Karratha	7	7	8	9	7	7	7	7	7	7	7	7
Regional WA	5	4	5	5	5	5	5	5	5	5	5	5

Note: Length of stay may fluctuate greatly between years due to smaller size of region and small sample size during data collection.

Source: Tourism Research Australia (2019a, b).

**Table A. 24. International Average Length of Stay (Nights), Port Hedland, 2008 to 2018**

Area	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Average
Port Hedland	6	26	12	14	28	32	23	14	16	13	5	17
Karratha	19	20	27	30	44	36	36	29	25	26	22	29
Regional WA	21	21	22	23	29	26	26	22	20	19	16	22

Note: Length of stay may fluctuate greatly between years due to smaller size of region and small sample size during data collection.

Source: Tourism Research Australia (2019a, b).

**Table A. 25. Tourism Products, Port Hedland**

Tourism Product Type	Name	Description
Attractions/ Recreation/ Cultural Locations	Cape Keraudren Nature Reserve	This coastal reserve is located 179km north of Port Hedland, offering fishing, crabbing and camping activities.
	Pretty Pool	Located just off the coast of Port Hedland, this beach offers a perfect place to relax and swim, with a picnic area and BBQ facilities nearby.
	Cemetery Beach Park	Cemetery Beach Park overlooks the Indian Ocean just off the coast of Port Hedland and is a popular beach for turtle nesting. The park features a playground, toilets and a large open grassy space.
	Port Hedland Courthouse Gallery	The Courthouse Gallery is situated in the heart of Port Hedland, offering exciting exhibitions, inspiring workshops and the ultimate retail experience.
	Dalgety House Museum	Dalgety House Museum provides an opportunity to gain an insight into the impact that white settlement had on the Kariyarra Aboriginal people of the Pilbara. Exhibits include an extensive collection of artefacts & documentation and photographs.
	Koombana Lookout Port Hedland	Located in Port Hedland, this lookout provides views of the ocean, wildlife and Port activity.
	Redbank Bridge Lookout	This lookout is a viewpoint in Port Hedland for the Redbank pink-tinted mountains of salt and cargo trains.
	Port Hedland Boulevard	Located in Port Hedland, this fully enclosed and air-conditioned centre is anchored by Woolworths, Harvey Norman and 16 other specialty stores.
	Cooke Point Viewing Platform	This viewing platform is located on the coastline of Port Hedland, offering oceanic views, particularly popular at sunset.
	Cultural & Heritage Trail	Offers a self or guided tour around the West End to historic sites and buildings, which tell a story of the early Hedland days and the characters which helped build the town.
Karijini National Park	Karijini National Park offers spectacular rugged scenery, ancient geological formations, a variety of arid-land ecosystems and a range of recreational experiences. It can be entered from Port Hedland.	
Events	Port Hedland Cup	The Port Hedland Cup has taken place for over 100 years, involving internationally renowned trainers, champion jockeys and world-class racehorses from all over Australia and internationally.
	Pilbara Music Festival	This music festival showcases local musical performance and drama performance talent from both Port Hedland and Karratha.
Commercial Facilities	Spoilbank Marina Waterfront	This Marina is still in the development phase, planned to accommodate 100-150 boat pens, a two-lane boat ramp, plenty of vehicle parking, opportunities for commercial operations, food and beverage sites and a proposed cultural and community centre.
	Wanangkura Stadium	This stadium is Port Hedland's premier sporting facility for social sports, team programs, group fitness and events.
	Don Rhodes Mining Museum	The Don Rhodes Mining and Transport Museum is a public park in Port Hedland, with an open-air display of retired mining machinery and railway rolling stock.
	Spinifex Hill Studios	This studio is the newest art centre in the Pilbara, supporting over 100 artists from eight language groups.

Source: Port Tourist Park (2019).

## APPENDIX B: COMPARATIVE PROFILE DETAILS

### POPULATION AND DEMOGRAPHICS

**Table B. 1. Indigenous Population, Comparison Regions, 2016**

Area	Indigenous Population (%)
<b>Port Hedland</b>	
Indigenous	19.1%
Non-Indigenous	80.9%
<b>Karratha</b>	
Indigenous	14.5%
Non-Indigenous	85.5%
<b>Regional WA</b>	
Indigenous	8.1%
Non-Indigenous	91.9%

Source: ABS (2017a).

**Table B. 2. Population by Age, Comparison Regions, 2018**

Age Group (Years)	Port Hedland	Karratha	Regional WA
0-4	10.2%	9.6%	6.6%
5-9	9.0%	9.0%	6.9%
10-14	6.0%	7.2%	6.7%
15-19	4.8%	5.4%	5.9%
20-24	4.9%	4.9%	4.9%
25-29	9.6%	8.7%	6.0%
30-34	11.8%	11.6%	6.9%
35-39	9.2%	10.0%	6.6%
40-44	7.3%	8.5%	6.4%
45-49	7.3%	7.7%	7.1%
50-54	6.7%	6.1%	6.7%
55-59	5.7%	5.1%	6.9%
60-64	3.5%	2.9%	6.2%
65-69	1.9%	1.8%	5.4%
70-74	1.0%	0.8%	4.4%
75-79	0.6%	0.5%	3.0%
80-84	0.2%	0.2%	1.9%
85 and over	0.3%	0.2%	1.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: ABS (2018d).

**Table B. 3. Population by Sex, Comparison Regions, 2018**

Area	Males	Females
Port Hedland	52.7%	47.3%
Karratha	55.1%	44.9%
Regional WA	50.7%	49.3%

Source: ABS (2018d).

**Table B. 4. Year 12 Completions, Comparison Regions, 2016**

Area	Completed Year 12	Have not Completed Year 12	Total
Port Hedland	50.8%	49.2%	100.0%
Karratha	53.2%	46.8%	100.0%
Regional WA	44.3%	55.7%	100.0%

Source: ABS (2017a).

**Table B. 5. Top Five Countries of Birth, Comparison Regions, 2016**

Country of Birth	Port Hedland	Karratha	Regional WA
Australia	75.5%	76.5%	78.9%
New Zealand	6.7%	5.8%	3.8%
Maritime South-East Asia	4.3%	3.6%	1.8%
United Kingdom, Channel Islands and Isle of Man	3.2%	4.1%	7.8%
Southern and East Africa	2.9%	2.2%	1.9%
Southern Asia	1.9%	2.0%	0.9%
Other	5.5%	5.9%	4.9%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: ABS (2017a).

**Table B. 6. Languages Spoken at Home, Comparison Regions, 2016**

Languages Spoken at Home	Port Hedland	Karratha	Regional WA
English	83.2%	86.0%	91.4%
Malay	2.0%	0.1%	0.2%
Tagalog	1.6%	1.5%	0.6%
Filipino	1.0%	1.1%	0.5%
Nyangumarta	1.0%	0.0%	0.0%

Source: ABS (2017a).

**Table B. 7. Religious Affiliation, Comparison Regions, 2016**

Religious Affiliation	Port Hedland	Karratha	Regional WA
Secular Beliefs, Other Spiritual Beliefs and No Religious Affiliation	41.3%	42.1%	39.0%
Christianity	51.3%	53.0%	58.1%
Islam	3.9%	0.9%	0.6%
Buddhism	1.6%	1.9%	1.1%
Hinduism	1.1%	1.4%	0.4%
Other	0.9%	0.7%	0.7%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: ABS (2017a).

**Table B. 8. Non School Qualifications, Comparison Regions, 2016**

Area	Postgraduate	Graduate Diploma & Certificate	Bachelor Degree	Advanced Diploma and Diploma	Certificate	Not Applicable <sup>(a)</sup>	Total
Port Hedland	1.7%	1.6%	9.8%	8.2%	28.8%	49.8%	<b>100.0%</b>
Karratha	2.1%	1.3%	10.9%	8.1%	28.2%	49.5%	<b>100.0%</b>
Regional WA	1.5%	1.4%	9.4%	7.9%	25.6%	54.2%	<b>100.0%</b>

Notes: (a) Those included in this category are persons who have a qualification that is out of scope of this classification, persons with no qualifications, persons still studying for the first qualification and persons aged under 15 years.

Source: ABS (2017a).

**Table B. 9. Health Outcomes (Rate per 100 Population), Comparison Regions, 2019**

Health Category	Port Hedland	Karratha	Regional WA
Fair or Poor Self-Assessed Health (2014-15)	14.0	13.3	14.6
Type 2 Diabetes (2014-15)	4.7	4.6	4.7
High Cholesterol (2011-12)	32.8	34.0	35.6
Mental and Behavioral Problems (2014-15)	19.9	16.0	16.5
Psychological Distress (2014-15)	11.0	10.4	9.8
Suicides (2011-15)	0.0	0.0	0.0
Premature Deaths (2011-15)	0.4	0.3	0.1

Note: The rate per 100 population for suicide in 2011 to 2015 was 0.02 for Port Hedland, 0.01 for Karratha and 0.02 for Regional WA.

Source: PHIDU (2019)

## DWELLINGS AND HOUSING DEMAND

**Table B. 10. Dwelling Structure, Comparison Regions, 2016**

Area	Separate House	Semi-detached, row or terrace house, townhouse, flat or apartment	Cabin, houseboat, caravan	Improvised home, tent, sleepers out	House or flat attached to a shop, office, etc.
Port Hedland	69.4%	25.2%	4.5%	0.8%	0.1%
Karratha	73.1%	21.3%	4.8%	0.6%	0.1%
Regional WA	82.9%	11.4%	4.5%	0.9%	0.3%

Note: Semi-detached and flat or apartment categories have been summed together due to coding discrepancies between 2011 and 2016.  
Source: ABS (2017c).

**Table B. 11. Household Composition, Comparison Regions, 2016**

Area	One family household	Two family household	Three or more family household	Lone person household	Group household	Visitors only	Other non-classifiable	Total
Port Hedland	55.6%	1.2%	0.1%	17.6%	2.8%	11.0%	11.8%	<b>100.0%</b>
Karratha	61.0%	1.2%	0.1%	16.3%	2.9%	10.3%	8.3%	<b>100.0%</b>
Regional WA	61.2%	1.1%	0.1%	22.2%	2.5%	6.5%	6.4%	<b>100.0%</b>

Source: ABS (2017a).

**Table B. 12. Family Composition, Comparison Regions, 2016**

Area	Couple family with children	Couple family with no children	One parent family with children	One parent family with no children	Other family	Total
Port Hedland	41.6%	44.8%	8.0%	4.0%	1.6%	<b>100.0%</b>
Karratha	46.1%	41.5%	7.5%	3.6%	1.4%	<b>100.0%</b>
Regional WA	30.5%	53.5%	8.9%	5.9%	1.2%	<b>100.0%</b>

Source: ABS (2017a)

**Table B. 13. Mortgage Stress (%), Comparison Regions, 2016**

Area	Households in Mortgage Stress (%)
Port Hedland	4.9%
Karratha	3.7%
Regional WA	10.2%

Notes: Mortgage and rental stress is defined as low income households (bottom 40% of income distribution) who spend more than 30% of income on mortgage (or rent) repayments, as a proportion of mortgaged (or rented) private dwellings  
Source: PHIDU (2017).

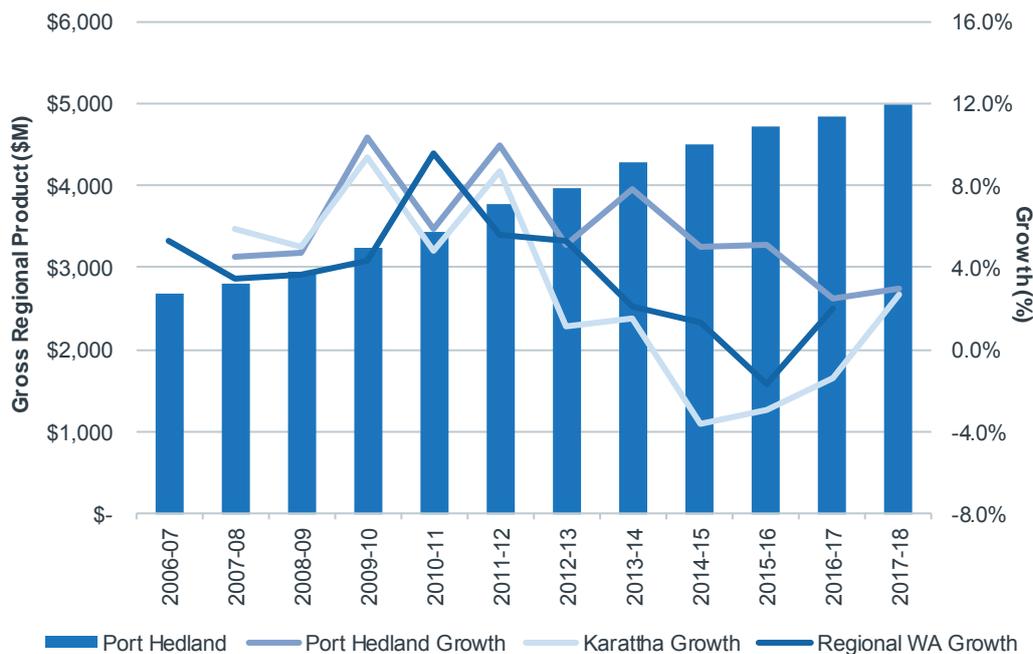
**Table B. 14. Rental Stress, Comparison Regions, 2016**

Area	Households in Rental Stress (%)
Port Hedland	5.9%
Karratha	6.3%
Regional WA	23.5%

Notes: Mortgage and rental stress is defined as low income households (bottom 40% of income distribution) who spend more than 30% of income on mortgage (or rent) repayments, as a proportion of mortgaged (or rented) private dwellings  
Source: PHIDU (2017).

## ECONOMY

**Figure B. 1. Gross Regional Product, Comparison Regions, 2006-07 to 2017-18**



Source: AEC (unpublished a).

**Table B. 15. Employment by Industry (PoW), Comparison Regions, 2017-18**

Industry	Port Hedland	Karratha	Regional WA
Mining	36.9%	29.2%	18.2%
Transport, postal and warehousing	11.8%	5.5%	4.2%
Construction	8.8%	9.1%	10.7%
Health care and social assistance	7.7%	3.8%	9.3%
Retail trade	5.4%	4.3%	8.5%
Accommodation and food services	5.2%	4.0%	6.8%
Education and training	4.9%	4.7%	8.1%
Public administration and safety	4.4%	4.4%	4.9%
Administrative and support services	3.8%	4.4%	3.2%
Other services	3.8%	2.5%	3.5%
Manufacturing	3.5%	2.5%	5.2%
Professional, scientific and technical services	3.2%	3.1%	3.5%
Wholesale trade	2.0%	1.3%	1.7%
Rental, hiring and real estate services	1.9%	1.8%	1.4%
Electricity, gas, water and waste services	1.5%	1.8%	1.3%
Arts and recreation services	0.9%	0.6%	1.1%
Financial and insurance services	0.4%	0.3%	1.0%
Information media and telecommunications	0.3%	0.3%	0.5%
Agriculture, forestry and fishing	0.2%	0.1%	7.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: ABS (2017a).

**Figure B. 2. Historical Unemployment Rate, Comparison Regions, 2006 to 2018**



Note: The unemployment rates above represent an average of the quarters in each year.  
 Source: Department of Jobs and Small Business (2019)

**Table B. 16. Employment by Occupation (PoW), Comparison Regions, 2016**

Occupation	Port Hedland	Karratha	Regional WA
Technicians and Trades Workers	28.4%	28.8%	16.5%
Machinery Operators and Drivers	18.1%	13.5%	7.7%
Professionals	13.3%	14.8%	20.9%
Labourers	11.1%	12.0%	9.8%
Clerical and Administrative Workers	9.1%	9.9%	13.5%
Managers	8.4%	9.0%	11.9%
Community and Personal Service Workers	6.9%	7.3%	10.7%
Sales Workers	4.7%	4.7%	9.0%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: AEC (2017a).

## TOURISM

**Table B. 17. Historical Visitation Growth, Comparison Regions, 2008 to 2018**

Area	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<b>Domestic</b>										
Port Hedland	27.0%	-25.7%	18.2%	1.4%	-10.0%	45.2%	76.2%	5.6%	-19.7%	27.0%
Karratha	16.1%	17.7%	-23.0%	-5.6%	16.5%	71.8%	19.0%	-1.4%	-18.3%	16.1%
Regional WA	-6.4%	3.4%	6.7%	11.4%	0.8%	44.7%	0.6%	-1.4%	-7.1%	-6.4%
<b>International</b>										
Port Hedland	11.0%	-9.1%	1.7%	-4.1%	6.1%	33.4%	-14.2%	25.3%	-44.3%	52.6%
Karratha	-6.1%	9.6%	27.1%	-15.5%	-13.4%	-17.0%	37.6%	-18.4%	-5.0%	1.5%
Regional WA	-0.8%	8.2%	6.1%	-7.6%	6.0%	-0.3%	18.1%	8.7%	-12.2%	18.2%

Note: Visitation may fluctuate greatly between years due to the small size of region and small sample size during data collection.  
Source: Tourism Research Australia (2019a,b)

**Table B. 18. Projected Visitation, Comparison Regions, 2019 to 2027**

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Visitation</b>									
Port Hedland	161,583	167,186	172,803	178,431	184,068	189,779	195,566	201,427	207,363
Karratha	197,927	204,790	211,670	218,564	225,469	232,465	239,553	246,733	254,004
Regional WA	6,040,667	6,250,140	6,460,106	6,670,503	6,881,231	7,094,758	7,311,085	7,530,208	7,752,118
<b>Growth</b>									
All	-	3.5%	3.4%	3.3%	3.2%	3.1%	3.0%	3.0%	2.9%

Note: Visitation projections have been estimated using Tourism Research Australia visitor night projections for Regional WA. Visitor night statistics were collected for 2018, to which visitor night growth projections were applied. These visitor night projections were converted to visitor projections by assuming the average length of stay of visitors was held constant over the estimation period (2019 to 2027).  
Source: Tourism Research Australia (2019d).

**Table B. 19. Projected International Visitation, Comparison Regions, 2019 to 2027**

Area	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Visitation</b>									
Port Hedland	4,288	4,482	4,674	4,877	5,086	5,302	5,527	5,760	6,003
Karratha	18,720	19,568	20,405	21,290	22,202	23,147	24,127	25,147	26,205
Regional WA	321,158	335,712	350,068	365,257	380,911	397,121	413,935	431,426	449,583
<b>Growth</b>									
Port Hedland	-	4.5%	4.3%	4.3%	4.3%	4.3%	4.2%	4.2%	4.2%
Karratha	-	4.5%	4.3%	4.3%	4.3%	4.3%	4.2%	4.2%	4.2%
Regional WA	-	4.5%	4.3%	4.3%	4.3%	4.3%	4.2%	4.2%	4.2%

Note: Visitation projections have been estimated using Tourism Research Australia visitor night projections for Regional WA. Visitor night statistics were collected for 2018, to which visitor night growth projections were applied. These visitor night projections were converted to visitor projections by assuming the average length of stay of visitors was held constant over the estimation period (2019 to 2027).  
Source: Tourism Research Australia (2019d).

**Table B. 20. Domestic Overnight Average Length of Stay, Comparison Regions, Average**

Area	Domestic Overnight	International
Port Hedland	7	17
Karratha	7	29
Regional WA	5	22

Note: Average length of stay may fluctuate greatly between years due to the small size of region and small sample size during data collection.  
Source: Tourism Research Australia (2019a,b).

**Table B. 21. Visitation by Age, Comparison Regions, 2018**

Age	Port Hedland	Karratha LGA	Regional WA
<b>Domestic</b>			
15-19	6.7%	0.0%	5.8%
20-24	1.8%	1.4%	2.9%
25-29	14.2%	4.7%	1.6%
30-34	24.4%	24.3%	19.4%
35-39	8.1%	6.3%	6.7%
40-44	11.2%	6.4%	5.7%
45-49	7.6%	16.3%	16.5%
50-54	9.6%	16.8%	20.0%
55+	16.3%	23.9%	21.4%
<b>International</b>			
15-19	1.0%	2.7%	2.2%
20-24	12.3%	5.6%	7.9%
25-29	17.2%	16.3%	13.9%
30-34	9.7%	17.5%	9.9%
35-39	10.5%	10.6%	7.7%
40-44	2.5%	4.4%	6.3%
45-49	12.9%	7.9%	7.5%
50-54	6.3%	8.6%	8.6%
55+	27.7%	26.5%	35.8%

Source: Tourism Research Australia (2019a,b).

**Table B. 22. Visitation by Gender, Comparison Regions, 2018**

Gender	Port Hedland	Karratha LGA	Regional WA
<b>Domestic</b>			
Male	78.5%	83.2%	55.8%
Female	21.5%	16.8%	44.2%
<b>International</b>			
Male	61.5%	63.5%	47.9%
Female	38.5%	36.5%	52.1%

Source: Tourism Research Australia (2019a,b).

**Table B. 23. Visitation by Purpose of Visit, Comparison Regions, 2018**

Purpose	Port Hedland	Karratha	Regional WA
Holiday	27.9%	39.5%	53.3%
Visiting friends and relatives	9.6%	8.9%	21.2%
Business	51.6%	41.0%	18.9%
Other reason	9.8%	10.0%	6.3%
No other reason	0.0%	0.0%	0.0%
In transit	1.1%	0.6%	0.3%

Source: Tourism Research Australia (2019a,b).

**Table B. 24. Visitation by Activity, 2018<sup>(a)(b)(c)</sup>**

Activity	Port Hedland	Karratha	Regional WA
<b>Domestic</b>			
Outdoor/nature	15.8%	23.8%	40.5%
Active outdoor/sports	20.3%	12.7%	25.8%
Arts/heritage	3.0%	8.4%	11.3%
Local attractions/tourist activities	3.6%	1.5%	15.0%
Social activities	37.4%	62.1%	74.6%
Other activities	0.0%	0.6%	1.1%
<b>International</b>			
Outdoor/nature	76.1%	73.0%	87.2%
Active outdoor/sports	64.6%	44.6%	44.4%
Arts/heritage	53.2%	42.2%	57.9%
Indigenous Culture Activities	42.1%	42.6%	22.3%
Local attractions/tourist activities	78.6%	54.4%	80.5%
Social activities	98.7%	99.0%	98.0%
Other activities	0.0%	0.0%	0.0%

Notes: (a) Domestic visitation is based off stopover activity within Port Hedland, whilst international activity is based on any activities undertaken on their trip (could include other areas). (b) Represented as a proportion of total visitors each year for each catchment/SA2. (c) May not sum up to 100%, as visitors can pick more than one activity during their trip.

Source: Tourism Research Australia (2019a,b).

**Table B. 25. Visitor Expenditure, Comparison Regions, 2018**

LGA	International	Domestic Overnight	Domestic Day
Port Hedland	\$8.56	\$147.30	np
Karratha	\$13.97	\$210.36	\$31.00

Source: Tourism Research Australia (2019c).

**Table B. 26. Visitor Accommodation, Comparison Regions, 2018**

Accommodation	Port Hedland	Karratha	Regional WA
Hotels and similar accommodation	17.9%	13.4%	35.1%
Other commercial accommodation	13.2%	16.2%	37.6%
Own property	0.0%	0.0%	6.5%
Other Private Accommodation	26.9%	38.0%	69.9%
Other Accommodation	41.9%	32.4%	16.5%

Notes: Represented as a proportion of total visitors.  
 Source: Tourism Research Australia (2019a, b).

## APPENDIX C: COMPETITIVE ASSESSMENT

This section outlines the strengths and potential opportunities for Port Hedland in relation to labour specialisations, growth opportunities in specific industry sectors, opportunities for import replacement and macroeconomic trend influences.

### INCLUDING DIRECT MINING EMPLOYMENT

#### Location Quotients

To demonstrate the specialisation of the economy, location quotients based on employment have been calculated. The location quotients demonstrate the degree to which a local or regional economy is specialised by examining the proportion of employment (by industry sub-sector) compared to a larger economy (Australian economy). Location quotients can be used to indicate strengths and weaknesses of a local or regional economy (i.e. identify its natural competitive advantage).

For this project, the analysis has compared the Port Hedland economy with that of the comparison region of Western Australia (both compared to Australia). A location quotient of “1” means that Port Hedland has an equal share of employment (compared to the Australia) for a specific industry sector, thus no potential advantage either way. A location quotient above “1” indicates a specialisation of labour and therefore an area of potential competitive advantage. If the location quotient is below “1”, the area has a weakness in this particular industry sector.

Mining has a strong presence in Port Hedland, representing 31.6% of total industry employment. As a result, location quotient analysis including the mining sector, may not provide a comprehensive analysis of other industries. To provide a more comprehensive analysis of opportunities for economic diversification of the region, two investigations have been conducted, one which analyses the economy including direct mining employment and one where it is excluded. It is noted that due to supply chains within the economy, the local resources sector has significant implications for other industries within the economy. No accounting for these implications has been considered in this analysis.

Location Quotient analysis indicates Port Hedland has labour specialisations in the industries of:

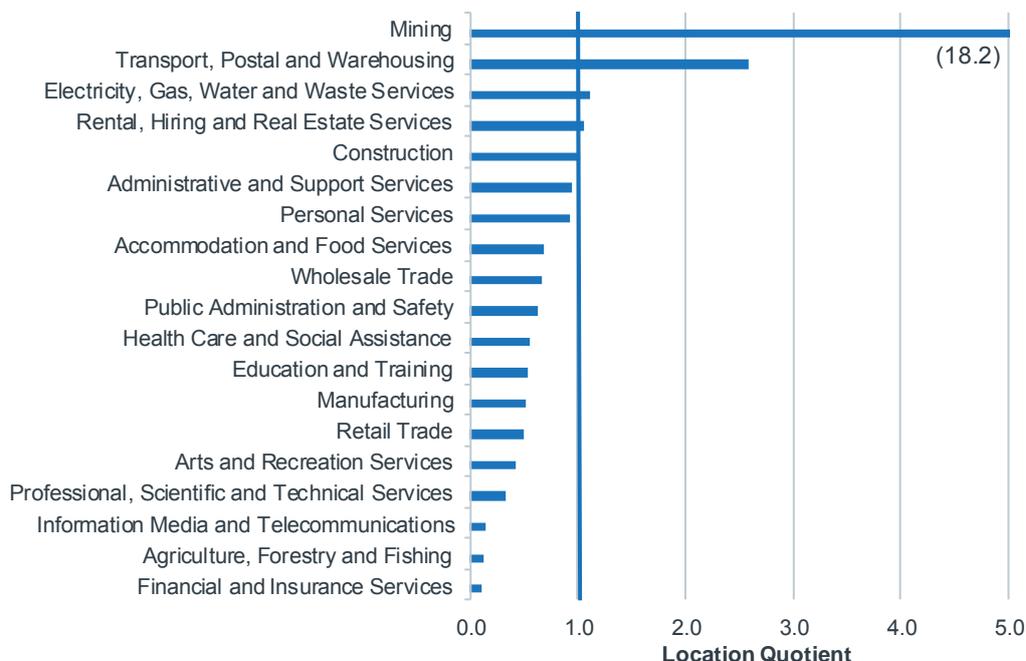
- Mining (LQ = 18.2): Mining has a strong presence in Port Hedland’s economy and has enabled the sector to develop its supply chain with labour specialisations in transport, postal and warehousing and a level of associated activity in manufacturing, particularly in the 2-Digit industries of fabricated metal product manufacturing (LQ = 4.1) and petroleum and coal product manufacturing (LQ = 1.4).
- Transport, Postal and Warehousing (LQ = 2.6): As part of the mining supply chain, the 2 -Digit industry of water transport (LQ = 6.4) has strong labour specialisations due to the significant iron ore exports through the Port of Port Hedland.
- Electricity, Gas, Water and Waste Services (LQ = 1.1): Labour specialisations are particularly evident in the 2-Digit industry of waste collection, treatment and disposal services (LQ = 1.9).
- Rental, Hiring and Real Estate Services (LQ = 1.1): Labour specialisation here is driven by the 2-Digit industry of rental and hiring (LQ = 2.6).

However, the region is comparatively lacking in some industries in terms of labour specialisation which stem from mining or can contribute to a more diversified economic base, in particular:

- Manufacturing (LQ = 0.5): Iron ore mining can be used with a variety of other elements in both the construction and manufacturing industries, particularly in the manufacturing of motor vehicles, ships, trucks, pipelines, train and railway track components. Port Hedland has minimal labour specialisation in the 3-Digit industries of motor vehicle and part manufacturing (LQ = 0.5), other transport equipment manufacturing (LQ = 0.7) and structural metal product manufacturing (LQ = 0.4). However, this is on par with Australia, as most motor vehicle manufacturing is carried out in Japan, Thailand and Korea.

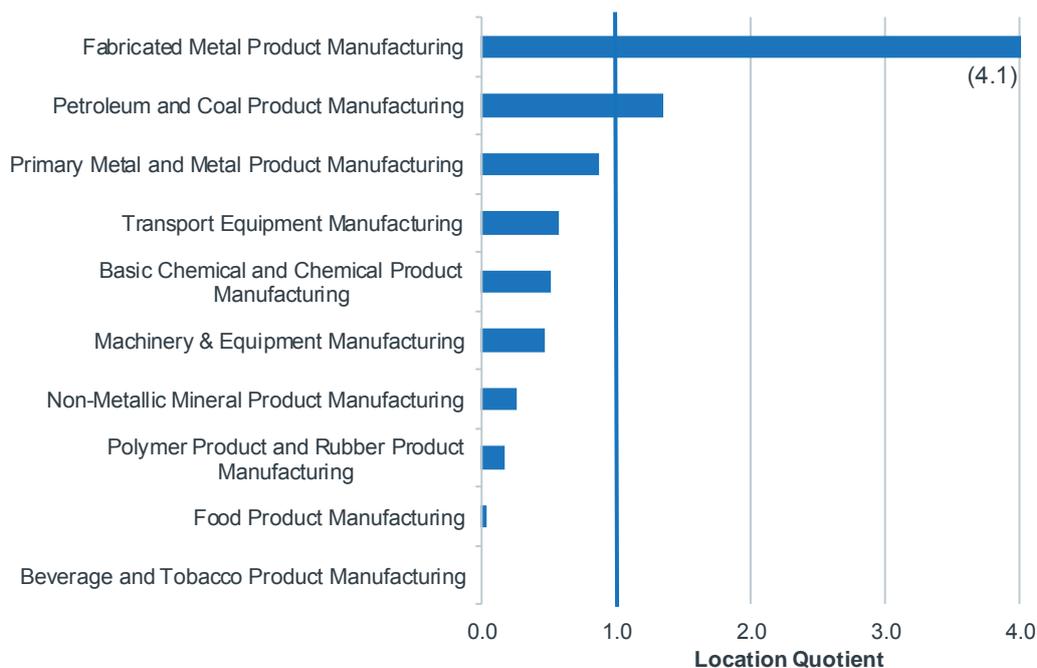
- Education and Training (LQ = 0.5): Education and research is vital for growth and innovation, particularly important for Port Hedland as a first step towards diversifying the industry base.
- Healthcare and Social Assistance (LQ = 0.6): Hospitals, residential care services and social assistance services generally increase over time as population grows.
- Professional, Scientific and Technical Services (LQ = 0.3): This is fairly standard for a regional area.

**Figure A. 5. Location Quotients, Port Hedland, 1 Digit ANZSIC, 2016**



Source: ABS (2017a)

**Figure A. 6. Location Quotients, Port Hedland, 2 Digit Manufacturing, 2016**



Source: ABS (2017a).

## Cluster Mapping

Cluster mapping builds on the location quotient analysis by portraying the regional location quotients against Western Australia industry estimated employment growth over time (from 2017-18 to 2030-31). By incorporating industry growth, cluster mapping allows for the identification of growth opportunities in specific industry sectors, where a natural competitive advantage already exists against a backdrop of an expanding/ growing sector State-wide.

Industry clusters located above the “1” on the vertical axis indicate an existing industry concentration (strength or competitive advantage, as discussed previously) within the region being examined. The Western Australia industry average annual employment growth estimate for 2017-18 to 2030-31 (AEC, unpublished b) is plotted along the horizontal axis, with 0% average annual growth over the period creating a midline. The further to the right of this central horizontal axis, the faster the industry is expected to expand. Similarly, the farther to the left of the zero percent midline, the faster it is expected to shed jobs during this period. The size of the cluster (circle) in the map demonstrates the size of the local workforce in that industry sector locally.

Industries which are located in the Well-Represented/High Growth section of the cluster map are industries which benefit from local labour specialisation (i.e., an LQ above 1.0) and are anticipated to experience strong (above average) average annual employment growth in Western Australia. These sectors should be pursued for economic development activities, as they are likely to experience significant growth in coming years. The industries located in this section for Port Hedland are:

- Mining (LQ = 18.2, Growth Expectation = 2.0%)
- Transport, Postal and Warehousing (LQ = 2.6, Growth Expectation = 1.2%)
- Construction (LQ = 1.0, Growth Expectation = 1.8%)
- Rental, Hiring and Real Estate Services (LQ = 1.1, Growth Expectation = 1.2%).

Industries which are located in the Under-Represented/High Growth section of the cluster map are industries which don't benefit from local labour specialisation (i.e., an LQ below 1.0) but are anticipated to experience strong (above average) average annual employment growth in Western Australia between 2018 and 2031. These sectors should be investigated further, where appropriate, to determine their potential to be targeted for economic development activities as they are may perform well in the coming years if local supply chains and support are available. Industries located in this section for Port Hedland are:

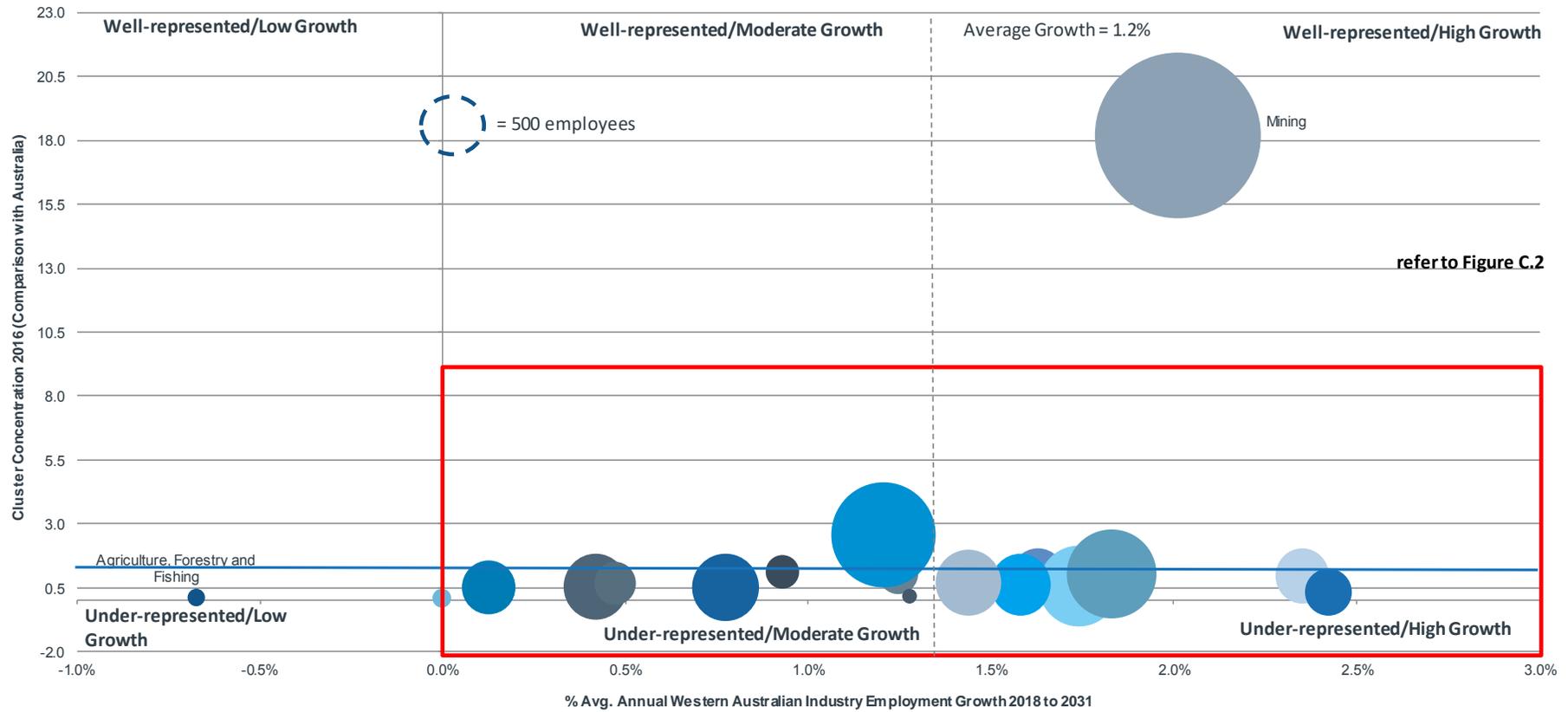
- Administrative and Support Services (LQ = 1.0, Growth Expectation = 2.4%)
- Professional, Scientific and Technical Services (LQ = 0.3, Growth Expectation = 2.4%)
- Personal Services (LQ = 0.9, Growth Expectation = 1.6%)
- Health Care and Social Assistance (LQ = 0.6, Growth Expectation = 1.7%)
- Public Administration and Safety (LQ = 0.6, Growth Expectation = 1.6%)
- Accommodation and Food Services (LQ = 0.7, Growth Expectation = 1.4%)
- Arts and Recreation Services (LQ = 0.4, Growth Expectation = 1.6%)
- Information Media and Telecommunications (LQ = 0.1, Growth Expectation = 1.3%).

Industries which are located in the Well-Represented/Moderate Growth section of the cluster map are industries which benefit from local labour specialisation (i.e., an LQ above 1.0) and are anticipated to experience positive, but below average, average annual employment growth in Western Australia. These sectors could be considered for economic development activities, particularly if they are interconnected with strong-growth sectors of the economy. The only industry located in this section for Port Hedland is Electricity, Gas, Water and Waste Services (LQ = 1.1, Growth Expectation = 0.9%).

Industries which are located in the Under-Represented/Moderate Growth section of the cluster map are industries which do not currently benefit from local labour specialisation (i.e., an LQ below 1.0) but are anticipated to experience positive, but below-average, average annual employment growth in Western Australia between 2018 and 2031. These sectors could be investigated further, where appropriate, to determine their potential to be targeted for economic development activities. Industries located in this section for Port Hedland are:

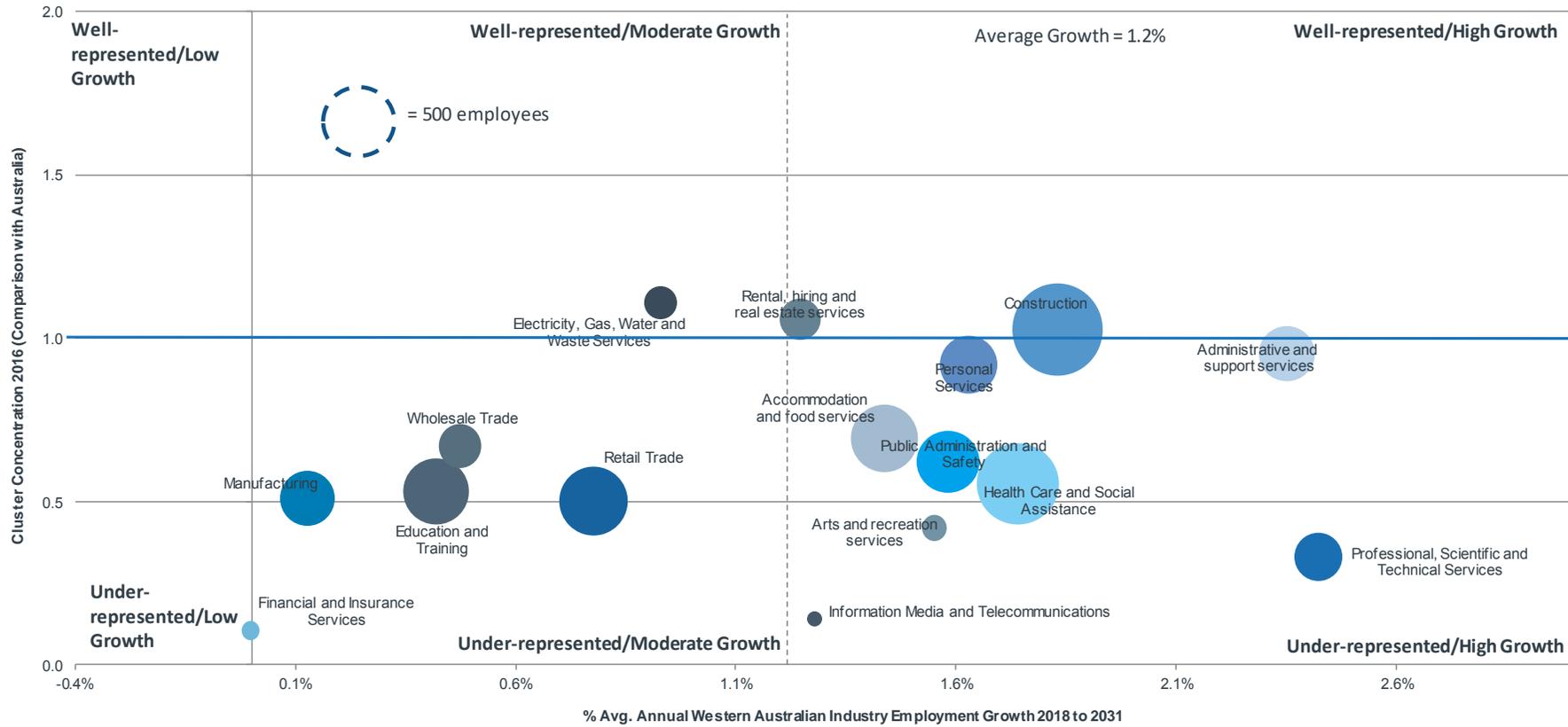
- Retail Trade (LQ = 0.5, Growth Expectation = 0.8%)
- Wholesale Trade (LQ = 0.7, Growth Expectation = 0.5%)
- Education and Training (LQ = 0.5, Growth Expectation = 0.4%)
- Manufacturing (LQ = 0.5, Growth Expectation = 0.1%).

Figure C. 1. Cluster Map, 1 Digit ANZSIC, Port Hedland (Direct Mining Employment Included)



Source: ABS (2017a), AEC (unpublished a).

Figure C. 2. Cluster Map, 1 Digit ANZSIC, Port Hedland - Amended Scale (Direct Mining Employment Included)



Note: The horizontal axes have been amended to only include a snapshot from -1.5% to 3.5% and vertical axis from 0.0 to 2.0, to better identify the industries in this section.  
 Source: ABS (2017a), AEC (unpublished a).

## EXCLUDING DIRECT MINING EMPLOYMENT

### Location Quotients

Although this location quotient analysis analyses the economy excluding direct mining employment, the mining industry’s influence will still exist in the labour specialisation of its supporting industries and those in the supply chain.

Location quotient analysis (at the 1-Digit ANZSIC level) of the economy excluding direct mining employment indicates higher (than previously identified) labour specialisation in Port Hedland for the industries where labour specialisation was evident:

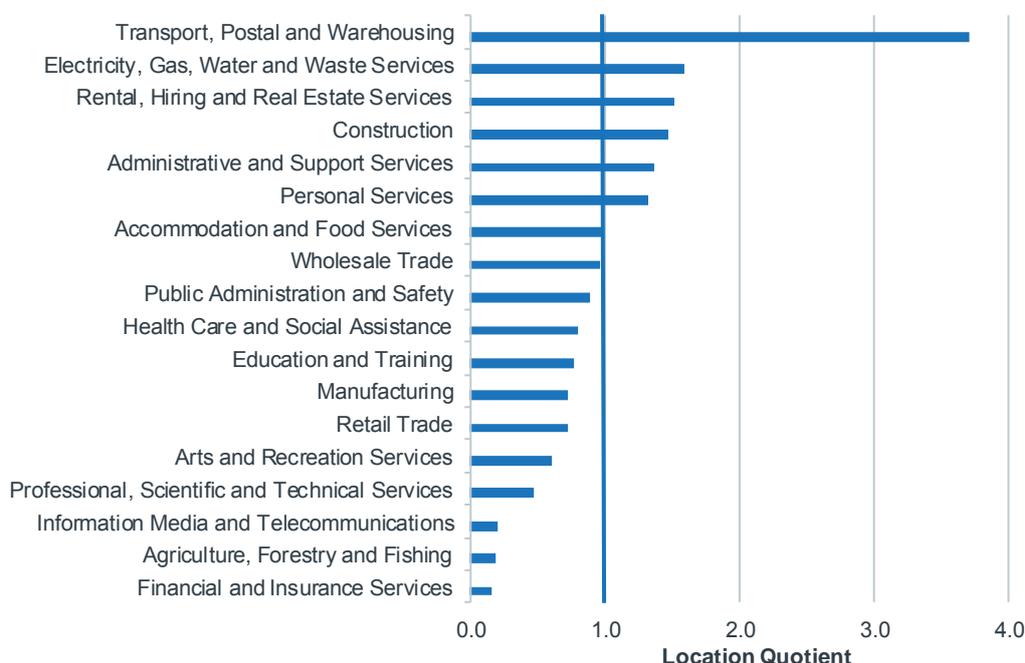
- Transport, Postal and Warehousing (LQ = 3.7)
- Electricity, Gas, Water and Waste Services (LQ = 1.6)
- Rental, Hiring and Real Estate Services (LQ = 1.5)

However, the region is comparatively lacking in some industries in terms of labour specialisation that contribute to a more diversified economic base, in particular:

- Construction (LQ = 1.5)
- Administrative and Support Service (LQ = 1.4)
- Personal Services (LQ = 1.3)

The region is comparatively lacking in terms of labour specialisation in the 1-Digit industries of manufacturing, healthcare and social assistance, education and training, and professional, scientific and technical services.

**Figure A. 7. Location Quotients, Port Hedland, 1 Digit ANZSIC 2016, Excluding Mining**



Source: ABS (2017a).

An assessment of location quotients at the 2-Digit ANZSIC level for manufacturing suggests Port Hedland has labour specialisations in the industries of:

- Fabricated Metal Product Manufacturing (LQ = 5.9)
- Petroleum and Coal Product Manufacturing (LQ = 1.9)

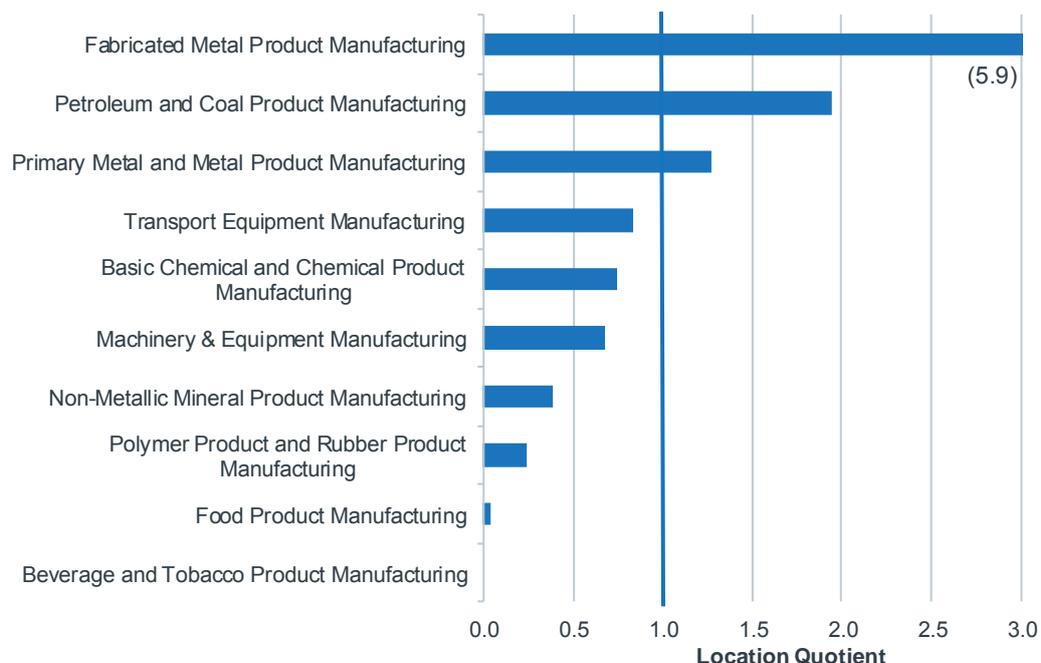


- Primary Metal and Metal Product Manufacturing (LQ = 1.3)

However, the region is comparatively lacking in some industries in terms of labour specialisation which could be potential opportunities for the region, in particular:

- Transport Equipment Manufacturing (LQ = 0.8)
- Machinery & Equipment Manufacturing (LQ = 0.7).

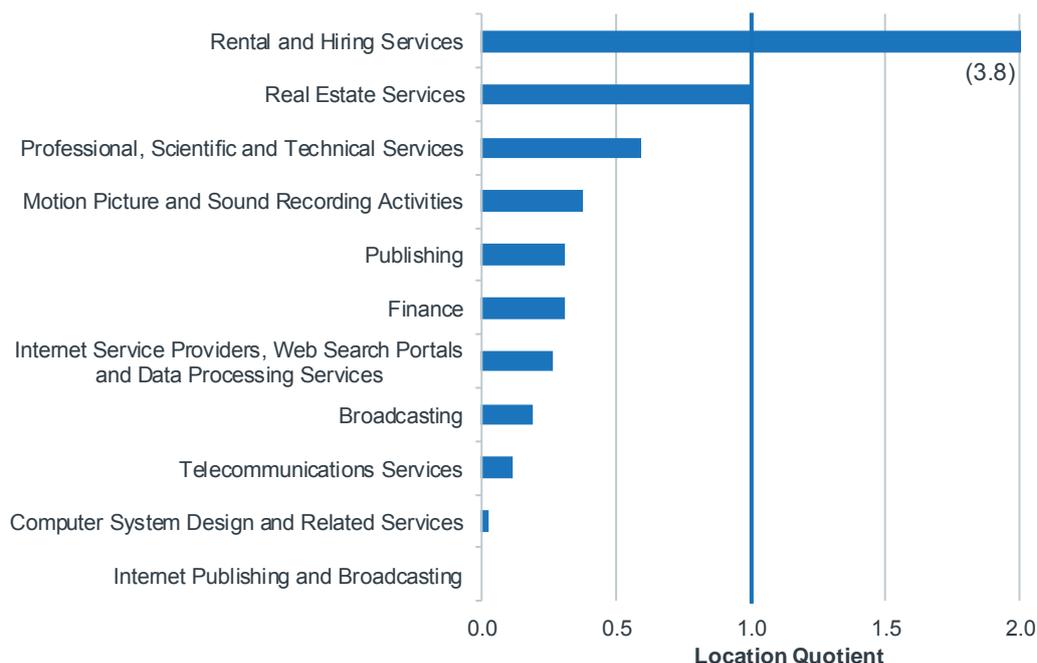
**Figure A. 8. Location Quotients, Port Hedland, 2 Digit Manufacturing, 2016**



Source: ABS (2017a).

An assessment of location quotients at the 2-Digit ANZSIC level for business services suggests Port Hedland has labour specialisations in Rental and Hiring Services (LQ = 3.8), however, is lacking in the potential industry opportunity of professional, scientific and technical services.

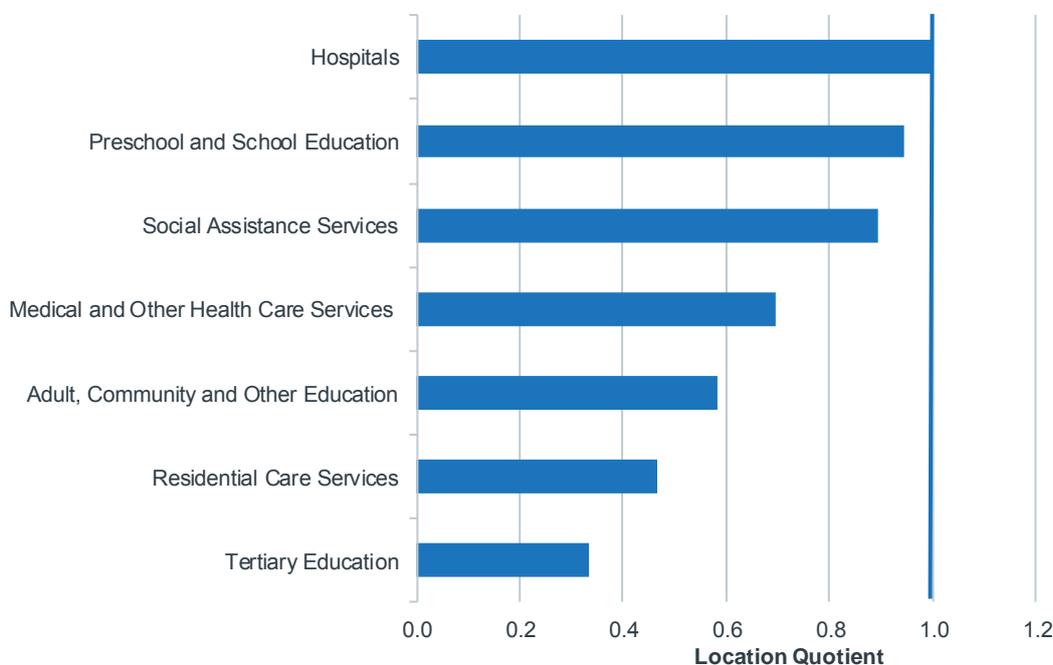
**Figure A. 9. Location Quotients, Port Hedland, 2 Digit Business Services<sup>(a)</sup>, 2016**



Notes: (a) Includes: Information Media and Telecommunications, Financial and Insurance Services, Rental, Hiring and Real Estate Services and Professional, Scientific and Technical Services.  
Source: ABS (2017a).

An assessment of location quotients at the 2-Digit ANZSIC level for health and education suggests Port Hedland is greatly lacking in terms of labour specialisations, particularly in Tertiary Education (LQ = 0.3) and Residential Care Services (LQ = 0.5).

**Figure A. 10. Location Quotients, Port Hedland, 2 Digit Health and Education, 2016**



Source: ABS (2017a).

## Cluster Mapping

Industries which are located in the Well-Represented/High Growth section of the cluster map are industries which benefit from local labour specialisation (i.e., an LQ above 1.0) and are anticipated to experience strong (above average) average annual employment growth in Western Australia. These sectors should be pursued for economic development activities, as they are likely to experience significant growth in coming years. The industries located in this section for Port Hedland are:

- Transport, Postal and Warehousing (LQ = 3.7, Growth Expectation = 1.2%)
- Administrative and Support Services (LQ = 1.4, Growth Expectation = 2.4%)
- Construction (LQ = 1.5, Growth Expectation = 1.8%)
- Personal Services (LQ = 1.3, Growth Expectation = 1.6%)
- Rental, Hiring and Real Estate Services (LQ = 1.5, Growth Expectation = 1.2%).

Industries which are located in the Under-Represented/High Growth section of the cluster map are industries which don't benefit from local labour specialisation (i.e., an LQ below 1.0) but are anticipated to experience strong (above average) average annual employment growth in Western Australia between 2018 and 2031. These sectors should be investigated further, where appropriate, to determine their potential to be targeted for economic development activities as they are may perform well in the coming years if local supply chains and support are available. Industries located in this section for Port Hedland are:

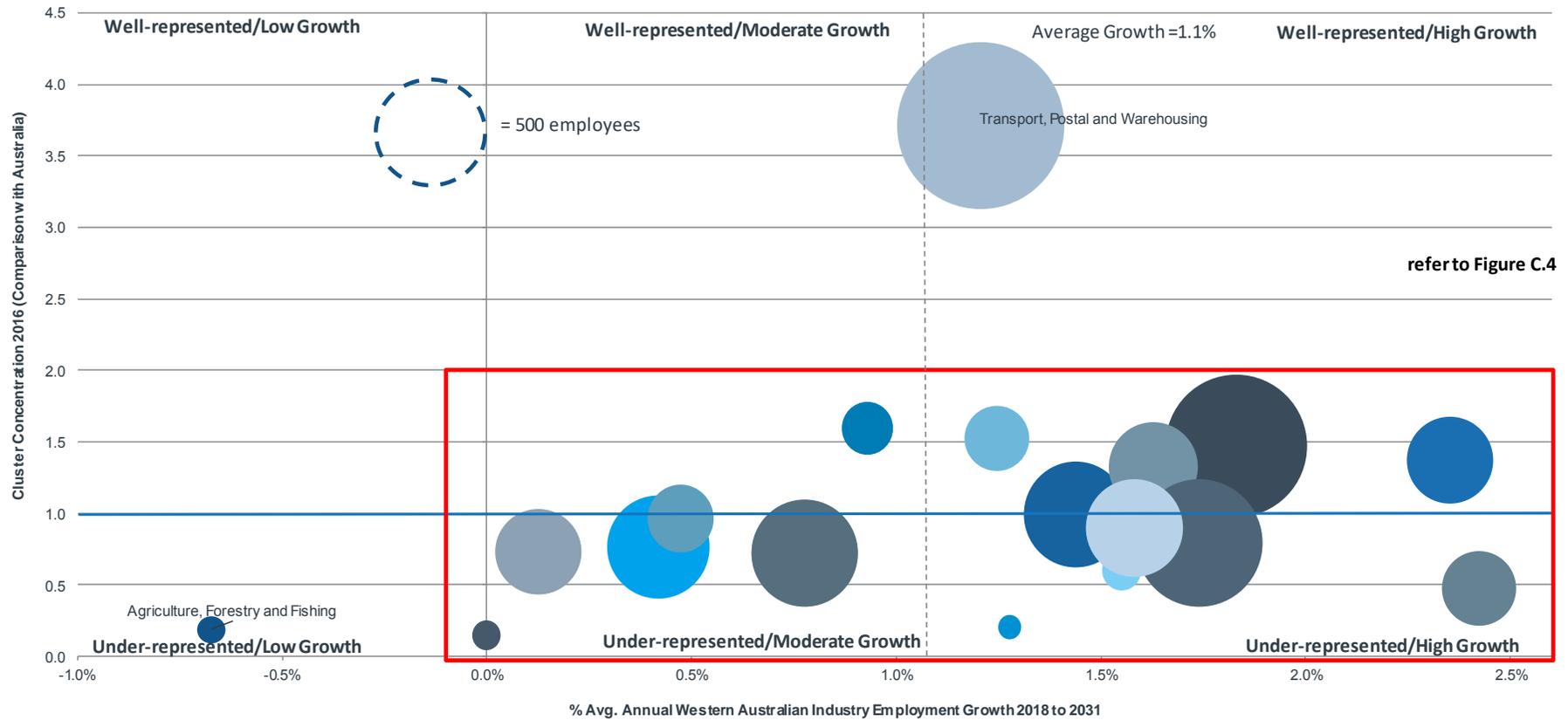
- Professional, Scientific and Technical Services (LQ = 0.5, Growth Expectation = 2.4%)
- Health Care and Social Assistance (LQ = 0.8, Growth Expectation = 1.7%)
- Public Administration and Safety (LQ = 0.9, Growth Expectation = 1.6%)
- Accommodation and Food Services (LQ = 1.0, Growth Expectation = 1.4%)
- Arts and Recreation Services (LQ = 0.6, Growth Expectation = 1.6%)
- Information Media and Telecommunications (LQ = 0.2, Growth Expectation = 1.3%).

Industries which are located in the Well-Represented/Moderate Growth section of the cluster map are industries which benefit from local labour specialisation (i.e., an LQ above 1.0) and are anticipated to experience positive, but below average, average annual employment growth in Western Australia. These sectors could be considered for economic development activities, particularly if they are interconnected with strong-growth sectors of the economy. The only industry located in this section for Port Hedland is Electricity, Gas, Water and Waste Services (LQ = 1.6, Growth Expectation = 0.9%).

Industries which are located in the Under-Represented/Moderate Growth section of the cluster map are industries which do not currently benefit from local labour specialisation (i.e., an LQ below 1.0) but are anticipated to experience positive, but below-average, average annual employment growth in Western Australia between 2018 and 2031. These sectors could be investigated further, where appropriate, to determine their potential to be targeted for economic development activities. Industries located in this section for Port Hedland are:

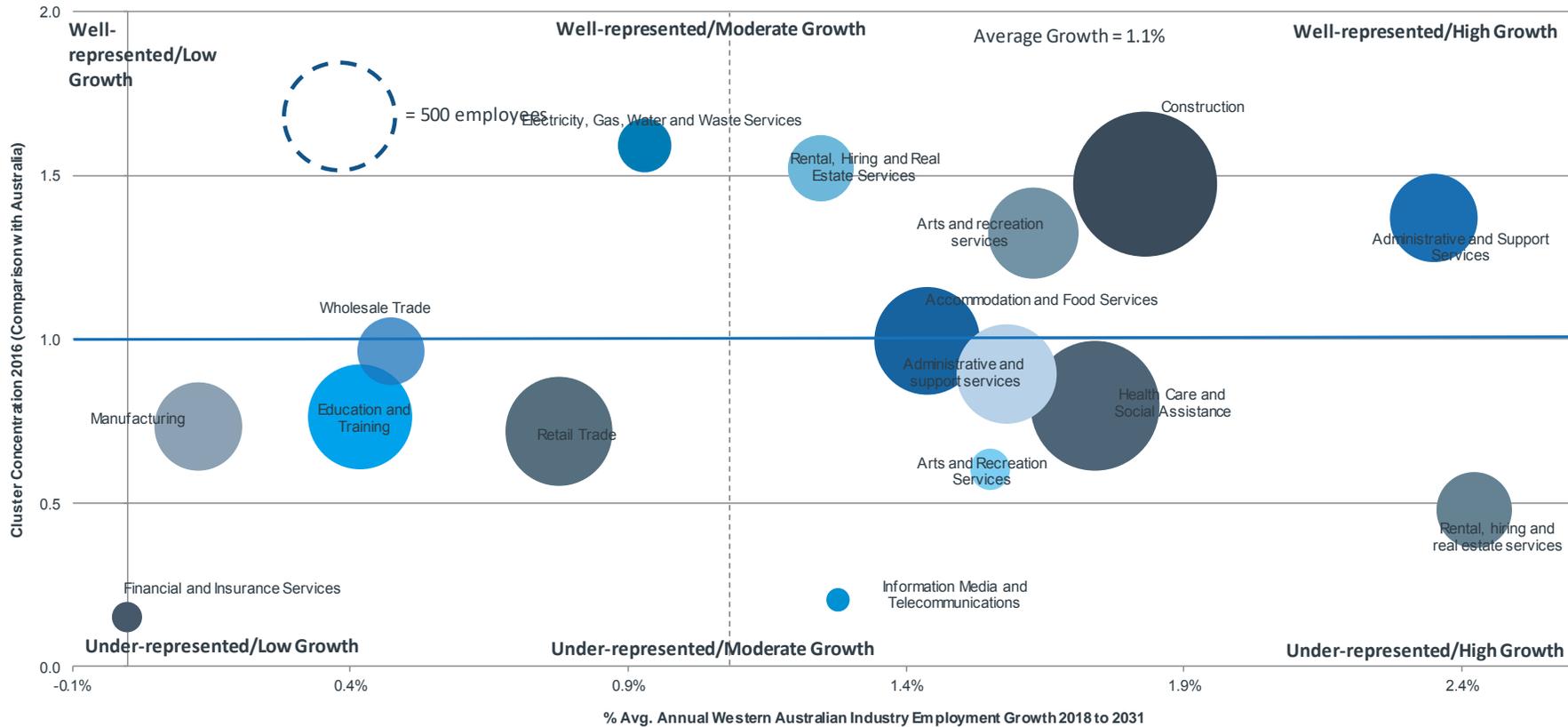
- Retail Trade (LQ = 0.7, Growth Expectation = 0.8%)
- Wholesale Trade (LQ = 1.0, Growth Expectation = 0.5%)
- Education and Training (LQ = 0.8, Growth Expectation = 0.4%)
- Manufacturing (LQ = 0.7, Growth Expectation = 0.1%).

Figure C. 3. Cluster Map, 1 Digit ANZSIC, Port Hedland (Direct Mining Employment Excluded)



Source: ABS (2017a), AEC (unpublished a).

Figure C. 4. Cluster Map, 1 Digit ANZSIC, Port Hedland - Amended Scale (Direct Mining Employment Excluded)



Note: The horizontal axes have been amended to only include a snapshot from -1.5% to 3.5% and vertical axis from 0.0 to 2.0, to better identify the industries in this section. Source: ABS (2017a), AEC (unpublished a).

## IMPORT/ EXPORT ANALYSIS

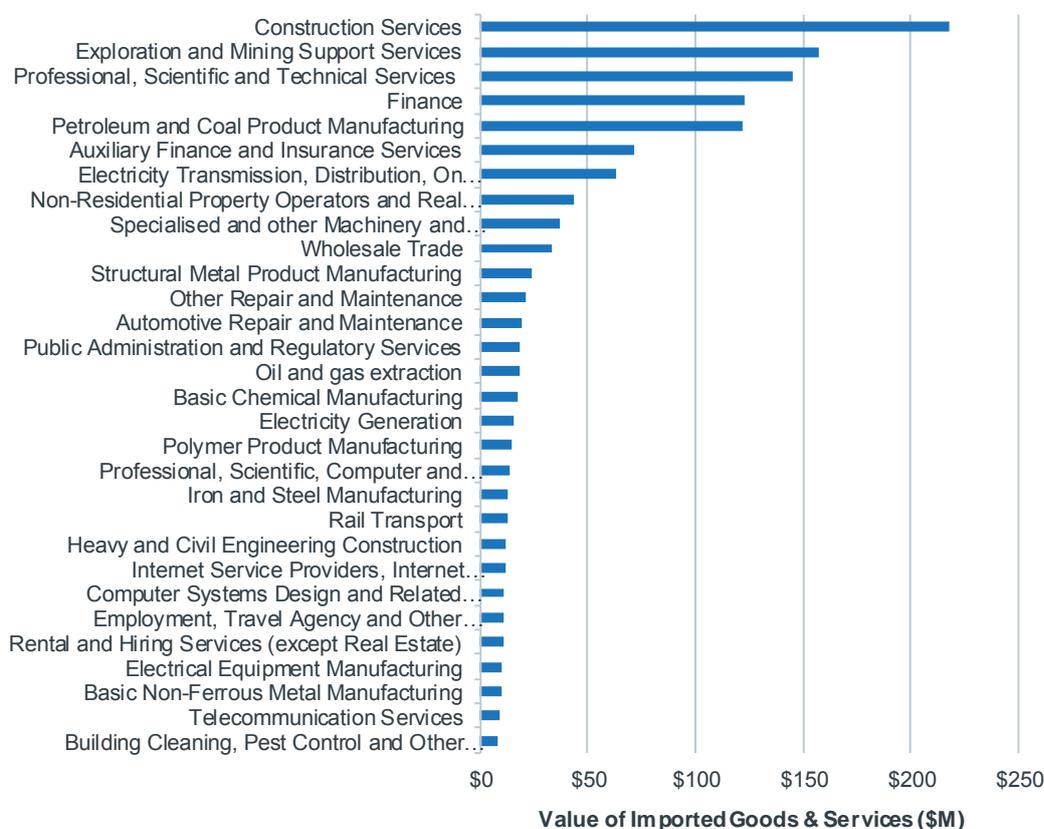
Prominent imports into a region can represent opportunities, where skills and labour can be easily sourced. This could improve local industry supply chains and provide additional job opportunities for locals.

Opportunities identified for potential import replacement in Port Hedland to diversify the economy include:

- Construction services
- Exploration and mining support services

In 2015-16, an estimated \$1.4 billion worth of imports came into Port Hedland from outside the local economy. The largest import was construction services, at approximately \$230 million. Financial and Insurance Services was the second largest import outside the local economy (\$200 million), followed by mining support services (\$158 million).

**Figure A. 11. Imported Goods and Services, 2015-16**

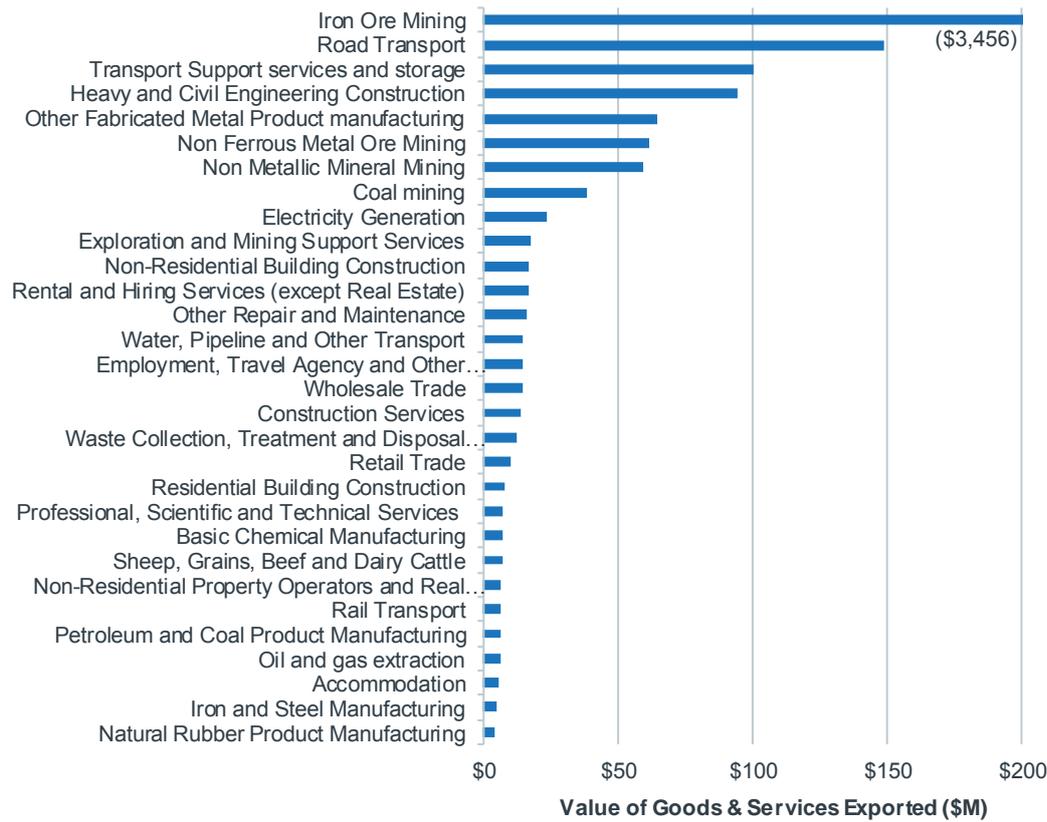


Source: ABS (2012), ABS (2017b).

In 2015-16, an estimated \$4.3 billion worth of exports left Port Hedland. Metal (iron) ore dominates the exporting (outside the local economy) industry, valued at \$3.5 billion and comprising 80.3% of the total. Although significantly smaller, transport and logistics and construction exports followed, valued at \$270 million and \$130 million respectively.



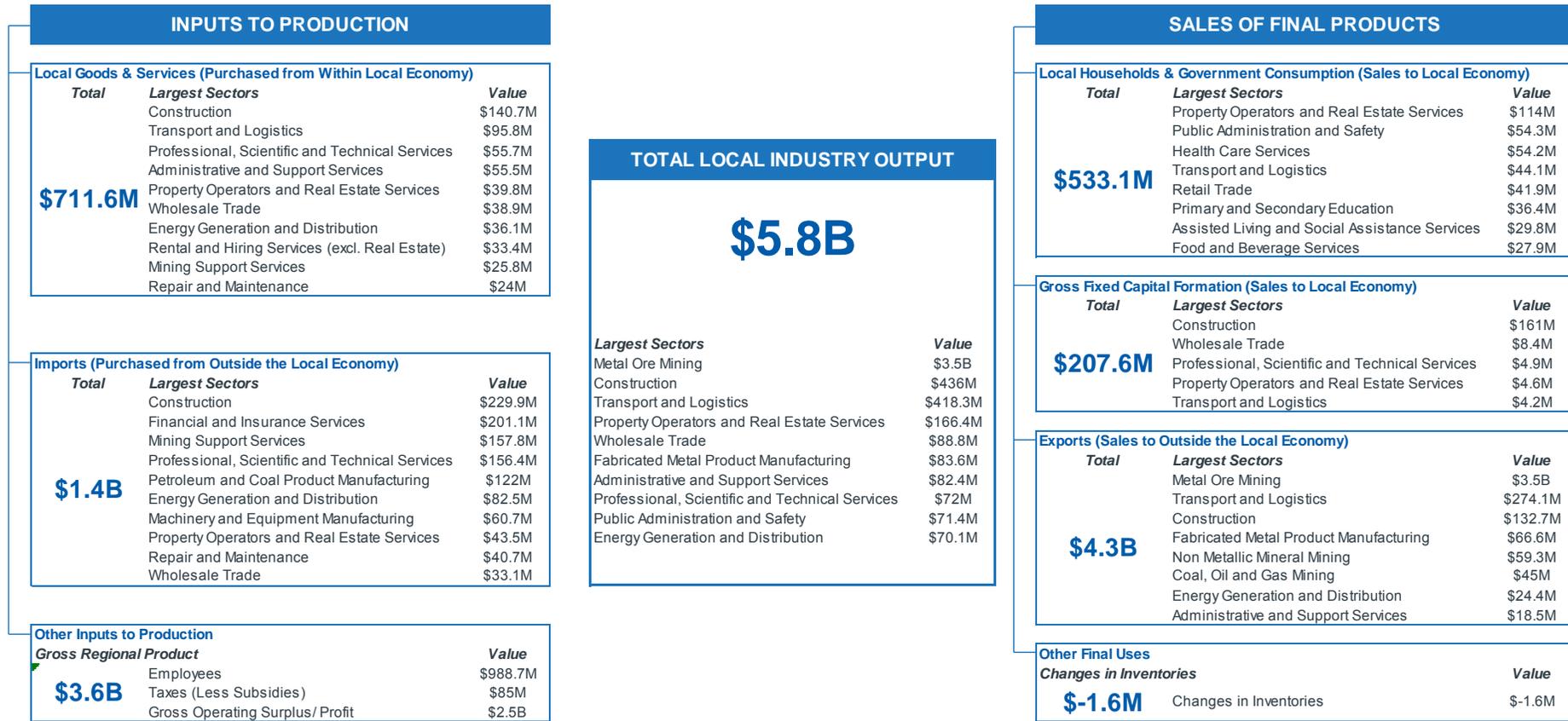
**Figure A. 12. Exported Goods and Services, 2016-16**



Source: ABS (2012), ABS (2017b).

Within the local economy, approximately \$712 million worth of local goods and services were transacted. The largest sector providing inputs to production was construction (\$140 million) followed by transport and logistics (\$95 million). Total local industry output totalled \$5.8 billion in 2015-16, predominantly driven by Metal (iron) Ore Mining, valued at \$3.5 billion.

Figure C. 5. Port Hedland Inputs, Outputs and Final Products, 2015-16



Source: ABS (2012), ABS (2017b).

## MACRO-ECONOMIC TRENDS

Successfully delivering economic and employment growth requires an understanding of the different factors that drive and influence the economy and the way people work. This section outlines the key local/ regional and national factors expected to influence the Port Hedland economy moving forward, including a description and local context.

### Mining Economic Cycle

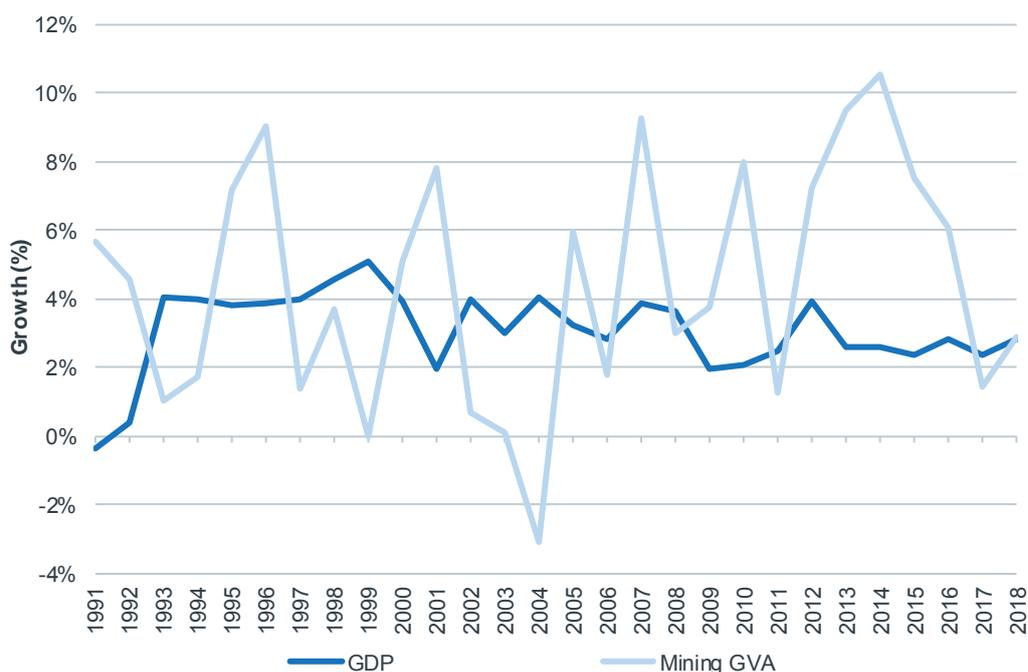
#### Description:

The mining industry is continually progressing through a boom and bust cycle, reflecting the relationship between demand and supply. Five stages capture the full cycle:

- 1 **Demand Drives Prices (End of Bust):** Supply is relatively fixed in the short term, as miners optimise mines for a specific level of production and reserves are run down due to the minimal exploration during the lean times. When demand increases, supply remains relative static, hence prices are driven upwards.
- 2 **New Exploration (Boom):** Higher prices incentivise new exploration and capex is allocated to bring previously uneconomic discoveries into production.
- 3 **Excess Supply (End of Boom):** Long lead times between development and first production result in new mines developed in conditions different to when first conceived. Increased supply over demand drives down commodity prices. Some mines may boost production to cover cash costs, resulting in downward pressure on industry margins.
- 4 **High Cost/ Less Efficient Mines Close & Late Cycle Projects Abandoned (Bust):** Higher cost producers tend to shut production, leading to loss of supply and dwindling stockpiles. The sustained falls in commodity prices force a range of second and third tier miners into administration, whilst lower cost miners focus on conserving cash. Exploration is halted.
- 5 **Back to Stage 1:** Some old mines are opened as prices recover; however, this fails to meet demand, causing prices to rise further.

Mining is a leading industry for Australia's gross domestic product growth activity. Figure C. 6 an average period of 4.0 years between troughs and 3.6 years between peaks, since 1991. The booms and busts within the mining industry have impacts on direct labour usage, intermediate input usage for mining operations, tax and royalty payments, dividends and retained earnings and investment for the national economy.

**Figure C. 6. GDP Growth vs. Mining GVA Growth, Australia**



Source: ABS (2018c).

**Local Context**

Port Hedland is a nexus of the iron ore industry, where 171.9 million tonnes of iron ore is exported from the Port of Port Hedland (Pilbara Ports Authority, 2019). Following the recent prolonged downturn, mining activity is on the rise again, with the recent approval of the Eliwana project and replacement of the Yandi mine with South Flank. This is anticipated to bring job opportunities, infrastructure upgrades and financial security for Port Hedland resident workers.

**Population and Demographic Trends**

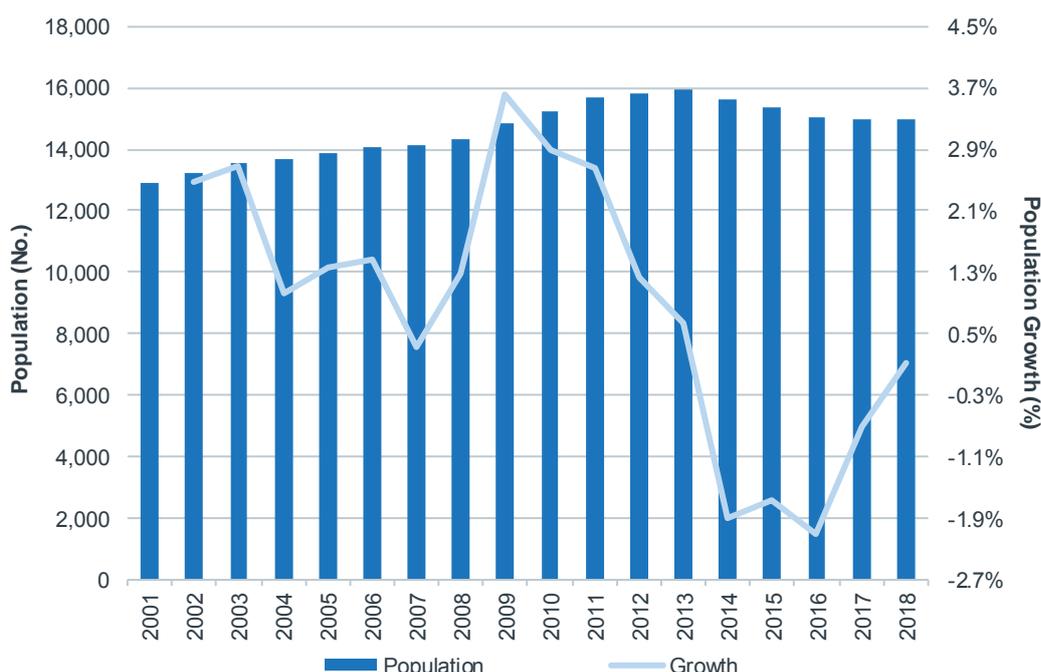
**Description**

Volatility in annual population growth rates in regional mining communities is common, where population growth is strongly linked to periods of operational expansion and major construction works. The unpredictable nature of population growth poses challenges in planning for housing, infrastructure and services.

**Local Context**

Population growth in Port Hedland has declined since its peak in 2009, to reach a population of approximately 15,000 in 2018. Reducing the reliance on the FIFO workforce and increasing the permanent residential workforce in the long term is key for reducing the volatility. Growth of 2.5% annually is anticipated for Port Hedland over the next 20 years (Profile.ID, 2019), potentially supported by the announcement of three new mining projects in the region by BHP, Rio Tinto and FMG.

**Figure 5.1. Population Growth, Port Hedland**



Source: ABS (2017a).

The average age in Port Hedland was 31.6 in 2018, compared to the national average of 38.2. Port Hedland has strong mining and construction industries which tend to comprise of young and fit workers, due to the heavy manual labour required. This is contributing to the lower average age in Port Hedland than nationally, further evidenced by Port Hedland’s large proportion of people aged between 25 and 44 (39%).

### Changing Nature of Dwellings Demand

#### Description

Dwelling demand in Port Hedland differs from that in Western Australia as a whole, with a more diverse housing supply. Port Hedland’s dwelling demand is heavily influenced by changes in the resources sector, which impacts population growth, real estate confidence and thus demand for dwellings.

#### Local Context

Overall, dwelling demand in Port Hedland has decreased by 3.6% annually between 2006 and 2016. In 2016, separate houses represented the largest demand (69.4%), followed by flats or apartments (15.8%).

**Table 5.3. Dwelling Structure, Port Hedland, 2016**

Dwelling Structure	Port Hedland			WA
	2006	2011	2016	2016
Separate House	70.0%	63.0%	69.4%	76.7%
Semi-Detached, Row or Terrace House, Townhouse etc.	9.8%	14.1%	9.4%	14.6%
Flat or Apartment	8.2%	10.5%	15.8%	6.8%
Caravan, Cabin, Houseboat	11.6%	9.9%	4.6%	1.4%
Improvised Home, Tent, Sleepers Out	0.2%	1.6%	0.8%	0.3%
House or Flat Attached to a Shop, Office, etc.	0.2%	0.9%	0.1%	0.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Source: ABS (2017c)

## Changing Nature of Consumer Behaviour

### Description

Consumer expenditure is increasingly trending towards households reducing debt, paying down mortgages and embracing the digital economy to allow for collaborative consumption and online retailing. Changing consumer trends is expected to impact on any industry involved in the provision of goods and services to end consumers. Retail trade is likely to be the most heavily impacted industry, as a result of changing consumer trends towards online shopping. Conversely, some industries are anticipated to be positively impacted by innovations and technology that are changing consumer preferences. As a rural area, Port Hedland is likely to engage in online educational provision and potentially tele-health services into the future.

### Local Context

Consumer expenditure in Port Hedland is heavily driven by activity cycles of the mining industry, as resident workers are typically directly or indirectly associated with employment in this industry. Consumer spending is anticipated to grow with the increasing activity in mining. The retail sector in Port Hedland is small, representing just 5.2% of overall employment. Therefore, capturing greater spend from local residents and FIFO workers will prove essential for growth over the coming years.

## FIFO Practises

### Description

FIFO practises are common in areas associated with labour-intensive, short-term activities such as construction works. This approach to employment recognises that it is not viable to expect workers to uproot themselves to take on a residential position that only offers a short-term employment contract.

### Local Context

FIFO tends to be preferred for employment over residential workforces, with the cost of employing and accommodating a local resident for a mining company much larger than employing a FIFO worker. The FIFO workforce in Pilbara region was estimated at 20,834 workers in 2011, expected to rise to around 33,685 by 2020 (Regional Development Australia, 2012). More FIFO workers will be required over the next few years in Port Hedland, with the anticipated boom in construction including the capital works program to expand the Port (2-year project), BHP South Flank mine in Pilbara, FMG Port Hedland expansion and Rio Tinto expansions and new mines (Centre Point Finance, 2019). This construction requires more camps and expanding leases on the existing FIFO worker camps.

## Tourism

### Description

Tourism covers the services provided to international and domestic visitors and is a key driver for many industries throughout the regional, State and Australian economies. Tourism in Port Hedland is associated with its shipping and mining heritage as well as its Indigenous and European history experiences.

### Local Context

Visitation in Port Hedland has fluctuated significantly over time, peaking in 2018 with 243,650 domestic visitors and approximately 15,300 international visitors. Domestic visitors can be primarily attributed to those visiting for business purposes (54.1 of total visitors), followed by holidaying visitors (25.3%). Comparatively, international visitors are primarily comprised of those on holiday (69.1%) followed by business (11.9%). The average length of stay was 5 nights in 2018, indicating the relatively short length of stay of visitors.

**BRISBANE**

Level 5, 131 Leichhardt Street  
Spring Hill QLD 4000  
Australia  
T: +61 (0)7 3831 0577

**DARWIN**

Level 1, 48-50 Smith Street  
Darwin NT 0800  
Australia  
T: 1300 799 343

**TOWNSVILLE**

233 Flinders Street East  
Townsville QLD 4810  
Australia  
T: +61 (0)7 4771 5550

**MELBOURNE**

Level 13, 200 Queen Street  
Melbourne VIC 3000  
Australia  
T: +61 (0)3 8648 6586

**SYDNEY**

Level 14, 25 Bligh Street,  
Sydney NSW 2000  
Australia  
T: +61 (0) 2 9283 8400

**PERTH**

Level 2, 580 Hay Street  
Perth WA 6000  
Australia  
T: +61 (0) 8 6555 4940

**AFFILIATED OFFICES:****BANGKOK**

2024/129-130 Sukhumvit 50  
Prakanong Klongtoey,  
Bangkok, Thailand 10260  
T: +66 2 107 0189

**SHANGHAI**

Level 35, 1st Building,  
700 Liqun Road, Putuo District,  
Shanghai, China 200333  
T: +8618 516293312

[aecgrouppltd.com](http://aecgrouppltd.com)

OUTCOME DRIVEN



OUTCOME DRIVEN





- Legend**
- Land Use**
- Urban (Existing)
  - Priority Urban Land
  - Future Urban Land
  - Development Investigation Area
  - Public Use
  - Commercial
  - Strategic Industry
  - Parks and Recreation
  - Rural
- Other**
- Waterbodies
  - Area Boundary
  - Improvement Plan No. 50 Boundary
  - Primary Regional Road
  - District Distributor Road
  - Rail Corridor
  - Rail Corridor Offset (200m)
  - 100 Year Coastal Erosion Line
- Development Areas**
- 1 Former Recreation and Detention Centre
  - 2 Telstra Tower Site
  - 3 Former Wastewater Treatment Plant Site
  - 4 Athol Street Development Investigation Area
  - 5 The Stables Precinct Development Investigation Area
  - 6 Pretty Pool Stage 3a Development Investigation Area
- Community Infrastructure**
- 7 Spoilbank Marina
  - 8 McGregor Street Sporting Precinct
  - 9 Tjalka Boorda Tourism Opportunity
- Activity Centres**
- 10 The Boulevard Neighbourhood Centre
- Environmental Assets**
- 11 Cemetery Beach Turtle Nesting Area
  - 12 Cooke Point Beach Turtle Nesting Area
  - 13 Four Mile Creek
  - 14 Pretty Pool Creek
  - 15 Pretty Pool Beach Turtle Nesting Area
  - 16 Six Mile Reserve

# Map 01 - Port Hedland Townsite

Town of Port Hedland Local Planning Strategy DRAFT



Figure D.6.3: Port Hedland Coastal Processes Setback - 100 year Planning Horizon (2110).

- Athol Street Development Investigation Area
- Stables Precinct Development Investigation Area
- Pretty Pool Stage 3a Development Investigation Area
- Sediment cell boundary
- Landform Vulnerability (after [http://www.planning.wa.gov.au/dop\\_pub\\_pdf/pilbara\\_coastline\\_part6\\_4\\_1.pdf](http://www.planning.wa.gov.au/dop_pub_pdf/pilbara_coastline_part6_4_1.pdf))
  - 3 - Moderate
  - 4 - Moderate to High
  - 5 - High

Schedule of Modifications

Town of Port Hedland – Draft Local Planning Strategy

No.	Section in draft Strategy	Western Australian Planning Commission's Required Modifications to draft Local Planning Strategy	Rationale
1	Whole of Document	Combine the draft Strategy's Part I, Part II and Appendix A into a single document.	To improve readability, continuity, and cross-referencing between the various sections of the draft Strategy.
2		Apply consistent paragraph structure, nomenclature.	
3	Part I before "Strategic Plan" section; Part II sections 2 – 5, 7, and Appendix A.	Insert a new "Key Issues" heading before the "Strategic Plan" section in Part I, which incorporates: <ul style="list-style-type: none"> <li>the "Key Issues" from Part II section 7, and the key findings and recommendations of the Town of Port Hedland's Public Open Space Strategy, being reorganised and adapted into Part I; and</li> <li>under each of the "Key Issues", a summary of the related "Findings and Recommendations" from Part II sections 2 to 5, and Appendix A.</li> </ul>	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.  To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
<b>Part I - Strategy</b>			
4	Why the Strategy is important Stakeholder and community engagement	Combine under the heading "Introduction" as first section to Part I of the draft Strategy.	To provide a suitable context to the information being presented in the first section of the draft Strategy.
5	"An approach to urban growth"	Address this section under a new 'Key Issues' heading (see Modification 3, above)	To provide a suitable context to the information being presented in this section of the draft Strategy.
6		Include reference to the Growth Plan being endorsed as the Town's local planning strategy in 2012.	
7	Population forecasting – Conservative forecast	Address this section under a new 'Key Issues' heading (see Modification 3, above)	To provide background information on the reference to "RFF".
8		Include a "Terms Used" up front in the draft Strategy, or remove reference to "RFF" (replace with "the Town")	To provide a suitable context to the information being presented in this section of the draft Strategy.
9	Housing demand and supply	Address this section under a new 'Key Issues' heading (see Modification 3, above)	To provide a suitable context to the information being presented in this section of the draft Strategy.
10	District and regional services and facilities to support urban growth	Address this section under a new 'Key Issues' heading (see Modification 3, above)	To provide a suitable context to the information being presented in this section of the draft Strategy.
11	A coordinated approach to the provision of Industrial land	Address this section under a new 'Key Issues' heading (see Modification 3, above)	To provide a suitable context to the information being presented in this section of the draft Strategy.
12	Introduction (including all subheadings)	Combine under the heading "Introduction" as first section to Part I of the draft Strategy.	To provide a suitable context to the information being presented in this section of the draft Strategy.  To improve readability, continuity, and cross-referencing between the various sections of the draft Strategy.
13	Figure 1 Integrated Planning and Reporting Framework	Modify Figure 1 to depict the relationship between Integrated Planning and Reporting Framework under the <i>Local Government Act 1995</i> and the Local Planning Scheme prepared under the <i>Planning and Development Act 2005</i> .	To provide a suitable context to the information being presented in this section of the draft Strategy.
14	Figure 2 – Location and Strategy Area	Modify figure to show the Town of Port Hedland's municipal boundary as described in the Government Gazette	To correct the inaccurate depiction of municipal boundary.
15	Community Infrastructure	Amend to include land use planning strategies and actions responding to relevant 'Key Issues' (see Modification 3, above).	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.

No.	Section in draft Strategy	Western Australian Planning Commission's Required Modifications to draft Local Planning Strategy	Rationale
			To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
16	Public Open Space	Amend to include land use planning strategies and actions responding to relevant 'Key Issues' (see Modification 3, above).	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
17	Economic Development	Move the preparation of future studies/strategies to the "implementation and monitoring" section. Modify the actions to remove any non-planning matters and provide rationale for local planning scheme provisions such as zoning, reservation and development control, as well as more proactive measures such as infrastructure development, direct investment or other development initiatives.	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
18	Activity Centre Hierarchy	Move the preparation of future studies/strategies to the "implementation and monitoring" section. Modify the actions to remove any non-planning matters and provide rationale for local planning scheme provisions such as zoning, reservation and development control, as well as more proactive measures such as infrastructure development, direct investment or other development initiatives.	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
19	Rural, Mining and Pastoral Areas	Identify a preferred location for a dedicated holding yard and separate abattoir Specify the recommended purpose(s) and location(s) for pastoral diversification permits. Specify the potential purpose(s) and consultation process for determining appropriate use of former mine sites on pastoral land	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
20	Tourism	Move the preparation of future studies/strategies to the "implementation and monitoring" section. Provide rationale for tourism zone precincts and use classes – through responding to State Planning Strategy vision, Tourism Planning Guidelines (2014), Pilbara Tourism Product Development Plan (2014), Spoilbank Marina development (see Modification 3, above).	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
21	Coast and Foreshores	Amend to include land use planning strategies and actions responding to relevant 'Key Issues' (see Modification 3, above). Review the 'Relevant Objectives' to apply the potential Special Control Area objectives under draft Local Planning Scheme No. 7: for example - a) To ensure land in the coastal zone is continuously provided for coastal foreshore management, public access, recreation and conservation. b) To ensure public safety and reduce risk associated with coastal erosion and inundation. c) To avoid inappropriate land use and development of land at risk from coastal erosion and inundation. d) To ensure land use and development does not accelerate coastal erosion or inundation risks; or have a detrimental impact on the functions of public reserves. e) To ensure that development addresses the Broome Townsite Coastal Hazard Risk Management and Adaptation Plan prepared in accordance with State Planning Policy No. 2.6 State Coastal Planning Policy (as amended) and any relevant local planning policy prepared in accordance with this Scheme.	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
22	Vegetation and Biodiversity	Expand address relevant issues in areas outside of the coastal zone – including South Hedland and the other urban areas and settlements (see Modification 3, above).	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .

No.	Section in draft Strategy	Western Australian Planning Commission's Required Modifications to draft Local Planning Strategy	Rationale
23	Bushfire	Clearly identify the responsible party(s) and planning stage(s) where the relevant bushfire hazard level or bushfire attack level studies will be prepared.	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
24	Air Quality	Amend to include land use planning strategies and actions responding to relevant 'Key Issues' for land within the West End that is not proposed to be subject to Port Hedland West End Improvement Scheme No. 1 (Taplin to McGregor Street, coastal foreshore, Spoilbank).	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
25	Land Use Compatibility	Amend to clarify whether this section is subsidiary to the 'Air Quality' section. Provide definition of 'sensitive' land uses in context of Part I of the draft Strategy.	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
26	Urban Growth - Housing	Modify this section to align with descriptions in the 'East End Urban Village precinct' section which identifies Athol Street, Pretty Pool Stage 3a and Stables Precinct development sites as 'Development Investigation Areas', being areas of land that may be suitable for residential development but have a number of constraints that would need to be addressed prior to the land being zoned or developed for those purposes.  Amend the description of the 'Development Investigation Areas' to clearly note that this designation does not mean that the land is zoned, or developed, for the future identified use, but rather the subject land will require detailed investigation and assessment to determine its suitability for that use.  Identify the specific technical investigations that are required to support the next stage in planning investigation for the 'Development Investigation Areas'.	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
27	PRECINCTS	Provide new precinct scale maps to spatially depict planning actions.	To improve readability, continuity, and cross-referencing between the various sections of the draft Strategy.
28	West End Precinct	Review and amend objective  Amend to include land use planning strategies and actions responding to relevant 'Key Issues' for land within the West End that is not proposed to be subject to Port Hedland West End Improvement Scheme No. 1 (coastal foreshore, Spoilbank).	No objective provided for the West End precinct – strategy wording repeated. To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
29	Spinifex Hill	Amend to include land use planning strategies and actions responding to relevant 'Key Issues' for land within the West End that is not proposed to be subject to Port Hedland West End Improvement Scheme No. 1 (Taplin to McGregor Street, coastal foreshore).	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II. To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
30	East End Urban Village	Replace reference "Implementation Plan 50" with "Improvement Plan No. 50"  Amend the description of the 'Development Investigation Areas' to clearly note that this designation does not mean that the land is zoned, or developed, for the future identified use, but rather the subject land will require detailed investigation and assessment to determine its suitability for that use.	To correct typographical error. To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.

No.	Section in draft Strategy	Western Australian Planning Commission's Required Modifications to draft Local Planning Strategy	Rationale
		Identify the specific technical investigations that are required to support the next stage in planning investigation for the 'Development Investigation Areas'.	To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i> .
31	South Hedland	<p>Modify 4<sup>th</sup> 'Precinct Objective' as follows: "Progressively improve the <del>provision</del> <b>accessibility quantity, and quality</b> of open space within South Hedland <b>in accordance with the principles and policy measures of Liveable Neighbourhoods.</b>"</p> <p>Modify 3<sup>rd</sup> Strategy/2<sup>nd</sup> Action to detail specifically how the local planning scheme will "Implement the recommendations of the Town's Public Open Space Strategy to ensure sufficient open space is set aside in future structure planning and subdivision within South Hedland."</p> <p>Amend to include land use planning strategies and actions responding to relevant 'Key Issues' (see Modification 3, above).</p>	<p>To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.</p> <p>To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>.</p>
32	South Hedland City Centre	<p>Amend to include land use planning strategies and actions responding to relevant 'Key Issues' (see Modification 3, above).</p> <p>Provide planning framework for the recommended review of structure plans.</p>	<p>To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.</p> <p>To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>.</p>
33	Service Infrastructure	Amend to include land use planning strategies and actions responding to relevant 'Key Issues' (see Modification 3, above).	<p>To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.</p> <p>To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>.</p>
34	Road and Rail	<p>Move the preparation of future studies/strategies to the "implementation and monitoring" section.</p> <p>Amend to include land use planning strategies and actions responding to relevant 'Key Issues' (see Modification 3, above).</p>	<p>To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.</p> <p>To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>.</p>
35		<p>List all future studies predicated in Part I under the "Preparation of further targeted strategies" heading.</p> <p>List all advocacy actions predicated in Part I under the "Advocacy / Promotions" heading.</p>	To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.
36	Strategy Maps	<p><u>Map 01:</u></p> <p>Modify the Legend to:</p> <ul style="list-style-type: none"> <li>• remove the 'Future Urban Land' category;</li> <li>• identify Athol Street, Pretty Pool Stage 3a and Stables Precinct development sites under new separate heading for 'Development Investigation Areas'.</li> </ul> <p>Modify the spatial delineation of each 'Development Investigation Area' to clearly indicate that the final extent of urban development within each 'Development Investigation Area' will be determined through completion of the comprehensive investigations identified in the Strategy (for example: replace each site's polygon with a point or asterix).</p> <p>Show SCA 7 -Coastal Hazard and Risk Management Adaptation Area.</p> <p><u>General:</u></p> <p>Identify approved structure plan areas, including those under review.</p> <p>Include depiction of the following public open space areas on the Strategic Maps:</p> <ul style="list-style-type: none"> <li>• regional open space (including broad use and management classification)</li> <li>• district open space (including broad use and management classification)</li> <li>• existing and future local open space (including strategic open space links)</li> <li>• natural resource management and environmental protection areas (flora/fauna, wetlands, waterways etc)</li> </ul>	<p>To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.</p> <p>To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>.</p>

No.	Section in draft Strategy	Western Australian Planning Commission's Required Modifications to draft Local Planning Strategy	Rationale
		Identify coastal tourism nodes.	
<b>Part II - Background Information and Analysis</b>			
37	Figures 1, 3, 13, 14, 15, 16	Modify figures to show the Town of Port Hedland's municipal boundary as described in the Government Gazette	To correct the inaccurate depiction of municipal boundary.
38	Figures 17, 18, 19	Review the intent of these figures and modify how the relevant matters are depicted.	To provide more readable depiction of relevant planning matters.
39	7. Key Issues	Address this section under a new 'Key Issues' heading in Part I (see Modification 3, above)	<p>To provide a suitable planning response, strategies and actions in Part I to the draft Strategy's findings, key issues and recommendations based on assessment against relevant State Planning Framework and local context in Part II.</p> <p>To provide a clearer rationale for zoning and classification of land under the scheme in accordance with Regulation 11(2) of the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>.</p>



<b>REPORT TO</b>	Statutory Planning Committee		
<b>Meeting date</b>	19 May 2020	<b>File number</b>	PLH2020P0271
<b>Subject</b>	City of Wanneroo Local Planning Policy 2.6 Ancillary Accommodation		
<b>Purpose</b>	Requires WAPC decision		
<b>Title of Approving Officer</b>	Planning Director - Metro North		
<b>Agenda Part for Reports (All parts are confidential unless otherwise stated)</b>			
SPC - Non-Confidential (To be published to the website)			
<b>SITE-SPECIFIC DETAILS</b>			
<b>Region/s</b>	Perth		
<b>Local government/s</b>	City of Wanneroo		
<b>Landowner/Consultant</b>	N/A		
<b>Location map</b>	N/A		
<b>Bushfire Prone Area</b>	NO		
<b>SUMMARY</b>			
<p>The City of Wanneroo (the City) is seeking the Western Australian Planning Commission's (WAPC) approval of an amendment to its <i>Local Planning Policy 2.6 – Ancillary Accommodation</i> policy (LPP 2.6), which, pursuant to Clause 7.3.2 of <i>State Planning Policy 7.3 - Residential Design Codes Volume 1 (R-Codes)</i>, proposes to vary the deemed-to-comply provisions of R-Codes Clause 5.5.1 <i>Ancillary Dwellings</i>.</p> <p>The proposed amendment aims to improve the built form quality of ancillary dwellings across the City by adding an ancillary-dwelling-specific aesthetic criterion to the deemed-to-comply provisions of the R-Codes. Proposals that would not satisfy the expanded deemed-to-comply provisions would not qualify for exemption from development approval, and would then be formally assessed by the City on the basis of built form design.</p> <p>As the Department's officers do not have delegated authority to approve local planning policy variations under R-Codes clause 7.3.2, the matter has been put to the Statutory Planning Committee for determination. Support for the proposal is recommended, subject to a modification.</p>			
<b>DETAILS OF PROPOSAL</b>			
<p>LPP 2.6 provides guidance for the development of ancillary accommodation across the City of Wanneroo, with special emphasis on accommodation that complements local character (<b>Attachment 1 - City of Wanneroo draft Local Planning Policy 2.6 Ancillary Accommodation</b>). In this policy, ancillary accommodation has the same meaning as 'ancillary dwelling', defined in the R-Codes as follows:</p> <p style="text-align: center;"><i>Self-contained dwelling on the same lot as a single house which may be attached to, integrated with or detached from the single house.</i></p> <p>Part 2 Section 2 of LPP 2.6 retains the deemed to-comply provisions of Clause C1 5.5.1 Ancillary</p>			

Dwellings of the R-Codes but proposes to add the below (highlighted) provision and associated definition:

#### **Clause 2.1 of LPP 2.6**

*C1 Ancillary dwelling associated with a single house and on the same lot where:*

- i. the lot is not less than 450m<sup>2</sup> in area;*
- ii. there is a maximum plot ratio area of 70m<sup>2</sup>;*
- iii. ancillary accommodation constructed with a matching built form<sup>1</sup> as the single house to which it is ancillary;***

***NOTE 1: The term 'matching built form' is defined in Part 1 of this policy, under the heading 'Definitions and Interpretations.'***

- iv. parking provided in accordance with Clause 5.3.3 C3.1 of the R-Codes; and*
- v. complies with all other R-Code provisions, only as they apply to single houses, with the exception of*
  - a) 5.5.1 Site area;*
  - b) 5.2.3 Street surveillance (except where located on a lot with secondary street or right-of-way access); and*
  - c) 5.3.1 Outdoor living areas*

Under the *Definitions and Interpretations* heading in Part 1 of LPP 2.6, the following text, referred to in provision LPP 2.6 *iii*, is provided:

***Matching built form*** means a built form for ancillary accommodation that is the same as that of the Single House to which it is ancillary – by way of colour, texture and materials used in the construction of external walls; roof material, colour and pitch; and floor to ceiling height.

#### **BACKGROUND**

Under clause 61 of the *Planning and Development (Local Planning Schemes) Regulations 2015 Deemed Provisions* (Deemed Provisions), ancillary dwellings are exempt from requiring development approval provided they satisfy the deemed-to-comply provisions of the R-Codes. The deemed-to-comply provisions do not include built form criteria.

According to the City, this exemption has led to numerous, poor built-form outcomes, such as minesite accommodation being used as ancillary dwellings in suburban backyards. It was noted through the City's compliance investigations there were insufficient deemed-to-comply provisions in the R-Codes regarding the design of ancillary accommodation, and no mechanism by which consultation with adjoining landowners on design could be arranged. Wanneroo councillors have received numerous resident complaints about the lack of consultation, and the poor appearance of these dwellings.

The City has provided evidence of these undesirable outcomes (**Attachment 2 – Photos of City of Wanneroo Ancillary Accommodation**) and, based on a recent audit of Building Permit applications received in 2019, anticipates around 13 more of these undesirable examples per annum unless a policy intervention can be enacted.

The City considers that a policy with more stringent deemed-to-comply requirements would lead to better built form outcomes. In the first instance, proposals that satisfy the expanded deemed-to-comply provisions would automatically be of an acceptable aesthetic standard, in keeping with local character and amenity. In instances where ancillary dwelling proposals do not satisfy the deemed-to-comply provisions, they will not be exempt from the formal development approvals process. In these circumstances the City intends to assess proposals against the Local Housing Objectives listed under LPP 2.6, which read as follows:

- 1.1 *To provide development of ancillary accommodation that can be occupied independently or semi-independently of the Single House situated on the lot.*
- 1.2 *Development and design of ancillary accommodation that applies the use of materials with a texture, colour elevation, bulk, scale and material finish that does not detract from the streetscape or the visual amenity of neighbouring properties.*
- 1.3 *Design which does not compromise the amenity of neighbouring properties and the streetscape by way of overlooking and overshadowing.*
- 1.4 *Development situated or undertaken in a manner that does not compromise the natural surroundings or environmental attributes that may exist on a site.*

Based on these objectives, the City's assessments could consider alternative design proposals that do not directly match the parent dwelling, provided they do not compromise the visual amenity, built form character and natural environment of their surroundings.

The draft revised LPP was advertised by the City of Wanneroo between 19 February and 9 April 2020. Pursuant to Clause 7.2.2 of the R-Codes, the City approved the LPP for advertising at its Council meeting on 10 February 2020 and is expected to adopt the final version upon the WAPC's approval on this matter.

KEY ISSUES		
<b>Consistency with WAPC Policies &amp; Planning Framework</b>	<ul style="list-style-type: none"> <li>• <i>Planning and Development Act 2005</i></li> <li>• <i>Planning and Development (Local Planning Scheme) Regulations 2015</i></li> <li>• <i>North-West Sub-regional Planning Framework</i></li> <li>• <i>State Planning Policy 7.0 Design of the Built Environment</i></li> <li>• <i>State Planning Policy 7.3 Residential Design Codes Volume 1</i></li> </ul>	Broadly consistent, some discretion required
<b>Government Considerations</b>	N/A	Choose an item.
<b>Budget</b>	None	N/A
<b>Consultation</b>	N/A	
PLANNING ASSESSMENT		
<b>R-Codes - Amendment Provisions</b>		
<p>Pursuant to clause 7.3.2 of the R-Codes, the WAPC's approval is required for the amendment of deemed-to-comply provisions of Element 5.5.1 C1, pertaining to ancillary dwellings.</p> <p>Clause 7.3.2 of the R-Codes states that local governments may, with the approval of the WAPC,</p>		

prepare local planning policies that amend certain deemed-to-comply provisions where it can be demonstrated that the amended provision:

- is warranted due to a specific need related to the particular locality or region;
- is consistent with Element Objectives of the R-Codes; and
- can be properly implemented and audited by the decision maker as part of the ongoing building approval process.

#### Warranted due to specific need

The proposed amendment is warranted for two reasons.

First, the City experiences a high rate of urban growth, and a pattern of larger new homes being built on the smaller lots typical of new suburbs is evident. In these circumstances, poorly designed ancillary dwellings are more likely to impact neighbours than they are in more established areas comprising larger lots. Therefore, a planning instrument that ensures better designed ancillary dwellings is required.

Second, in Wanneroo the single, detached dwelling remains the dominant housing type. Officers note the dearth of well-designed, smaller housing alternatives and aspire to built form that reflects the urban consolidation principles of the *North-west Sub-regional Planning Framework*, which specify the need to:

*Provide well-designed, higher-density housing that considers local context, siting form, amenity and the natural environment, with diverse dwelling types to meet the needs of the changing demographics*

The proposed amendment is intended to facilitate the delivery of higher-density housing in the form of ancillary dwellings that consider local context, siting, form, amenity and the natural environment as per the above urban consolidation principle.

Overall, the City's argument that the amendment is warranted due to the specific needs of Wanneroo is considered acceptable. The proposed amendment would allow the City to facilitate a certain type of infill accommodation without compromising the amenity of its neighbourhoods.

#### Consistent with objectives & design principles

The objectives of R-Codes clause 5.5 relevant to special purpose dwellings such as ancillary dwellings are:

- a) to ensure residential development is provided to accommodate people with or without special needs*
- b) to provide ancillary accommodation which is independent or semi-independent to residents of the single house*
- c) to ensure that dwellings for the aged and people with special needs can be provided within residential areas*
- d) to provide opportunities for affordable housing*

In addition, design principle 5.5.1 P1 for ancillary dwellings contemplates:

*Ancillary dwelling for people who live either independently or semi-independently to the residents of the single house, sharing some site facilities and services without compromising the amenity of surrounding properties*

It is satisfied that the proposed amendment is consistent with the R-Codes objectives and design principle, as:

- a) it responds to amenity issues and remains consistent with the objective of providing ancillary accommodation for people with or without special needs and the aged, as per objectives (a) and (c).
- b) it only concerns the external appearance of ancillary dwellings, therefore independence or semi-independence from a parent house as required by objective (b) would not be compromised
- c) the City acknowledges that the proposed amendment may be perceived as encouraging the use of expensive materials, which would be contrary to objective (d). It is pointed out however that the amendment to LPP 2.6 would not prohibit the use of affordable building materials, but rather ensure through the approvals process that such materials are appropriate and do not detract from the quality of the streetscape or view from surrounding properties. The proposed amendment therefore remains consistent with objective (d) and the relevant design principle.

It is also noted that the proposed amendment has no direct bearing on the basics of affordable housing, which concern factors such as dwelling size, building footprint, location, efficient use of infrastructure, access to transport and access to facilities/amenities.

#### Can be properly implemented and audited by the decision-maker

The City submits that the proposed policy provision can be properly implemented as officers/private building surveyors will be capable of determining whether ancillary dwellings are proposed with building materials that match the parent dwelling.

To guide assessments, the City has ensured the amended deemed-to-comply provisions are as objective as possible. The concept of “matching built form” is specifically defined along the lines of colour, design, elevation and building materials:

***Matching Built Form:*** means a built form for ancillary accommodation that is the same as that of the Single House to which it is ancillary – by way of colour, texture and materials used in the construction of external walls; roof material, colour and pitch; and floor to ceiling height.

It could be reasonably expected that proponents would be able to determine if their proposal satisfies the above definition. In the situation where ancillary dwelling proposals do not satisfy the deemed-to-comply provisions, a planning assessment will be required against the Local Housing Objectives listed in LPP 2.6 (see Background section of the report). These objectives provide a strong planning framework against which alternative design proposal can be audited so that the assessment process results in desirable built form outcomes.

#### Wording of proposed clauses

It is recommended that the proposed amendment is reworded to tie in better with the lead sentence C1, as follows:

*iii. The accommodation is constructed of built form that matches<sup>1</sup> the single house to which it is ancillary.*

**NOTE 1:** ‘Matching built form’ is defined in Part 1 of this policy, under the heading ‘Definitions and Interpretations.’

There would be no change to the definition of 'matching built form' in Part 1 of LPP 2.6, as a result of this modification.

### **Consistency with State Planning Policy 7.0 Design of the Built Environment**

LPP 2.6 is likely to facilitate design of ancillary accommodation in keeping with the below State Planning Policy 7.0 *Design of the Built Environment* Design Principles, and therefore it is considered to have planning merit:

*1. Context and character. Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.*

*3. Built form and scale. Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.*

*6. Amenity. Good design provides successful places that offer a variety of uses and activities while optimising internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.*

*10. Aesthetics. Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses*

### **Unintended consequences of policy**

If amended, LPP 2.6 is likely to have several positive effects as discussed in detail above. Unintended consequences may include an increase in costs associated with ancillary accommodation and time delays associated with approvals and administration.

The City submits that LPP 2.6 would not necessarily lead to an increase in ancillary accommodation costs. Proponents would still be able to use inexpensive materials provided they are assessed as consistent with the amenity of the local area. Ancillary accommodation proposals are no more likely to experience processing delays than any other type of development proposals. Lastly, administration time for assessing proposals will be compensated for by an increase in quality outcomes. The City intends to review the policy effectiveness in 2-years time.

### **Conclusion**

The proposed amendment to the deemed-to-comply provisions of R-Codes clause 5.5.1 C1 is likely to facilitate ancillary dwellings that are more in keeping with the character and amenity of the area surrounding them.

The proposed amendment is considered consistent with the objectives and design principles of the R-Codes, and can be properly implemented. Accordingly, the Committee's support for the proposed amendment under R-Codes clause 7.3.2 is recommended.

**RECOMMENDATION**

***That the Statutory Planning Committee resolves to approve the proposed amendment to the deemed-to-comply provisions of Clause 5.5.1 C1 Ancillary Dwellings, pursuant to Clause 7.3.2 of State Planning Policy 7.3 Residential Design Codes Volume 1 – Residential, as included in the City's Local Planning Policy 2.6 Ancillary Accommodation, subject to the following modification:***

***Clause 2.1 C1 iii is changed to read:***

***iii. The accommodation is constructed of built form that matches<sup>1</sup> the single house to which it is ancillary.***

***NOTE 1: 'Matching built form' is defined in Part 1 of this policy, under the heading 'Definitions and Interpretations.'***

**ATTACHMENTS**

Attachment 1 - City of Wanneroo draft Local Planning Policy 2.6 Ancillary Accommodation  
Attachment 2 - Photos of City of Wanneroo Ancillary Accommodation

Owner	Planning and Sustainability
Implementation	Month TBA 2020
Next Review	Month TBA 2024

## PART 1 – POLICY OPERATION

### Policy Development and Purpose

This Local Planning Policy has been prepared under Schedule 2, Part 2 of the Deemed Provisions of the Planning and Development (Local Planning Schemes) Regulations 2015 and is to be read in conjunction with the City of Wanneroo's (the City) District Planning Scheme No. 2 (DPS 2).

The purpose of this Local Planning Policy (Policy) is to provide guidance for the development of ancillary accommodation in the City of Wanneroo.

This Policy forms part of the City of Wanneroo Local Planning Policy framework, and should be read in conjunction with State Planning Policy 7.3: Residential Design Codes Volume 1 (R-Codes).

Where this Policy is inconsistent with the provisions of an approved local development plan, activity centre plan or structure plan, the provision of an approved local development plan, activity centre plan or structure plan prevails.

### Policy Objectives

1. To support the development of ancillary accommodation that is designed to complement the local character.
2. To provide criteria that distinguishes ancillary accommodation from other dwelling types in the City of Wanneroo.
3. To ensure that an appropriate level of amenity is provided for the benefit of ancillary accommodation occupants.
4. To ensure that the appearance, materials and finishes used for ancillary accommodation development does not compromise the visual amenity, built form character and the natural environment of the surroundings.

### Definitions and Interpretations

**Ancillary Accommodation:** means the same as 'ancillary dwelling' as defined in Appendix 1 of the R-Codes:

*"Self-contained dwelling on the same lot as a single house which may be attached to, integrated with or detached from the single house."*

The City considers 'self-contained dwellings' as living quarters that could be occupied independently from another dwelling, such as a main dwelling on the same lot. For living quarters to be occupied independently, it should include a bathroom, toilet, kitchen and laundry facility.

Self-contained ancillary accommodation could either be:

- Detached from a main dwelling on the same lot; or
- Attached or integrated into one building with the main dwelling. For example, ancillary accommodation could be separated from a main dwelling within the same building by a common space (such as a garage, living area or common laundry), walls and/or internal doors.

Detached extensions to a Single House or Grouped Dwelling that cannot be occupied independently (such as games rooms, sleep-outs, pool rooms and sewing rooms) are not considered to be ancillary accommodation.

**Matching Built Form:** means a built form for ancillary accommodation that is the same as that of the Single House to which it is ancillary – by way of colour, texture and materials used in the construction of external walls; roof material, colour and pitch; and floor to ceiling height.

## PART 2 – GENERAL POLICY PROVISIONS

### 1.0 Local Housing Objectives

The purpose of the following Local Housing Objectives are to guide the City’s judgement on the merits of ancillary accommodation proposals. The Local Housing Objectives should be read in conjunction with the Design Principles of the R-Codes, where the R-Codes apply. For ancillary accommodation development that is not subject to the R-Codes, the Local Housing Objectives will be applied as Design Principles.

- 1.1 To provide development of ancillary accommodation that can be occupied independently or semi-independently of the Single House situated on the lot.
- 1.2 Development and design of ancillary accommodation that applies the use of materials with a texture, colour, elevation, bulk, scale and material finish that does not detract from streetscape or the visual amenity of neighbouring properties.
- 1.3 Design which does not compromise the amenity of neighbouring properties and the streetscape by way of overlooking and overshadowing.
- 1.4 Development situated and undertaken in a manner that does not compromise the natural surroundings or environmental attributes that may exist on a site.

### 2.0 Application of the R-Codes and Replacement Deemed-to-Comply Provisions

2.1 Pursuant to Clause 7.3.2 of the R-Codes, this Policy amends the deemed-to-comply requirements prescribed in Clause 5.5.1 of the R-Codes. The amended deemed-to-comply requirements relating to ancillary accommodation are provided below:

- C1 Ancillary dwelling associated with a single house and on the same lot where:
- i. the lot is not less than 450m<sup>2</sup> in area;
  - ii. there is a maximum plot ratio area of 70m<sup>2</sup>;

- iii. ancillary accommodation constructed with a matching built form<sup>1</sup> as the single house to which it is ancillary.  
*NOTE 1: The term 'matching built form' is defined in Part 1 of this Policy, under the heading 'Definitions and Interpretations'.*
- iv. parking provided in accordance with Clause 5.3.3 C3.1 of the R-Codes; and
- v. complies with all other R-Code provisions, only as they apply to single houses, with the exception of Clauses:
  - (a) 5.1.1 Site area;
  - (b) 5.2.3 Street surveillance (except where located on a lot with secondary street or right-of-way access); and
  - (c) 5.3.1 Outdoor living areas.

2.2 If the deemed-to-comply provisions stipulated in Section 2.1 above cannot be satisfied, an ancillary accommodation proposal must then satisfy the design principles of the R-Codes and the Local Housing Objectives provided in Section 1 above.

2.3 Ancillary accommodation proposals that do not meet the deemed-to-comply requirements stipulated in Section 2.1 above are not exempt from development approval under Clause 61 of the DPS 2 Deemed Provisions.

### 3.0 Ancillary Accommodation Provisions where the R-Codes do not Apply

In addition to the relevant DPS 2 development provisions, development of ancillary accommodation on land where the R-Codes do not apply should satisfy the following requirements:

- 3.1 Ancillary accommodation must be associated with a single house, which either exists or will be developed concurrently on the same lot.
- 3.2 No more than one ancillary accommodation can be constructed on a lot.
- 3.3 Development and design of ancillary accommodation should apply the use of materials with a texture, colour, elevation, bulk, scale and material finish that does not detract from streetscape, local character or the visual amenity of neighbouring properties.
- 3.4 The plot ratio area<sup>2</sup> of any ancillary accommodation should not exceed 70m<sup>2</sup>, except on lots greater than 4,000m<sup>2</sup> in area where the plot ratio area of any ancillary accommodation should not exceed 100m<sup>2</sup>.  
*NOTE 2: In the context of this Policy, the term 'plot ratio area' means the same as it is defined in Appendix 1 of the R-Codes.*
- 3.5 Notwithstanding the provisions outlined in Section 2.3 above, ancillary accommodation with a floor area exceeding 100m<sup>2</sup> may be considered where a landowner/applicant can demonstrate to the satisfaction of the City that:
  - Exceptional circumstances exist that warrant the need for the ancillary accommodation to have a floor area exceeding 100m<sup>2</sup>; and
  - The ancillary accommodation will be ancillary to the single house on the subject site.



Tees Court, Mindarie – Ancillary Accommodation on the right.



Main dwelling – Tees Court Example



Ancillary Accommodation – Tees Court Example



Southsea Road, Quinns Rocks – Ancillary Accommodation on the right



61 Nannatee Way, Wanneroo



Main Dwelling from the front – 61 Nannatee Way, Wanneroo



Ancillary dwelling in its context with existing Single Houses – 61  
Nannatee Way, Wanneroo



113 Nannatee Way, Wanneroo – ancillary accommodation on the right



Jerrail Street, Yanchep - ancillary accommodation



<b>REPORT TO</b>	Statutory Planning Committee		
<b>Meeting date</b>	19 May 2020	<b>File number</b>	TPS/2490
<b>Subject</b>	City of Swan Local Planning Scheme No. 17, Amendment No. 150 – for final approval		

**KEY MATTERS IDENTIFIED BY THE DEPARTMENT OF PLANNING, LANDS AND HERITAGE**

*The key matters outlined below are those identified by the Department of Planning, Lands and Heritage and do not fetter the consideration of the proposal by the Western Australian Planning Commission, its Committees or the decision-maker.*

Amendment No. 150 seeks to replace the existing ‘Machinery and Vehicle Sales and Service’ listed as Additional Use No. 36 in Schedule 2 of Local Planning Scheme No. 17 (LPS 17) with a new additional use of ‘Industry – General’, and include associated provisions. The new additional use would be restricted to ‘Bitumen Processing’, subject to specific conditions.

In consideration of this proposal, the Department of Planning, Lands and Heritage has identified the following key matters for consideration by the Statutory Planning Committee:

- Whether the proposed amendment is consistent with the objectives of the Resource zone under LPS 17;
- Whether the proposed amendment is consistent with the strategic intent of the Draft City of Swan Local Planning Strategy and the WAPC North-East Sub-regional Planning Framework;
- Whether the proposed amendment is consistent with relevant State Planning Policies, including Draft State Planning Policy 4.1 – Industrial Interface (SPP 4.1) and State Planning Policy 2.5 – Rural Planning (SPP 2.5); and
- Whether it has been appropriately demonstrated that there is a need for the proposed additional use to occur specifically at the subject site.



<b>REPORT TO</b>	Statutory Planning Committee		
<b>Meeting date</b>	19 May 2020	<b>File number</b>	TPS/2536
<b>Subject</b>	City of Vincent Local Planning Scheme No. 2, Amendment No. 5		
<b>KEY MATTERS IDENTIFIED BY THE DEPARTMENT OF PLANNING, LANDS AND HERITAGE</b>			
<p><i>The key matters outlined below are those identified by the Department of Planning, Lands and Heritage and do not fetter the consideration of the proposal by the Western Australian Planning Commission, its Committees or the decision-maker.</i></p>			
<p>Whether restricting the number of dwellings that may be permitted on each lot to a maximum of two, unless an entire or significant portion of a dwelling constructed prior to 1940 and which maintains all character elements of that building as viewed from the public realm is retained, is effective in protecting the established residential neighbourhood and streetscape character of the area coded R40 bounded by Vincent Street, Beaufort Street, Walcott Street and Fitzgerald Street.</p>			