Wedgefield
Port Hedland

WEDGEFIELD INDUSTRIAL ESTATE STRUCTURE PLAN

August 2019

Prepared for

LandCorp

This structure plan is prepared under the provisions of the Town of Port Hedland Town Planning Scheme No. 5.

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

7 July 2011

In accordance with Schedule 2, Part 4, Clause 28 (2) and refer to Part 1, 2. (b) of the *Planning and Development (Local Planning Schemes) Regulations 2015.*

Date of Expiry: 19 October 2025

TABLE OF MODIFICATIONS

Modification Number	Description of Modification	Date Endorsed by Council	Date endorse by WAPC
0	Original Adoption.	Adopted by Council at the Ordinary Meeting of Council Held on 22 September 2010	
1	Introduction of general and noxious industry uses within the Transport Development area.		07/07/2011
2	Removal of Control Area 1 and all relating provisions. Updating all references to Control Area 2, to Control Area 1.		21 August 2019
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1. INTRODUCTION

1.1 BACKGROUND

The Wedgefield Industrial Estate Structure Plan (WIESP) has been prepared for an approximately 280ha area of land located to the east and south east of the existing Wedgefield industrial area, within the Town of Port Hedland (**Plan 1 – Aerial Overview**). The WIESP has been prepared to coordinate the strategic expansion of Wedgefield and provides for a range of industrial uses. The WIESP includes a land use review of the existing Wedgefield industrial area, but does not formally include it within the Structure Plan area.

The WIESP aims to be consistent with the recommendations of the Port Hedland Land Use Master Plan (LUMP) adopted in 2007, which identifies the land surrounding the existing Wedgefield industrial area as the most appropriate location for the expansion of general industry. The LUMP also highlights the large number of caretaker's dwellings located in the existing estate and the need to ensure the sensitivity of these uses are acknowledged in any new development of the surrounding area. Both of these elements of the LUMP are considered in this document.

1.2 THE PROCESS

The WIESP was prepared to meet the Structure Plan statutory planning requirements of the Town of Port Hedland.

The WIESP was prepared following extensive consultation throughout 2008 and 2009 with agencies including:

- LandCorp
- Town of Port Hedland (ToPH)
- Main Roads Western Australia (MRWA)
- Port Hedland Port Authority (PHPA)
- Department of Planning (DoP) - (formerly Department for Planning & Infrastructure (DPI))
- Department of Environment and Conservation (DEC)
- Horizon Power (HP)

1.3 AIMS & OBJECTIVES

The WIESP has been developed in response to demand for industrial land to service the transport, mining, construction and export markets in Port Hedland and the broader Pilbara. In this context, the proximity of the new WIESP sites to the existing industrial estate and their location on Great Northern Highway at the 'entry' to Port Hedland are key considerations, with the main objectives being:

- The development of a shared long term vision between key stakeholders including the ToPH, LandCorp, Port Hedland Port Authority (PHPA), Main Roads Western Australia (MRWA) and, in particular, residents and business operators for the orderly expansion and improved development standard of the Wedgefield industrial area;

- Providing appropriately located and sized new land-use precincts that will sufficiently accommodate demand for the release of light industry, general industry transport and other critical industrial uses;

- Ensuring new land-use and development considers issues of amenity and land use sensitivity for development within the existing Wedgefield industrial area;

- Facilitating an attractive and landscaped industrial estate, particularly along Great Northern Highway (GNH), which is the main entrance to Port Hedland and provides road access between Port Hedland and South Hedland;

- The orderly provision of services and infrastructure including power, water, telecommunications and an expanded road network which accommodates the range of industrial uses and transport/infrastructure demands anticipated; and

- The planned orderly release of industrial land as part of an ongoing program to ensure regular industrial land supply.

1.4 MARKET CONSIDERATIONS

In order to refine the likely demand for industrial land in Wedgefield, LandCorp released an Industrial Land Survey to the public. This survey was made available on the LandCorp website and a supplementary survey was also conducted on paper. The survey results were finalised January 2009 and identified the following key points:

- There remains strong demand for industrial land;
- Strong interest was expressed for light industrial land with lots of less than 5,000m2, though some respondents sought up to 12,000m2 in size and one party expressed interest in a 4ha lot; and
- Interest in Transport development sites related to lot sizes of 5000m² up to 5ha preferred.

In response to the above market feedback and the recommendations of the LUMP, a number of areas have been identified for development and release by LandCorp. An overview of the development areas is contained at **Plan 2 – Industrial Planning Precincts Plan**.

1.5 PROJECT COORDINATION & CONSULTING TEAM

A number of site visits to Port Hedland were undertaken, with several key stakeholder meetings held. Meetings conducted throughout 2008 and 2009 were attended, at various stages, by the following Technical Advisory Group (TAG) participants:

Planning TAG Meeting	Infrastructure TAG Meeting
Paul Schneider (LandCorp)	Paul Schneider (LandCorp)
Jermayne Fabling (WGE)	Jermayne Fabling (WGE)
Justin Zelones (WGE)	Justin Zelones (WGE)
Tom Carroll (RPS KS)	Tom Carroll (RPS KS)
Rod Dixon (RPS KS)	Rod Dixon (RPS KS)
Garry Sullivan (Whelans)	Garry Sullivan (Whelans)
Terry Sargent (ToPH)	Terry Sargent (ToPH)
Terry Dodds (ToPH)	Terry Dodds (ToPH)
Richard Bairstow (ToPH)	Richard Bairstow (ToPH)
Jim Kaucz (DoP)	Justin McKirdy (MRWA)
Wanda Kaucz (DoP)	Dave Pearson (MRWA)
	Frank Lyons (MRWA)
	Lynne Nanini (MRWA)
	Andre Bush (PHPA)
	Lyle Stanley (PHPA)
	Bob Cirulis (Horizon Power)

In addition to this, a number of Project Control Group (PCG) meetings were held with the project team, with attendance at different stages from members of the project team including the planning, engineering, environmental and landscape consultancies as discussed below.

This report has been prepared utilising the input of a range of project consultants comprising:

- Project Manager – LandCorp
- Town Planning and Urban Design – RPS Koltasz Smith / Urbis
- Civil Engineering Consultants: Wood & Grieve
- Environmental Consultants: GHD
- Traffic & Transport Consultants: GHD
- Landscape Consultants: UDLA
- Storm Surge / Coastal Modelling: MP Rogers
- Surveyors: Whelans
- Anthropological Consultants: Anthropos Australis

2. CONTEXT, OWNERSHIP & LAND USE

2.1 REGIONAL CONTEXT

The WIESP area is situated between South Hedland and Port Hedland. The site has frontage to Great Northern Highway, being the main entry road to Port Hedland and a primary transport route for a high number of heavy vehicles travelling into Port Hedland. The southern edge of the WIESP area directly adjoins the Port Hedland - Goldsworthy railway. The industrial rail lines service the surrounding mining operations and allow for the transport of various natural resources to Port Hedland and Finucane Island for export. The Port Hedland airport is similarly in close proximity, being directly east of the WIESP area.

The Boodarie Strategic Industrial Estate is located approximately 8 kilometres south west of the WIESP area, which will accommodate strategic industry supporting downstream processing opportunities, support industry and noxious industrial uses requiring buffers to sensitive land uses. The site is not serviced and generally awaiting a foundation proponent.

South Creek lies to the immediate west of the WIESP area.

A full overview of the regional context surrounding the WIESP is provided as **Plan 3 - Regional Context Plan**.

2.2 LOCAL CONTEXT

The WIESP area directly adjoins the existing Wedgefield industrial area, which is recognised as the Town of Port Hedland's main industrial area. The Wedgefield industrial area is almost fully developed except for a number of recently released lots within "Light Industrial Area 1" (LIA1), Light Industrial Area 2 (LIA2) precinct, and Light Industrial Area 3 (LIA3). The Wedgefield industrial area is currently serviced by a Horizon Power substation, which is located within the existing industrial area.

As the predominant industrial precinct in Port Hedland, the Wedgefield industrial area includes a variety of land uses ranging from light to heavy in nature. The industrial area also includes a high number of caretaker dwellings and a transient workforce accommodation facility, both of which are considered sensitive uses under the Environmental Protection Agency's Guidance Statement No.3. As part of the strategy to manage the hazard to existing residents, uses with larger impacts and buffer requirements should be located within the Transport Development area.

Further discussion on these uses, their buffers and the proposed use of transitional land uses in the WIESP occurs later in this document.

A full overview of the local context surrounding the WIESP is provided as **Plan 4 - Local Context Plan.**

2.3 LAND OWNERSHIP – WIESP AREA

Land ownership within the WIESP area includes a mixture of reserved/vested land and Unallocated Crown Land (UCL). Implementation of the project is made easier given that all of the land is under the control of state or local government, although land parcels the subject of reserve vesting orders and lease agreements will require review. **Table1** below shows the extent of land reserved within the WIESP, the WIESP precinct within which it lies and the land details.

The northern edge of the WIESP area includes land lying within the Port Hedland Port Authority area. For the purposes of consistency in planning, the PHPA land area has been generally adhered to in designing both road layout and new lot boundaries. This WIESP provides a coordinated lot and road layout between the PHPA land and the balance of the Wedgefield expansion areas, though it does not seek to rezone the PHPA land, or formally include it within the WIESP under LPS5. (See **Plan 5 – Landownership Plan**).

Table 1 – Landownership Schedule (as at December 2009)

Precinct No	Lot No	Plan No	Total Lot Area (ha)	Total Area within Development Plan Area	Ownership Details
Light Industrial Area 3	5908	DP 192295	10.395	10.395	State of WA
Light Industrial Area 4	501	DP 61035	8.48	8.48	State of WA
Light Industrial Area 5	502	DP 41485	56.553	56.553	State of WA
	503	DP 40616	197.537	12.24	State of WA
Transport Development Area	503	DP 40616	197.537	176.36	State of WA
	5553	P186580	4.0	4.0	State of WA
	5858	191016	2.890	2.890	DPI – Vested with ToPH
	5859	191016	6.35	6.35	State of WA
	5874	-	0.163	0.163	State of WA
	5873	-	0.254	0.254	DPI
Industry Area	300	DP47358	2.539	2.539	State of WA
	301	DP47358	1.980	1.980	State of WA
	503	DP40616	197.537	5.743	State of WA
	5871	P192054	0.928	0.928	State of WA
	5872	P192054	0.333	0.333	State of WA

2.4 LAND OWNERSHIP – EXISTING WEDGEFIELD

The WIESP area is essentially an expansion of the existing Wedgefield estate, and accordingly, an assessment was made during late 2008 / early 2009 of existing land use within the established Wedgefield area. This survey of land use was compiled through:

- On-site site observation;
- Information from the Town of Port Hedland; and
- Information directory advice.

Plan 6 - Land Use Assessment Plan shows the outcome of the assessment. While every effort has been made to test the accuracy, it should be recognised that as circumstances change and businesses relocate or open, the documented land uses may vary. Importantly, every effort has been made to list more sensitive land uses, or those likely to require land use separation.

2.5 KEY DEVELOPMENT PRECINCTS

The WIESP area comprises three distinct land areas separated by the existing regional and local road network:

- The first parcel of land is bound by Great Northern Highway to the south-east; Cajarina Road to the North West; the Port Hedland-Goldsworthy Railway to the south-west; and the Pinga Street to north east. The WIESP recognises this area as comprising LIA3 and LIA4.

- The second parcel is a triangular parcel of land bound between the Port Hedland-Goldsworthy Railway to the south; Great Northern Highway to the west; and Wallwork Road to the east. The land incorporates a large portion of the Greater Northern Highway road reserve. The WIESP recognises this area as comprising LIA 5.

- The third parcel, being the largest, is located between the existing Wedgefield industrial area, Great Northern Highway and the Port Hedland Port Authority lease area. The WIESP recognises this area as the Transport Development (TD) area.

3. LOCAL PLANNING CONSIDERATIONS

3.1 LOCAL PLANNING SCHEME NO.5 (LPS5)

A significant portion of the land within the WIESP was rezoned as a part of the gazettal of Amendment 24, to Light Industry and Transport Development in 2011 to ensure consistency with this Structure Plan. **(See Plan 7 –Zoning Plan).**

The use of these zones in conjunction with this Structure Plan will provide for consistency in land use and development control. Notwithstanding a number of minor zone amendments along the eastern periphery of the existing Wedgefield industrial area, the function of the existing industrial area is not affected by this proposal.

With the *Planning and Development (Local Planning Schemes) Regulations 2015* coming into effect on 19 October 2015 and introducing the deemed provisions to be included in all local planning schemes, which included the preparation of Structure Plans. As such Structure Plans became due regard planning instruments in the planning framework. Upon commencement of the Regulations the deemed provisions took effect in all local planning schemes.

Clause 5.6.12 and 5.6.15 of LPS5 sets forth the requirements for the preparation of a Structure Plan in accordance with part 4 of the deemed provisions prior to considering subdivision or development proposals for land within the Transport Development zone and the Light Industry zone respectively. Part 4 of the deemed provisions deals with Structure Plans, including matters that should be addressed when preparing one. Structure Plan areas within the Town of Port Hedland are set out in Appendix 3 of LPS 5 .

In addition to the above, it is acknowledged that Appendix 2 of LPS5 currently incorporates an additional use register for Caretakers' Dwellings within the existing Wedgefield area, as well as a planning control mechanism prohibiting their further proliferation. All of the above elements are examined in the Structure Plan section of this report to minimise the potential for future land use conflict and respond to the stated requirements of LPS5.

3.2 PORT HEDLAND LAND USE MASTER PLAN (LUMP) (SUPERSEDED)

The LUMP (**Plan 9**) is intended to guide the growth and development of Port Hedland through the next 20-25 years. Following its adoption by the Town of Port Hedland, it was endorsed by the Western Australian Planning Commission (WAPC) at its September 2008 meeting.

The LUMP notes the following of relevance:

> *"Despite the vast area currently devoted to industrial use, there is a critical shortage of land available for industrial expansion. Wedgefield is currently the town's main dedicated industrial precinct, but its capacity to satisfy the present demand is severely limited. Because of the density of caretakers' dwellings and more permanent homes that has evolved in the area, the addition of further high impact industrial uses would only exacerbate existing land use conflicts. Furthermore, Wedgefield is almost fully utilised with only a small section on Manganese Street still to be developed, offering lots of approximately 1 hectare in size." (p13)*

The LUMP also proposes the following general principles on industrial land use:

> *"2.4(a) Contain the spread of industrial uses in well planned, orderly precincts that are located to take advantage of existing infrastructure wherever possible, to support existing industrial development, and to avoid conflicts with adjacent land uses.*
>
> *2.4(b) Identify appropriate locations for different types of industrial uses, promoting synergies among related businesses and avoiding conflicts between noxious and light industrial uses.*
>
> *2.4(c) Establish high standards of design and construction quality and landscape development to protect the 'view from the road' on Great Northern Highway and the entries to South Hedland, Wedgefield and the Port Area." (p15)*

Ultimately the LUMP makes a number of recommendations regarding industry that are of relevance to Wedgefield. These are stated below in *italics* with the project team's response to the item following:

- *Proposed industrial expansion area to include "General Industry/Transportation Uses" east of Wedgefield to Great Northern Highway*: This is recognised within the WIESP and was reflected in Scheme Amendment No. 65 through a rezoning to the 'Transport Development' zone. The precinct will seek to accommodate demand for transport / haulage uses seeking to operate from larger premises or establish themselves in the Pilbara. It will not accommodate the full range of General Industry uses, as further consideration on the appropriateness of these uses identified that they are to be accommodated for in the Boodarie Support Industry Precinct, where land use buffer requirements can be met.

- *Light Industry to be located south of Wedgefield through to the Goldsworthy rail line and east to the Airport land*: This is acknowledged in the WIESP.

- *In response to a range of incompatible land uses within the existing Wedgefield Industrial Area, rezone the land to "Light Industry" making any heavier "noxious" uses non-conforming, and converting existing general industrial uses to "additional use" for a period of 10 years from the date that new land suitable for general industrial use is released for development. Following this 10 year period, all general industrial uses in Wedgefield then become non-conforming also:* As stated, this document deals with LUMP's recommendations for the expanded Wedgefield rather than review or rationalisation of the existing Wedgefield industrial area. The ability to implement this LUMP recommendation will become clearer following the release of new General Industry (noxious use) land, facilitating the relocation of general / noxious industries from the existing Wedgefield industrial area.

- *Notwithstanding the adopted position to resolve the incompatibility of land use within Wedgefield, including in relation to the existing Tox Free operation, no commitments or funding have been secured:* As noted above, any ability to relocate more general and/or noxious land uses from existing Wedgefield will become clearer following the release of noxious use and general industry (noxious use) land at the southern end of Boodarie.

- *Under the Light Industrial zone proposed for Wedgefield, caretakers' dwellings should be permitted with Council approval ('D') and regulated through the adoption of a Local Planning Policy. No further caretakers' dwellings, however, will be permitted until noxious and general industrial uses have been relocated:* The proposed WIDEP does not seek to include Caretaker's Dwellings within the new Light Industry zone or Transport Development zone.

- *To protect Wedgefield from the impacts of a General Industry zoning in surrounding areas, the use of a 500m buffer be applied within which only low impact industrial uses may be located*: The use of a generic buffer of 500m was suggested on the basis of a broad General Industry zone being introduced around the existing Wedgefield. As this is not to be the case, with new land release being either Light Industrial, or Transport related, no generic buffer is proposed.

- As shown in Figure 5 of the LUMP, an indicative 500m buffer to the privately owned waste water treatment plant on Lot 1621 Schillaman Street is applicable, with a 1km buffer to the Tox Free facility located on Lot 5857 Schillaman Street.

- *Any review of local planning policy for caretakers' dwellings have regard to the greater issues for Port Hedland and Wedgefield beyond any need for on-site security which often relates to a financial capacity decision. Such a review may lead to the permissible size of caretaker's dwellings being considered, or the adoption of a new land use category such as "business residence:* As stated, the location of caretaker dwellings has been recognised as a land use issue, though no new caretaker dwellings are contemplated. Consistent with this approach, no review of local planning policy is sought as part of the WIESP.

3.3 PILBARA'S PORT CITY GROWTH PLAN

This Town of Port Hedland document provides high level, strategic guidance for the future development of South Hedland, Port Hedland and surrounding areas. The Town of Port Hedland and WAPC endorsed the Pilbara's Port City Growth Plan in December 2012 as the Town's Local Planning Strategy, replacing the Land Use Master Plan (LUMP) 2007.

The growth plan seeks to deliver sustained and diversified economic growth, population growth and to enhance community and environmental opportunities through the revitalisation of the Town of Port Hedland locality. The key connections between economic growth and population growth are highlighted consistently within the document.

The growth plan identifies Wedgefield as Precinct 6 – Wedgefield Industry and Logistics:

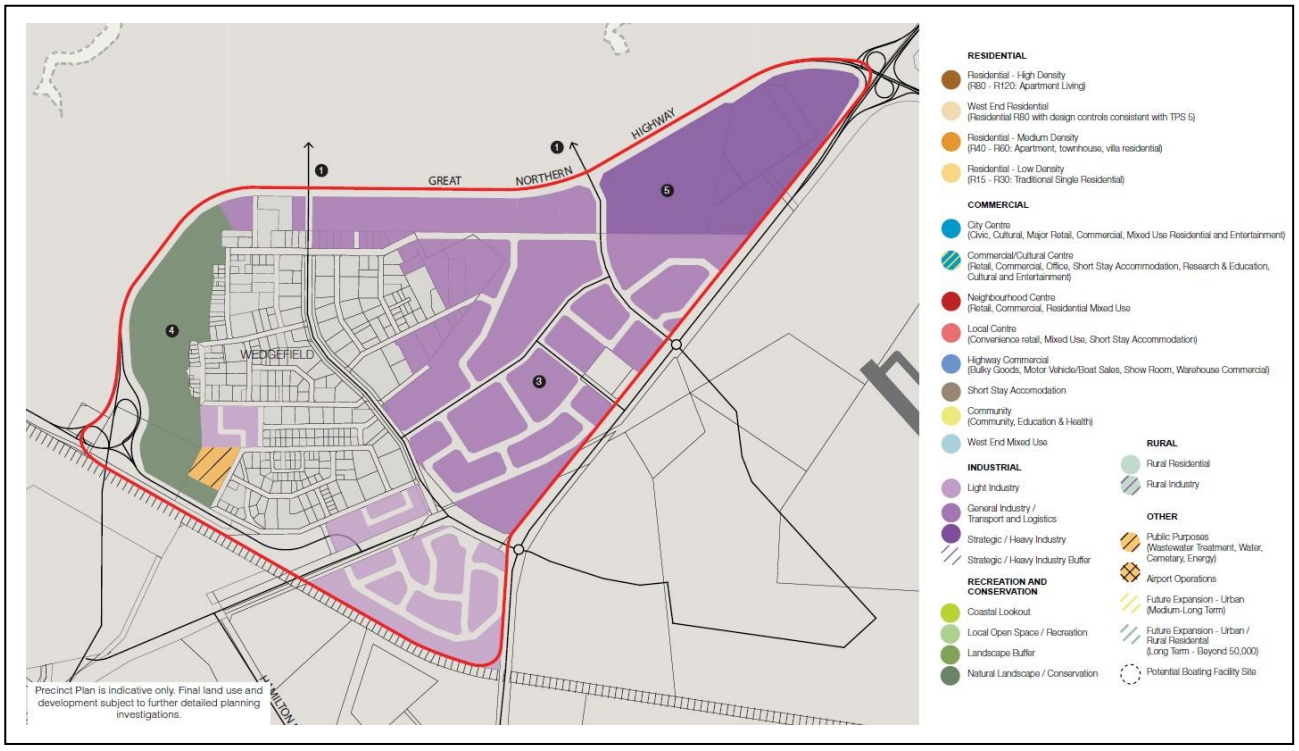
"The Wedgefield Industry & Logistics Precinct supports our City's primary Light Industrial and Transport Industry businesses. Expansion of the precinct will continue to provide greater diversity of industrial land choice and act as the catalyst for improved amenity within established Wedgefield."

The growth plan allows for flexibility in planning areas through the use of the precincts. This allows local level planning to occur in a manner which responds to the opportunities and challenges that occur as the Port Hedland locality grows. The Wedgefield Industry & Logistics Precinct facilitates a mix of existing light and heavier industrial uses, as well as caretaker residential and transient workers accommodation surrounded by undeveloped vacant land and containing a truck stop / service facility off Great Northern Highway. The Precinct is bound by rural landscape to the east and areas of mangrove environments to the north.

Industrial growth within Port Hedland is to allow for the orderly release of industrial land to allow for economic growth across a range of industries.

Land within planned industrial areas such as Boodarie SIA is to be released in order to facilitate the movement of heavier/noxious industry from the existing Wedgefield Industrial Area. This will allow for significant redevelopment opportunities alongside the release of light industrial and transport logistics land. The WIESP is reflective of the visions and strategies set out for industrial development in Port Hedland.

In order to facilitate the implementation and delivery of the Growth Plan's objectives, consideration is required in regard to certain development constraints which include, air traffic obstacle height limitations, hazard risk management assessments in regards to flooding and inundation, transport planning and provision for heavier use industrial development in short to medium terms.



Plan 10 - Pilbara's Port City Growth Plan: Precinct 6 – Wedgefield Industry & Logistics

3.4 PORT PLANNING STUDY AND ULTIMATE DEVELOPMENT PLAN 2007

This Port Hedland Port Authority document seeks to review and provide updates on the 2003 Port Planning Study and acknowledges the significant increases in exports through the Port and the resultant changes to land use requirements in the region. The Port Planning Study (PPS) and Ultimate Development Plan (UDP) also makes specific reference to the establishment of the Boodarie Industrial Estate as a General Industry Estate to service heavier and possibly more noxious industries, with the PHPA area north of Wedgefield providing for industrial uses in support of Boodarie. **(**refer **Plan 9 – Port Hedland Planning Study Ultimate Development Plan (UDP))**

Importantly, the PPS explores a number of scenarios for the future development of the Inner Harbour via a short- term (5 year) Development Plan and a number of longer term options (20+ years). While the role of the Port Authority and the likely development within the port area is specific to port activities, it is important to recognise the potential impacts of increased industrial activities directly north of Wedgefield, within the PHPA area. This, together with Boodarie, highlights the need for coordination with the PHPA in regard to industrial land use and access to them.

3.5 PORT HEDLAND INDUSTRIAL LAND STRATEGY 2004

While this "PHILS" report is now somewhat superseded, with many of the key recommendations reiterated in the LUMP, there is a significant amount of commentary on the future of the Wedgefield Industrial area which bears relevance to the WIESP.

The PHILS report suggests that the retention and acknowledgement of existing caretaker dwellings within Wedgefield should be formalised through the establishment of a 'Mixed Use Industrial/Residential' or 'Live/Work Industrial' precinct, with the preparation of an appropriate planning strategy to ensure that a greater level of amenity is provided in the area. This approach is less than ideal from a planning perspective given the significant risk of land use conflicts within Wedgefield in the absence of alternative industrial land. As a future exercise, in the context of an established WIESP area, and potential relocation of more polluting industries out of the existing Wedgefield estate, rezoning to a "lighter" industrial zone would be entirely appropriate.

The PHILS report also suggested that more intensive industrial uses, such as storage/warehousing, transportation, building and construction, prefabrication, mechanical maintenance and repairs, etc, be located away from the existing caretaker' dwellings. This approach is consistent with what is proposed as part of the WIESP, with a designated transport/logistics precinct and no new caretaker dwellings proposed.

3.6 STATE PLANNING POLICY 3.7 - PLANNING IN BUSHFIRE PRONE AREAS

State Planning Policy 3.7 - Planning in Bushfire Prone Areas (SPP 3.7) came into effect in December 2015. The purpose of SPP 3.7 is to implement effective, risk-based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure. SPP 3.7 requires that planning for bushfire needs to be considered at every stage of the planning process. A large portion of the WIESP area is designated as bushfire prone. Subsequently, as a requirement of SPP 3.7, a Bushfire Attack Level (BAL) assessment and subsequent Bushfire Management Plan (BMP) may be required to address the requirements of the policy.

3.7 STATE PLANNING POLICY 4.1 - STATE INDUSTRIAL BUFFERPOLICY

This WAPC's State Planning Policy 4.1 - State Industrial Buffer Policy (SPP4.1) provides guidance with respect to the allocation of a 'buffer area' around industry, within which sensitive land uses are prohibited or subject to controls to protect against the impacts of the industrial uses. This policy acknowledges the role of the EPA's *Guidance for the Assessment of Environmental Factors No. 3* document in its application of generic buffers, albeit acknowledging the generalised nature of the buffer distances.

Importantly, the draft statement of planning policy indicates that in the instance where site specific modelling is not undertaken, any assessment of a proposed project will be assessed against the buffer distances outlines in table 2.2 of the EPA's *Guidance for the Assessment of Environmental Factors No. 3 – Separation Distances between Industrial and Sensitive Land Uses*. Both documents are of direct relevance to the Wedgefield project in providing guidance on the minimisation of conflict between industrial activities and sensitive land uses.

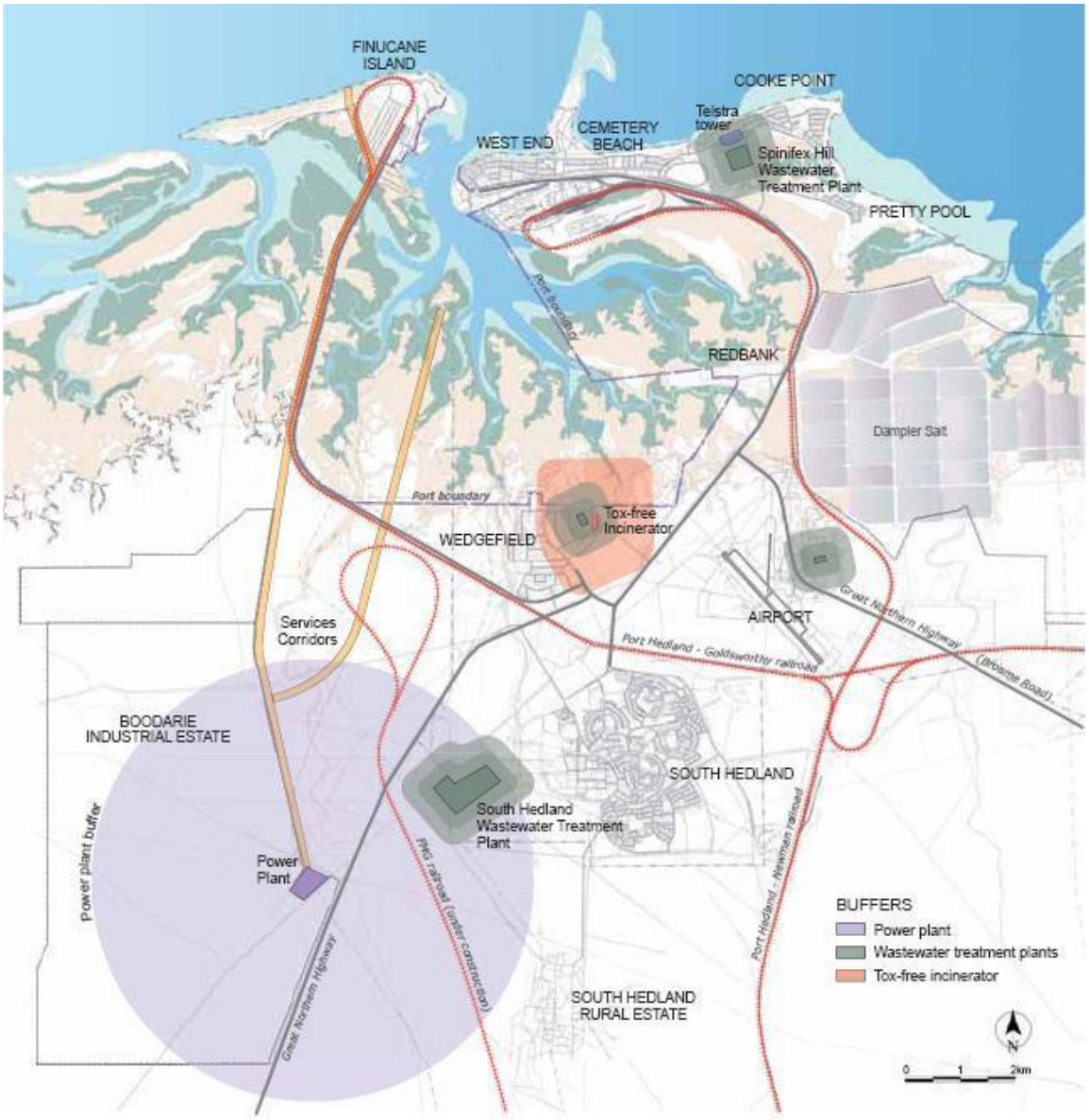
The two current uses within the existing Wedgefield area to which this policy specifically applies are the Tox Free facility and a privately owned Waste Water Treatment Plant.

The description of industry under the EPA's policy that best describes the Tox Free facility as 'Incineration - for biomedical, chemical or organic waste', with an applicable buffer of 500-1000m (based on size). A wastewater treatment plant is not allocated a generic buffer distance under the EPA's policy, with reference made to ongoing buffer studies in progress to determine appropriate separation distances. Given that no sensitive uses are proposed as part of the WIESP, these buffer requirements are acknowledged but do not materially impact on the WIESP.

3.8 EPA GUIDANCE STATEMENT – ASSESSMENT OF ENVIRONMENTAL FACTORS NO. 3

The Environmental Protection Authority (EPA) Guidance Statement for the Assessment of Environmental Factors No.3 allocates generic separation distances between industrial and sensitive uses to avoid land use conflicts. For the purposes of the Wedgefield project, likely sensitive uses as defined in the document are likely to be limited to residential development (including caretaker's residences). The document also suggests that *'Some commercial, institutional and industrial land uses which require high levels of amenity or are sensitive to particular emissions may also be considered "sensitive land uses". Examples include some retail outlets, offices and training centres, and some types of storage and manufacturing facilities.'*

The implications of this document are therefore relevant in acknowledging the likely separation distances required between any future industrial expansion in the Wedgefield area, and existing caretaker dwellings within the balance of the industrial area. **(**See **Plan 11 - LUMP Key Existing Infrastructure Plan**).



Plan 11 - LUMP Key Existing Infrastructure Plan

The WIESP area is relatively close to some existing uses for which land use buffers must be considered. These are shown in **Table 2** below.

Table 2 – Land Use Buffers

Land Use	Location	Buffer Requirements
Tox-Free Facility	Lot 5857 Schillaman Street	500-1000m (1000m as per LUMP)
Waste Facility	Lot 1621 Schillaman Street	Buffer studies in progress to determine appropriate buffer distances (500m as per LUMP)

4. ENVIRONMENT & HERITAGE

The following information has been taken from a Preliminary Environmental Impact Assessment and Biological Survey report prepared by GHD on behalf of LandCorp. The following summary comments outline the key aspects of the survey and reporting, with a full copy of the report attached at **Appendix 1.**

4.1 FLORA AND VEGETATION

GHD undertook site visits and flora field survey of the subject land on 23 June 2008 and 11 June 2009, and concluded that the site contains a limited variety of plant species and importantly, that no Declared Rare or Priority flora species were recorded. For full details please refer **Appendix 1**.

Vegetation across the site is generally uniform and is described as '*Acacia stellaticeps* over mixed tussock grassland of *Triodia epactia* and *T. schinzii* over very open herbs.' While the condition of the vegetation is noted as 'excellent' and 'good', it is acknowledged in the report that this vegetation type is well represented in the region, with approximately 196,000 ha remaining undisturbed. A number of minor vegetation types associated with the tidal/mud flats exist within the northern-most portion of the study area and are further detailed in the attached report.

4.2 FAUNA

During the initial environmental survey undertaken in June 2008, potential Mulgara burrows were observed in parts of the site proposed to be developed over the next 5 year time frame. A number of photos of potential burrows were shown to Peter Kendrick at DEC, Karratha and he indicated that they were unlikely to be used by Mulgara. All the burrows on the site appeared to be inactive.

A supplementary survey of the northern portion of the Transport Development area occurred during June 2009, whereby evidence of active Mulgara burrows, tracks and scats were observed in the northern portion of the Transport Development area.

The ultimate development of the Transport Development area will occur in a staged manner commencing from the south western end of the estate (Pinga Street) and gradually extending north over an estimated 10 to 15 year development time frame. The location where Mulgara activity was observed is situated in the northern portion of the Transport Development area. This area is low lying, requires considerable fill material and is well removed from services. Accordingly, development of this land is not expected to take place until stages 5 or 6 of the development, which is estimated to occur after 2016.

LandCorp will re-survey for Mulgara activity prior to the development of each stage of the Wedgefield Industrial Estate expansion. Should Mulgaras appear to be active; a trapping and relocation program will be initiated.

The potential for additional significant fauna species to occur within the subject land is discussed in detail as part of the report at **Appendix 1**; however no species are noted to favour the habitat provided.

4.3 DISTRICT WATER MANAGEMENT & DEVELOPMENT LEVELS

The following preliminary District Water Management information has been prepared in support of the rezoning application and is based on current available information on storm surge, flood levels, drainage, ground water, scheme water. Details on further investigations and studies required to be undertaken prior to final adoption of the Structure Plan are also provided.

4.3.1 Storm Surge

Preliminary analysis has been undertaken by Coastal Engineers, MP Rogers and Associates (MPRA), with respect to Storm Surge and a desktop study of flood levels has been completed by JDA Consultant Hydrologists (JDA). Outcomes of these investigations indicate that a 50 year return period or Average Recurrence Interval (ARI) is an appropriate design criteria for industrial development.

A review of the State Planning Policy 2.6 - State Coastal Planning (SPP 2.6), in relation to Wedgefield is outlined in MPRA's letter to LandCorp dated 22 June 2009 (refer to **Appendix 2A**). This letter indicates that the current interpretation of SPP 2.6 equates to design storm in the order of the 500 year ARI event in Port Hedland and provides reasoning for the recommended 50 year ARI as a design criteria for industrial development.

4.3.2 Flooding

South Creek forms the western boundary of the Wedgefield Industrial Estate and is the main potential source of flood water. During significant storm events, there is understood to be an interaction between South and South West Creeks. The location of these water courses relative to Wedgefield are identified in the plan provided as **Appendix 2B**.

A desktop flood study was completed by JDA in October 2009 and is at **Appendix 2C**. This report identifies a possible margin of error of + / - 0.5 metres in respect to the most recent flood levels and that some of the assumptions for earlier studies need to be clarified. Further investigations are recommended using a 2D hydraulic model, such as MIKE 21, and this approach is supported by the Department of Water and detailed in correspondence provided at **Appendix 2D**.

JDA agrees with the submission by MPRA regarding suitable design flood levels for Wedgefield, given current information available. Details of MRPA's preliminary estimates (February 2009) which recommends adopting a 50 year ARI for industrial development associated with the expansion of Wedgefield is referenced at Appendix 1 of the JDA report.

Based on the above, it is proposed to have building floor levels at a minimum height of 6.3m Australian Height Datum (AHD) or above. This acknowledges the 50 year ARI storm surge return period, which includes other allowances as outlined in MPRA's estimates of February 2009. In consideration of onsite drainage requirements and the difference between building floor levels and the balance of the site, a minimum height for developable areas of each lot (i.e. excluding boundary setbacks provisions) is proposed to be at 6.0m AHD. As such any subdivision or development approval may require conditions outlined in section 8.1 of this report.

A number of additional management measures will apply to minimise any potential damage as a result of a flood event.

These may include:

- Relatively small building footprints in the Transport Development area;
- Locating all electrical fittings above the potential flood level;
- Storage of any valuable or hazardous goods to be above the potential flood level;
- Use of water resistant building materials for foundations, footings, floors and walls up to the potential flood level; and
- Application of planning and design guidelines, as well as purchaser and certificate of title notifications.

4.3.3 Drainage

There are no defined water courses through the proposed expansion area. The intended drainage strategy for the expansion areas will be to convey stormwater runoff via open channels within road and drainage reserves maintaining the existing flow paths where practical.

The outfall for runoff from LIA 3 & 4 will be via existing open drains in the vicinity of Cajarina Road and Kangan Way to the north-west and out to South Creek. The existing natural surface levels within the LIA 5 area indicate that the land falls towards the north and west with the lowest point occurring where the rail meets Great Northern Highway. From available survey it would appear that stormwater is being intercepted by the rail and the highway reserves where it is then directed to outfall at South Creek. Liaison will be required with the owners of both the highway and rail to ensure that the increase in storm runoff from LIA 5 will not exceed the capacities of their existing drainage systems.

The existing natural surface levels within the Transport Development area indicate that the land typically falls from the southern portion of the site to the north, out falling into the existing tidal flats / creek system. A similar drainage strategy to the light industry area will be adopted using open channels to maximise infiltration. Rather than concentrate the storm water into one major drainage corridor, a number of moderately sized drains are proposed to spread the stormwater flows and maintain near natural drainage paths to the tidal flats. Further details on the estate drainage strategy are contained under Part 5 "Servicing and Infrastructure".

Top soil collected during excavation works will be applied to the open drain batters and seeded with suitable native vegetation for stabilisation.

4.3.4 Onsite Investigations

Geotechnical site investigations were undertaken in early August 2009 on LIA 2, 3 and the initial stages of the Transport Development area. These investigations involved 52 test pits using an 8 tonne backhoe, to a target excavation depth of 3.0 metres. No ground water was encountered during these investigations. An extract of the executive summary, subsurface conditions and the test pit locality plan are at **Appendix 3**. A full copy of the report can be made available on request.

The Preliminary Environmental Impact Assessment and Biological Survey (October 2009) is at **Appendix 1**. Observations on hydrology and hydrogeology (Section 2.5) and wetlands and watercourses (Section 2.6) are noted in the report.

4.3.5 Ground Water

Communications with Mr Kevin Hopkinson, Senior Natural Resource Management Officer, Department of Water, Pilbara Region on 16 November 2009 indicate that there is unlikely to be any interaction between surface disturbing activities and ground water. The regional water table at Wedgefield is likely to be saline, greater than 3 metres in depth and considered low risk.

There may be a higher, perched groundwater system up to 2m deep that is connected laterally to the tidal marsh areas, and whilst this will be shallower closer to the marsh and creek margins, it may extend into the development area. There may also be smaller pockets of fresher water lenses perched above the mangrove mud layer throughout the site. Any excavation that may extend beyond the depth of fill into the natural horizon may potentially intercept these layers and be considered a medium to high risk, depending on the depth of the excavation and proximity to the tidal and creek systems.

4.3.6 Water Supply

The main proposed zonings / land uses for the expansion of Wedgefield are Transport Development and Light Industry which are not expected to consume large quantities of water. The purpose of the Transport Development zone is to provide land for specialised transport related uses such as storage yards, refuelling facilities, road train assembly and break-down sites, tyre replacement depots, truck washes and maintenance yards. The intent of the Light Industry zone is to provide land for the purpose of generally small scale industrial development, which exhibit a high standard of design and environmental performance in terms of amenity, noise, emissions and generation of vehicular traffic. A relatively small proportion of the expansion area is identified for Industry zoning being comparable to the established areas of Wedgefield.

Major water infrastructure currently exists to the south of Light Industrial Area 5 (LIA 5) with several mains of varying sizes (a 250mm diameter, two 375mm diameter and one 600mm diameter main) crossing the south east corner of the LIA 5 area. Other water mains are located in the established streets and a water reticulation strategy for the extension and reticulation of services is detailed under Item 5 “Infrastructure and Servicing”.

The water reticulation strategy has been prepared in consultation with the Water Corporation. Indications are that the existing infrastructure has adequate capacity to reticulate water to the proposed expansion areas of the Wedgefield Industrial Estate. The identified development areas will be progressively released over a 10 to 15 year timeframe and LandCorp will continue to work with the Water Corporation on the forecasted staging of future releases to ensure that any upgrades are appropriately planned and programmed.

4.4 ABORIGINAL HERITAGE

An anthropological and archaeological survey was undertaken by Anthropos Australis Pty Ltd on behalf of Marapikurrinya Pty Ltd and LandCorp during November 2008. Further anthropological consultation was undertaken in March 2009.

A summary report was prepared following the completion of the survey work, with the key recommendations of the report as they apply to the WIESP area provided as **Appendix 4**.

5. SERVICING & INFRASTRUCTURE

The WIESP area is capable of being serviced by all necessary utility services. Wood and Grieve Engineers have provided the following information (full report attached as **Appendix 5**).

5.1 ELECTRICITY

Power supply to the proposed lots within LIA 3 and LIA 4 is based on the standard 200kVA per hectare. Confirmation has been received from Horizon Power that sufficient capacity exists to service the proposed development and also, if necessary, any advice on upgrading work to ensure sufficient serviceability of the proposed development.

It is intended that the power supply to LIA 5 be initially limited to 100kVA/ha at the time of land release, with internal reticulation, including transformers, being sized to 200kVA/ha (or as agreed with Horizon Power). This will allow for lot owners to ultimately upgrade their power supply on an individual basis without incurring significant infrastructure upgrade costs, while also recognising that not all landowners may choose to do so.

The Transport Development Area provides larger sites to accommodate road train movements and yard storage for logistics activities. Generally, power usage is expected to be lower and power supply will be capped at 50kVA/ha, with transformers sized at 100kVA/ha capacity (or as agreed with Horizon Power) and underground cables to 200kVA/ha. Small clusters of lots between 0.5 – 1ha in size will be serviced from the outset with a high power supply, limited to 100kVA/ha, but with 200kVA/ha reticulation. The notional allocation of higher power rated lots within the Transport Development Area are shown on **Plan 11 Indicative Power Supply Plan.** The reader is reminded of the notations on Plan 11. These notes remind the reader that the plan is indicative only and that final power allocation will be reflected in sales plans once detailed reticulation power design and site surveying is completed.

The above approach reflects discussions between Horizon Power, LandCorp and the project engineers, Wood and Grieve. A preliminary analysis of Wedgefield's existing consumption and investigations into power demand for typical businesses in the Transport Development area suggests that a lower demand than standard supply will be required. The proposed power strategy (reflected in Plan 11) will rationalise electricity allocations in line with existing and forecasted consumption and minimise unnecessary major infrastructure upgrades. It will provide appropriately sized underground infrastructure to provide owners with the flexibility to upgrade power to meet specific high demand needs, should these arise.

The project surveyor, Whelans, have undertaken a survey of the Transport Development area and have confirmed the alignment of the existing high voltage powerlines running along the eastern edge of the existing Wedgefield area. Wood and Grieve Engineers in discussions with Horizon Power have indicated that a 30m wide easement would be appropriate to accommodate the current alignment of the powerlines. Where possible, powerlines are to be contained within road reserves.

5.2 TELECOMMUNICATIONS

Telstra cabling currently runs in Cajarina Road and Pinga Street. It is expected that lots forming LIA 3, LIA 4 and LIA 5 will be able to gain service from an extension to the existing cabling.

Telstra cabling currently runs in the Great Northern Highway reserve adjacent to the Transport Development area and also other proposed connecting roads adjacent to the site. It is expected that lots forming the Transport Development area will be able to gain service from an extension of the existing cabling.

5.3 GAS

Alinta has noted that they have no assets in this area. Reticulated gas supply is not planned as part of the WIESP area.

5.4 SEWERAGE

There is no sewer present in Wedgefield. Provided lot sizes are kept above 2,000m2 it is expected that the Water Corporation will not include a requirement to connect to sewer.

The Water Corporation have also noted that the WIESP area is beyond their current sewer operating licence area and that additionally they have no sewer planning or capacity for this area.

It is understood that the current arrangement for disposal of effluent in Wedgefield is via on-site methods. Geotechnical investigations have noted that due to the permeability of the land, on-site disposal systems will be suitable but will typically need to be oversized and should be assessed on a lot by lot basis.

5.5 WATER SUPPLY

The Water Corporation have indicated that Light Industrial Area 3 and 4 (LIA 3 & LIA 4) will be served by the existing 150mm diameter water main in Cajarina Road and Pinga Street. Should any internal roads be created within LIA 3 or LIA 4, an extension to the 150mm diameter water main will be required.

Major water infrastructure currently exists to the south of Light Industrial Area 5 (LIA 5) with several mains of varying sizes (a 250mm diameter, two 375mm diameter and one 600mm diameter main providing the water service to Port Hedland) crossing the south east corner of the LIA 5 area. The Water Corporation has noted these water mains are of strategic importance and reservation in road reserve or under separate title is the required outcome. The ultimate extent of development to the south-east of the LIA 5 area has therefore been amended to acknowledge the existing mains infrastructure.

The Water Corporation have advised that to serve LIA 5, a connection to one of the existing mains travelling north-east toward Port Hedland with a 300mm diameter water main will be required. Pending further discussion with the Water Corporation, this may require a minor mains upgrade, to be funded by the developer. The 300mm diameter main will extend through LIA 5 with the reticulation of the area being via 150mm diameter mains connecting off the 300mm diameter main. It is also noted that the 300mm diameter main will be ultimately required to extend to the Transport Development area.

Existing 150mm diameter water mains runs in the road reserves to the west of the Transport Development area. The Water Corporation has noted that the extension of these mains will be necessary to supply the Transport Development areas.

In addition, a 300mm diameter distribution main will need to be extended along Great Northern Highway to assist with maintaining adequate pressure within the system. As noted in LIA 5, the 300mm diameter distribution main will be an extension from the LIA 5 installation.

The mains servicing the existing Wedgefield Industrial Estate can be relocated, at the developer's expense. These details will be further discussed with the Water Corporation to identify the most appropriate method to service the expanded Wedgefield Industrial Estate.

5.6 STORMWATER DRAINAGE

The existing stormwater drainage operating within the LIA 3 and LIA 4 area allows stormwater runoff to egress via the road network and open drainage channels within the road reserve. The outfall for runoff in this area is to the north west through the proposed LIA 2 and out to South Creek.

The drainage strategy for the WIESP area will be a similar approach, with the intent being to direct stormwater to open drains within the road reserve and then connect these drains to the existing system.

The existing natural surface levels within the LIA 5 area indicate that the land falls towards the north and west with the lowest point occurring where the rail meets Great Northern Highway. From available survey it would appear that stormwater is being intercepted by the rail and the highway reserves where it is then directed to outfall at South Creek.

The intended drainage strategy for the area will be to convey stormwater runoff via open channels within road reserves and maintain the existing flow path. As this will increase the impervious area within LIA 5 and therefore burden the existing highway and rail drainage further it will be necessary to liaise with the owners of both the highway and rail to ensure the increase in storm runoff will not exceed the capacities of their existing drainage systems.

The existing natural surface levels within the Transport Development area indicate that the land typically falls from the southern portion of the site to the north out falling into the existing creek system. Due to the existing road networks adjacent to the west of the site, the connection of the future roads with the Transport Development area means that some stormwater runoff may head west out falling to South Creek. This can be confirmed during detailed design.

The intended drainage strategy for the area will be to convey stormwater runoff via open channels within road reserves and maintain the existing flow paths. This will therefore maintain outfalls to the northern creek system and South Creek.

It is also noted that a storm surge and flood study is currently underway for LandCorp's proposed developments in Wedgefield. This information will have a bearing on the drainage design as well as the required bulk earthworks necessary to protect against seasonal flooding, though it does not obviously preclude the land use approvals proposed by rezoning and strategic planning.

6. TRAFFIC & TRANSPORTATION

6.1 REGIONAL ROAD NETWORK

LIA 3, 4 and 5 and the Transport Development area all have a significant frontage to Great Northern Highway, which provides the main road traffic route linking Perth to the Pilbara, and extends further north into the Kimberley. It is therefore important to protect the function of the Great Northern Highway, not only in context of traffic movement into the Wedgefield industrial area, but also both private and heavy vehicle movement in a regional context.

The Town of Port Hedland has indicated that the view of both the Light Industry and Transport Development area from Great Northern Highway are to be protected through various visual screening options including earth bunds and plantings. This reflects a desire to protect the visual amenity of the entrance into Port Hedland and screen, where possible, the view of industrial uses from Great Northern Highway.

6.2 RAIL NETWORK

The Port Hedland – Goldsworthy Railway forms the southern most boundary of the LIA 5 area and as such, creates a significant constraint to the extension of industrial development. It is also acknowledged that there are traffic related issues associated with the at grade intersection with both Great Northern Highway and Wallwork Road. Whilst the Town of Port Hedland has indicated a desire for the construction of a grade separated crossing where Wallwork Road intersects the railway, planning is in its infancy and no funding sources have been identified in order to progress the design.

6.3 EXISTING WEDGEFIELD ROAD NETWORK

Whilst the road network within the existing Wedgefield industrial area is well established, MRWA has identified a number of key intersection and road upgrades in the short term (**Appendix 6 – MRWA Road Improvement Plans**). Also considered in longer term planning by MRWA is the planning and construction of a 'Loop Road', running to the north and west of Wedgefield. The Loop Road has been designed to redirect heavy vehicle movement away from the Great Northern Highway/Wallwork Road intersection and the Great Northern Highway/Pinga Street intersection.

In acknowledging the progressed nature of both short and long term road planning by MRWA, a plan has been prepared demonstrating the ultimate road network envisaged for the Wedgefield industrial estate (**Plan 13 – Road Network Plan**).

6.4 OBSTACLE LIMITATION SURFACES

Preliminary enquiries with the Town of Port Hedland (Manager - Airport Operations) confirm that land use controls and management practices may need to apply to the north-east corner of the TD area to meet Obstacle Limitation Surfaces (OLS) requirements.

The OLS impacted land is part of the later stages of the TD area. LandCorp will continue to work with the ToPH on structure height limitations.

Other factors apart from height restrictions (radio masts, construction cranes or crane hire, scissor lifts etc) that would need to be taken into account would be, smoke emissions, roof glare and any other factor that may impinge on safety.

6.5 SUMMARY

Ongoing discussions between LandCorp and the Department of Planning have acknowledged the ultimate potential impacts of increased traffic as a result of the expansion of the Wedgefield Industrial Area. Based on discussions with the TAG group, preliminary investigations involving traffic data collection were undertaken resulting in an origin and destination survey. The traffic data report has been circulated to MRWA and the Department of Planning, with an outcome of the report including a recommendation to undertake traffic modelling. LandCorp is now working with the Port Hedland Port Authority (PHPA) to utilise the existing Utah Point traffic model for the Wedgefield expansion. LandCorp will continue to work in a collaborative manner with the PHPA, MRWA and Town of Port Hedland and has detailed the status of further traffic investigations in a letter to the Department of Planning (refer to **Appendix 6**).

7. THE STRUCTURE PLAN

The WIESP covers Light Industry, Industry and Transport Developments zones, with each zone having a range of permissible uses based on its envisaged role in relation to the broader Port Hedland area. Refer **Plan 13 – Wedgefield Industrial Estate Structure Plan.**

7.1 DESIGN PRINCIPLES

The key design principles for the WIESP are based on the results of consultation undertaken through numerous TAG meetings, the recommendations of the LUMP, and the key opportunities and constraints that have been identified through discussions with various agencies and stakeholders. The following principles have dictated the design of the plan and accompanying development requirements:

- Developing an attractive and presentable 'Gateway' to Port Hedland along both Great Northern Highway and Wallwork Road;
- Containing the spread of industrial uses in well planned and orderly precincts that will support light industry, transport and other industrial uses;
- Acknowledging and responding to the recommendations and suggestions of previous strategic documents, notably the Port Hedland Land Use Master Plan (LUMP);
- Managing land-uses which may adversely impact on the existing residents of the Wedgefield Industrial area;
- Providing allotments that meet market demands;
- Providing for a permeable road and movement network that accommodates heavy transport vehicles through properly designed intersections and road carriageway widths that will allow for ease in circulation and movement; and
- Encouraging attractive and high quality built form that integrates sustainable design components which will respond to Port Hedland's unique climate.

7.2 DEVELOPMENT PRECINCTS

Plan 2 - Industrial Planning Precincts, illustrates the relationship between the various Light Industrial, Industry and Transport Development areas.

7.2.1 Light Industrial Areas 3 & 4 (LIA 3 & 4)

Whilst the specific number of lots ultimately created within each precinct will be refined at the subdivision stage, these sites initially comprise:

- LIA 3: approximately 29 lots ranging in size from 2013m² to 5858m².

- LIA 4: an isolated land parcel lying between Great Northern Highway, the Port Hedland-Goldsworth Railway and the new Finucane Island access road. It is anticipated that a low traffic generating use may be allocated for this site in the short term whilst the Finucane Island access road continues in its existing alignment (subject to MRWA agreement). The ultimate development of the site is only likely to be realised once the Loop Road is operational and the Finucane Island access road has been removed.

The current concept for LIA 3 and LIA 4 recognises the intended development of a landscaped buffer within the existing MRWA Road Reserve (See draft landscape plan at **Appendix 8**). The site gains relatively good exposure to key adjoining transport routes and LIA3 and LIA4 will be subject to stricter controls on the visual amenity of the industrial uses and may therefore ultimately form part of a 'Gateway' to the Wedgefield Industrial Estate.

Due to its proximity to the existing industrial area, land use will be restricted to small service and light industrial uses which are recognised by the EPA Guidance Statement No.3 as being appropriate for location in close proximity to sensitive uses.

Due to the proximity and frontage to Great Northern Highway, it is likely any development within the precinct will be visible from the road. It is noted that a landscape buffer containing both earth bunds and plantings is provided within the 100m wide road reserve, with approximately 40m of separation between the precinct and the road carriageway. All development will also be required to address Great Northern Highway in an attractive manner. Due to the relative heights of the Great Northern Highway and the ultimate built form, earth bunding/landscaping will not be able to block the view of developments but will provide a screening effect. Accordingly, the Structure Plan will incorporate appropriate development and landscaping controls to ensure that development contributes to an attractive entrance to Port Hedland through the use of Design Guidelines.

7.2.2 Light Industrial Area 5 (LIA 5)

LIA 5 comprises a number of potential development cells, with an ultimate yield of 60-80 lots, with lots intending to range from approximately 2000m² to 5ha. Given the site's location, with high exposure to Great Northern Highway and Wallwork Road, controls on land use and development standards are therefore higher than for the broader internal core industrial and transport development areas.

The layout of LIA 5 acknowledges the existing Water Corporation water main infrastructure located in the south-eastern corner of LIA 5 and generally running parallel to Wallwork Road, as well as water mains running across LIA 5 from Wallwork Road to Pinga Street. The water mains along Wallwork Road are intended to be contained within the road reserve as shown on the Structure Plan, with the water mains bisecting LIA 5 to be contained within an easement and/or within an internal road reserve. Further design details will be confirmed at the subdivision stage.

As outlined in Part 6.2, the layout of LIA 5 considers the ultimate construction of a fly-over where Wallwork Road intersects the Port Hedland – Goldsworthy Railway. Should the fly-over be created, there may be an opportunity to extend the southernmost internal LIA 5 road east under the railway fly-over to provide access to land to the east.

Landscaping and built form presentation will also be required to be of a higher standard for lots fronting Great Northern Highway and Wallwork Road.

Similar to LIA 3 & 4, appropriate design guidelines will ensure that development contributes to the enhancement of the main entry into Port Hedland in accordance with the requirements of the LUMP.

7.2.3 Industry Area

A small area of land zoned "Industry" exists to the north-east of the Transport Development (TD) area. The development sites within this area should be developed in accordance with the industry zone. Sensitive land uses such as residential and Transient Workforce Accommodation (TWA) should not be allowed for in this zone. The industrial zoning of this land provides certainty for both the WIESP and surrounding private landowners, and removes any ongoing question of land use incompatibility.

An open drainage channel to the north-west of the Tox Free site (Lot 5857 Schillaman Street) will define the boundary between the "Industry" and "Transport Development" zones.

7.2.4 Transport Development (TD) Area

The Transport Development area comprises land immediately south of the Port Hedland Port Authority area, with proposed lot sizes ranging from 6000m² to 13.5ha. The demand for smaller lots is supported by preliminary market feedback provided at **Appendix 10**.

It is generally intended for less visually appealing activities (e.g. Storage and lay down areas) to be confined to the centre of the precinct, with more presentable uses located along higher traffic routes.

Whilst the development of the TD area is somewhat reliant on the construction of the proposed Loop Road, primary access is available via the new road off Pinga Street running parallel to Anthill Street, with secondary access likely to be available via an extension of Schilliman Street and Moorambine Street.

The TD area is intended to support range of industrial uses and in particular uses that support the transport, mining and construction industries. The TD area will have a high level of accessibility to ensure that high and wide loads can pass through without significant conflict.

The PHPA have been active participants in the WIESP planning process and provided comment both in respect to PHPA activities and also the plans proposed in this document. The design of the WIESP road network and lot configurations has, wherever possible, had due regard to PHPA requirements.

The TD area faces two distinct consideration that will affect the permissibility and site development of some uses internally:

- The TD areas direct proximity and abutment to the existing Wedgefield industrial area. The TD areas direct frontage to Great Northern Highway.

The above matters are dealt with through the inclusion of 'Control Area 1' in the WIESP. Control Area 1 will address the key objective of presentation of the industrial estate to Great Northern Highway as the gateway to Port Hedland. Control Area 1 will require higher levels of landscape and presentation and as a result will influence land use.

The provisions for Control Area 1 are stated on the Structure Plan and require Design Guidelines to protect the interface of the development along Great Northern Highway. Additional requirements in the Design Guidelines will include screening of development, landscaping and the like.

Control Areas 1 is intended to recognise the role of Great Northern Highway. They will affect the location of uses which may be visually obtrusive (i.e. Scrap Storage or break down areas)).

7.3 LANDUSE

7.3.1 Caretakers Dwellings

Under LPS 5, Caretakers Dwellings are listed as a prohibited (X) use within both the Light Industry and Transport Development zones. Caretakers Dwellings will not be permitted in any areas of the WIESP

Furthermore, consideration must be given to WAPC Planning Bulletin No.70 which highlights the following objectives with regards to Caretaker's Dwellings:

a) *"To discourage the establishment of residential uses in industrial areas which may compromise the integrity of industrial areas and create unacceptable residential environments.*

b) *To provide for caretakers dwellings in industrial areas in limited circumstances and subject to appropriate planning controls."*

Subject to Council consideration on the appropriateness of caretaker's dwellings in the existing Industrial area and the development of appropriate planning controls to ensure the integrity of Wedgefield as an industrial area is not further compromised, it may be that Council reconsiders the matter at a later date in order to permit Caretaker's dwellings in certain areas, such as the LIA precincts. This would be facilitated by a minor amendment to the Scheme and require review of relevant scheme provisions and existing land uses at that time.

7.3.2 General and Noxious Industry

The Boodarie Industrial estate has been reserved for heavy industrial downstream processing opportunities and noxious industries requiring a buffer to sensitive land uses. However, acknowledging that not all general and noxious uses will be appropriate within the Boodarie Industrial estate, the TD area will provide for a range of general and noxious industrial uses that can manage their impact within their own site and do not constitute a hazard to adjoining land uses. Examples of such uses are sand blasting, concrete batching, spray painting and moulding of plastics. These uses will have a strong relationship with other uses within the TD area and benefit from the ability to cluster with complementary uses.

7.4 ROADS & MOVEMENT

7.4.1 Road Network

A Road Network Plan has been prepared to indicatively show the hierarchy of both existing and proposed road networks within the WIESP area (refer **Plan 11**).

It is also suggested that the future extension of Pinga Street through to the Loop Road would increase the overall permeability of the estate and result in a clear 'spine road' running from Great Northern Highway through to the proposed Loop Road. This would however require either the purchase or some form of negotiation with the owner of Lot 2448 Moorambine Street. Given the complexities of land acquisition by LandCorp, this has been shown as an ultimate desired outcome on the Road Network Plan, with further negotiation required at a later stage. The alternative extension of Draper Street also provides access through to the Loop Road, albeit it in a less direct fashion.

7.5 DRAINAGE AND WATER MANAGEMENT

The existing stormwater drainage operating within the LIA 3 and LIA 4 area allows stormwater runoff to egress via the road network and open drainage channels within the road reserve. The outfall for runoff in this area is to the north-west through the proposed LIA 2 and out to South Creek.

Drainage for the remainder of the WIESP area will be similar, with stormwater directed to open drains within the road reserve and then connected to the existing system.

7.6 LANDSCAPING

Landscape Consultants UDLA have prepared an Indicative Landscape Plan, with elevations demonstrating a number of key road layouts and proposed planting and bunds along Great Northern Highway to provide an attractive entry into Port Hedland. This plan is provided at **Appendix 8**.

The plan demonstrates the manner in which earth bunds and selective plantings will be used in order to provide a screening of industrial uses from Great Northern Highway.

8. ADOPTION & IMPLEMENTATION

8.1 SUBDIVISION

The provisions of the WIESP will require any super lot subdivision to be in accordance with the approved WIESP. In addition to this any subdivision approval granted within the structure plan area should include the following condition:

> A restrictive covenant, to the benefit of the Town of Port Hedland pursuant to Section 129BA of the *Transfer of Land Act 1893* is to be placed on the certificates of title of the proposed lots advising of the existence of a restriction on the use of the land. Notice of this restriction is to be included on the diagram or plan of survey (deposited plan). The restrictive covenant is to state as follows:
>
> 'The minimum fill level for the proposed development is RL 6.0m AHD and the minimum finished floor level for buildings is RL 6.3m AHD' (Local Government).

8.2 STAGING & LAND RELEASE

An indicative staging plan for the Transport Development area is provided as **Plan 14**. This plan has been prepared to demonstrate the ability for the land to be released in a manner that allows for the logical creation of a road network on a staged basis, as well as allowing for the coordinated extension of services.

The staging plan considers:

i. the progressive extension of the TD area eastwards from Pinga Street;

ii. the orderly growth of the road network through a series of 'loop extensions' that avoid the use of undesirable temporary cul-de-sacs in an industrial area;

iii. the inclusion of a variety of lot product both in size and frontage in each stage; and

iv. the allowance for ultimate staging extensions northwards to link with the outer loop road alignment.

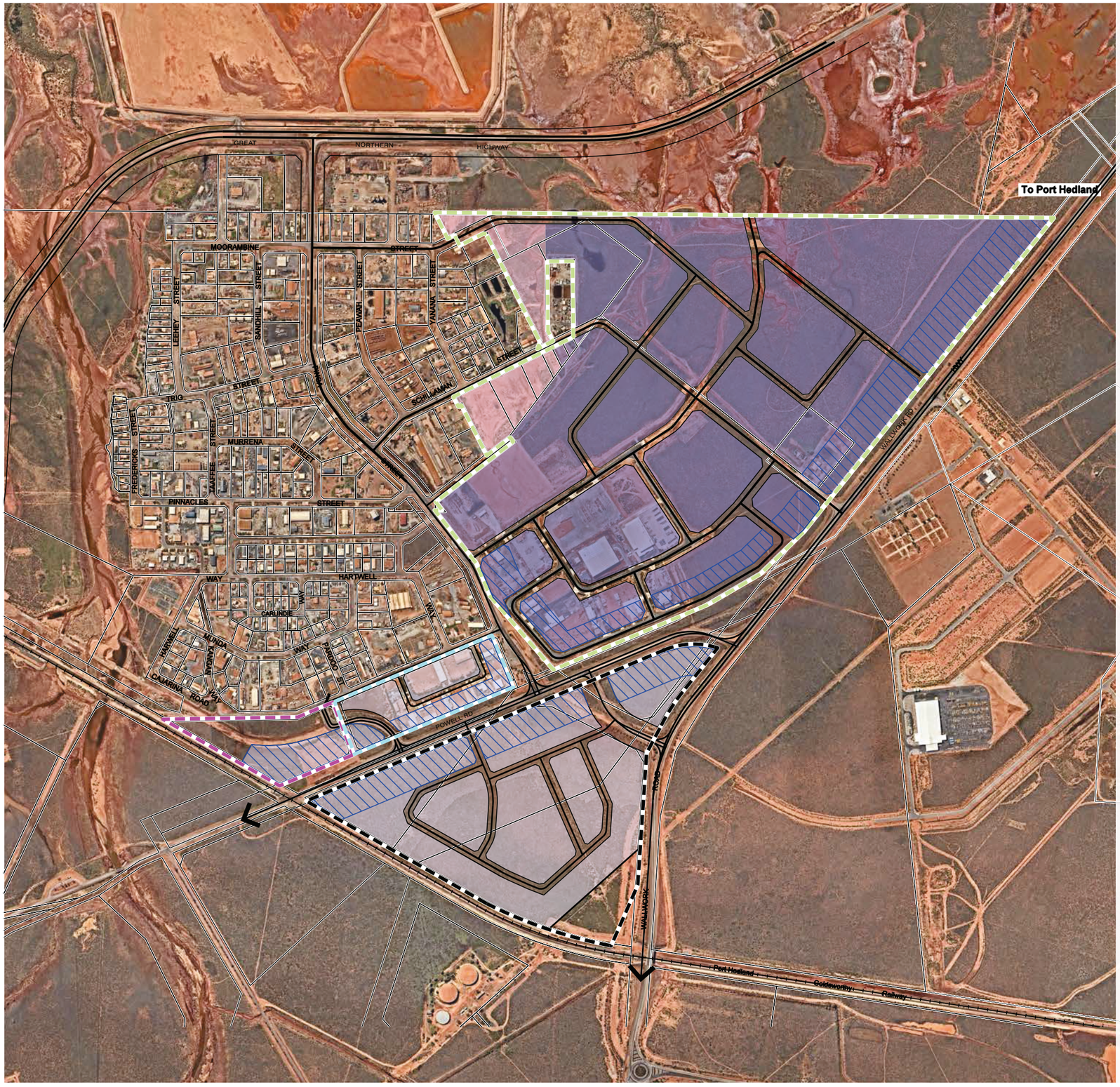
8.3 DESIGN GUIDELINES & BUILT FORM

Consistent with earlier LandCorp industrial land releases in the region, the WIESP requires that development be undertaken in accordance with estate Design Guidelines. A range of matters that may be included in the Design Guidelines are recognised in the main WIESP shown as **Plan 13**. These guidelines have been adopted by the Town of Port Hedland as design guidelines Hedland Junction Wedgefield Industrial Estate and Hedland Junction Wedgefield Industrial Estate - Light Industrial Area (LIA 3).

9. SUMMARY

This WIESP has been prepared in conjunction with LPS5 in order to facilitate the orderly and coordinated expansion of industrial uses at Wedgefield, Port Hedland.

the WIESP will form the framework for subdivision of the land and allocate distinct development parcels to allow for the timely development and release of land to the market. The WIESP details the ultimate form of the Wedgefield industrial area, with the appropriate supporting documents including traffic, engineering and environmental reporting.



STRCUTURE PLAN POLICY PROVISIONS

A: Description of Area:

The Wedgefield Industrial Estate Structure Plan (WIESP) applies to all land identified as lying within the Structure Plan boundary as per this map and/or Appendix 3 of the Town of Port Hedland Local Planning Scheme No.5 (LPS 5).

B: Policy Provisions

1. When considering applications for development and/or subdivision within the Structure Plan area, the responsible authority shall have regard to the provisions of this Structure Plan.

2. When exercising discretion in considering applications for development and/or subdivision within the Structure Plan area, the responsible authority may require the submission of the following management plans:

a. A Local Water Management Strategy
b. A Traffic Management Plan
c. An Environmental Management Plan; and
d. A Bushfire Management Plan.

3. When considering applications for development and/or subdivision the relevant authority should give regard to the conditions outlined in Part 8 of the Structure Plan Report for the purpose of approval.

4. Development of land within the WIESP should have regard to the Design Guidelines adopted by the Town of Port Hedland as Local Planning Policy's for the relevant Light Industrial and Transport Development areas. Where no Design Guidelines exist and are required, there preparation should include but not limited to the following:

i. Building envelopes, building materials and finishes;
ii. Distribution of land uses within a lot or within a development;
iii. Services;
iv. Vehicular access, parking, loading and unloading areas, storage yards and rubbish collection closures;
v. The location, orientation, height and design of buildings and the space between buildings in response to the Headland climate;
vi. Advertising signs, lighting and fencing;
vii. Landscaping, finished site levels and drainage;
viii. Protection of sites of heritage, conservation or environmental significance;
ix. Other provisions or information considered to be appropriate by the Town of Port Headland; and
x. Special design treatment for lots abutting Great Northern Highway and entry roads.

5. All land use development within the area identified by the blue hatch as Control Area 1 on the Structure Plan should comply with the following requirements:

i. Access to all sites is to be via internal subdivision roads with no access permitted from Wallwork Road / Powell Road; and
ii. Additional screening and landscaping requirements for lots adjacent to Wallwork Road / Powell Road and main entry roads should be imposed through the preparation and adoption of appropriate Design Guidelines.

LEGEND:

- LIA 3
- LIA 4
- LIA 5
- TRANSPORT DEVELOPMENT
- LIGHT INDUSTRY
- TRANSPORT DEVELOPMENT
- INDUSTRY
- CONTROL AREA 1

URBIS

WEDGEFIELD INDUSTRIAL ESTATE
STRUCTURE PLAN

DATE: AUGUST 2019

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