Table 34 Assessment of rural living investigation areas

SPP2.5 criteria	D – Weero Road general investigation area	E- Weaber Plain rural residential investigation area	F – Crossing Falls rural residential investigation area
Adjacent to existing urban areas and services	Land is within close proximity of Kununurra.	Land is within close proximity of Kununurra.	Land is within close proximity of Kununurra.
Proposal will not conflict with primary production and the area is not designated from priority agricultural land	Identified as generally low suitability in HQAL Study. Portions in the south/east of the area identified as having higher suitability.	Identified a moderate level of suitability in HQAL Study.	Portions identified as having moderate suitability in the HQAL Study.
Supplied by reticulated potable water, or demonstrate licensed supply in not available	Reticulated water not available. Provision of future water supply requires investigation.	Reticulated water not available. Provision of future water supply requires investigation.	Reticulated water not available. Provision of future water supply requires investigation.
Electricity supply is available	Existing overhead distribution supply.	Existing overhead distribution supply.	Overhead distribution nearby, requires extension.
The precinct has reasonable access to community facilities	Area is approximately 4 km from Kununurra, which provides community facilities.	Area is approximately 3.5 km from Kununurra, which provides community facilities.	Area is approximately 6 km from Kununurra, which provides community facilities.
Land is predominantly cleared of remnant vegetation	Limited remnant native vegetation present.	Significant remnant vegetation exists, as well as notable geographic formations.	Significant remnant native vegetation present.
Land will achieve improved environmental and landscape outcomes	No significant impact on environmental and/or landscape values.	Potential for significant conservation, landscape, environmental and cultural heritage values to be present.	Potential for significant conservation and environmental values.
Land is separate from adjoining uses	Land removed from conflicting land uses.	Land removed from conflicting land uses. Potential future industrial land use at *Planning Area H – Weaber Plain industrial* will required consideration of appropriate buffers.	Land removed from conflicting land uses.
Lots can be serviced by constructed road	Connected to existing network.	Connected to existing network.	Nearby to existing road network. Extension required.
Bushfire risks can be minimised	Bushfire risk reduced due to limited vegetation and potential escape access.	Bushfire risk reduced due to limited vegetation and potential escape access.	Bushfire risk likely considerable due to vegetation and access constraints.



4.2.9 HEALTH AND LONG-TERM CONDITIONS

The Shire's population has comparatively less long-term health conditions that the wider Western Australian population. This could be a result of a range of factors but may be reflective of the Shire's relatively young population profile.

Table 35 Long term health conditions (2023)

Response	Shire	WA
Long-term condition	19.3%	29.9%
No long-term condition	59.8%	61.2%
Not stated	20.9%	8.9%

4.2.10 COMMUNITY INFRASTRUCTURE AND FACILITIES

Education facilities

In the Shire of Wyndham-East Kimberley, educational facilities cater to a diverse and geographically dispersed population.

The region hosts several primary and secondary schools, including East Kimberley College (previously Kununurra District High School) and Wyndham District High School, providing education from early childhood through to Year 12. Smaller, remote communities have dedicated schools like Kalumburu Remote Community School, which focus on incorporating local cultural education alongside the standard curriculum.

The North Regional TAFE in Kununurra offers vocational training and adult education programs, addressing the needs of the local workforce. While there are limited on-site university facilities within the Shire, TAFE programs and distance education options provide accessible pathways for tertiary education.

Community facilities

Kununurra offers a wide range of community facilities catering to the needs of residents and visitors. These include educational institutions like East Kimberley College and the North Region TAFE, health services such as the Kununurra District Hospital and Ord Valley Aboriginal Health Service, and recreational facilities like the Kununurra Leisure Centre and Celebrity Tree Park. The town also features cultural hubs like the Waringarri Aboriginal Arts Centre and Mirima National Park, and civic services including the police station, courthouse, and local government offices.

Wyndham offers a diverse array of essential services including healthcare provided by the Wyndham Hospital and Ngnowar Aerwah Aboriginal Corporation, while education is facilitated through the Wyndham District High School. Recreational amenities like the Wyndham Swimming Pool and Sports Oval promote active lifestyles, complemented by cultural attractions such as the Wyndham Museum and Five Rivers Lookout. Civic services like the Wyndham Police Station and Shire Office ensure public safety and governance.

Child care

The Ewin Early Learning Centre (Kununurra), One-Tree Woothoo-woothoong thoon Ninggoowoong Dawang Children's Service (Kununurra) and the Wyndham Childcare Centre offer comprehensive long day care services for children from infancy to school age, creating nurturing environments conducive to learning and growth. Additionally, families may opt for family day care, facilitated by registered carers in their homes, providing a more intimate setting and flexible care arrangements. For Indigenous families, the Ngnowar Aerwah Aboriginal Corporation offers culturally focused childcare services, incorporating cultural elements and providing tailored support.

Major community infrastructure projects

In addition to existing community facilities, a number of upgrades, expansions and new community facilities are occurring throughout the Shire, including:

- A community and resilience hub in Wyndham
- Expansion of the Kunnunra Leisure Centre
- Major all-abilities playground at Celebrity Tree Park in Kunnnunra
- Replace the Wyndham northern boat ramp at the Wyndham boat launching facility.

Issues/Opportunities	
	– Low housing yields and high construction costs limit the attractiveness of new housing construction. – Dwelling forms suitable for couples with children – Varying forms of workforce accommodation may assist in alleviating short-term housing supply issues. – Significant land for residential development is already available within the Shire, particularly around Kununurra. – There is evidence of difficulties in accessing childcare services within Kununurra and Wyndham.



4.3 Economy and employment

4.3.1 LABOUR FORCE STATUS

Kununurra has a significant proportion of its population engaged in full-time employment compared to the other locations. Wyndham has a relatively higher reliance on part-time employment compared to both Kununurra and the overall state of Western Australia. Higher proportions of full-time work are indicative of a stable workforce and a more diverse, successful local economy.

	Kununurra	Wyndham	Western Australia
Employed full-time	72.3%	68.4%	60.2%
Employed part-time	20.3%	23.4%	33.7%

(ABS, 2023)

Matching the relatively strong employment profile of the Shire is typical levels of youth unemployment. Youth unemployment in the Shire's main settlements is typical of other parts of WA and are relatively low for the Kimberley region.

Table 36 Youth unemployment

	Kununurra	Wyndham	Western Australia
Youth unemployment	6.2%	5.5%	5.1%

4.3.2 INDUSTRY OF EMPLOYMENT

Employment varies across the Shire's two main settlements. The presence of the Ord River Irrigation Area (ORIA) drives considerable employment in the Agriculture, Forestry and Fishing Industry in Kununurra. Further, as a major population centre, Kununurra contains most of the public administration and social service functions within the Shire, leading to high rates of public sector employment. Economic output from local industries has changed considerably in the past decade. Growth has occurred in major public facing industries such as healthcare, public administration and safety, as in the agriculture sector where significant investment in the ORIA has increased output. This has offset a considerable fall in the local construction industry and fluctuations in outputs from other service, infrastructure and resource sectors.

Table 37 Industry of employment

Industry	Kununurra	Wyndham	Western Australia
Agriculture, Forestry and Fishing	6.8%	2.1%	2.3%
Mining	1.6%	9.9%	7.5%
Construction	7.4%	3.0%	8.8%
Retail Trade	7.3%	7.3%	8.8%
Accommodation and Food Services	6.8%	5.2%	6.5%
Transport, Postal and Warehousing	5.4%	8.2%	4.5%
Administrative and Support Services	3.5%	6.9%	3.1%
Public Administration and Safety	11.8%	8.6%	5.9%
Education and Training	11.4%	17.2%	8.8%
Health Care and Social Assistance	18.5%	18.5%	13.6%

4.3.3 HOUSEHOLD INCOMES

Table 38 presents a comparison of median weekly household incomes and motor vehicle ownership per household. In Kununurra, the median weekly household income is notably higher at $1,987, accompanied by an average of 1.7 motor vehicles per household compared to Wyndham. The differences may reflect variations in industry employment, living costs, and access to services between the two settlements.

Table 38 Household income and vehicle ownership

Settlement	Median weekly household incomes	Motor vehicles per household
Kununurra	$1,987	1.7
Wyndham	$1,213	1.4

4.3.4 INDUSTRY SECTOR PROFILE

Economic output from local industries has changed considerably in the past decade. Growth has occurred in major public facing industries such as healthcare, public administration and safety, as in the agriculture sector where significant investment in the ORIA has increased output. This has offset a considerable fall in the local construction industry and fluctuations in outputs from other service, infrastructure, and resource sectors.

Table 39 Local sales by industry sector

Industry sector	2016/17	2021/22	Change ($)
Construction	122.6	73.8	-48.8
Agriculture, Forestry and Fishing	36.7	60.8	+24.0
Health Care and Social Assistance	39.0	53.0	+14.0
Public Administration and Safety	39.2	43.6	+4.4
Education and Training	30.9	30.1	-0.8
Retail Trade	22.6	27.3	+4.6
Transport, Postal and Warehousing	24.1	25.7	+1.6
Electricity, Gas, Water and Waste Services	27.5	25.3	-2.3
Administrative and Support Services	27.4	23.4	-4.0
Professional, Scientific and Technical Services	16.4	22.2	+5.8

4.3.5 ECONOMIC OUTPUT

The economic output of the Kimberley region is estimated to be $7.6 billion, in which the Shire contributes approximately $1.723 billion (22.4%). The Shire contributes evenly to this output across most industrial, though overperforms in agricultural output, while underperforming on mining output.

4.3.6 MAJOR PROJECTS

There are a number of developments proposed with the Shire that have the potential to support economic growth in the long-term. Table 40 describes the planned major projects within the Shire and provides an overview of the potential economic impact.

Table 40 Planned major projects

Project	Cost and employment demand (estimated)
East Kimberley Regional Airport and Business Precinct Upgrade	Employment: 60 direct/10 indirect Long Term: 105 direct/41 indirect.
East Kimberley Airport runway and taxiway expansion	Unknown.
Kununurra Cotton Gin Kimberley Cotton Company	$60m project $32m loan from Northern Australia Infrastructure Facility (NAIF) + $4m from State Government to build cotton gin.
Knox Plain Cotton Development Kimberley Agricultural Industry	5000 ha Cotton/agriculture.
Kununurra Short Stay Accommodation Department of Communities	Project cost: $20m. Construction: 100 jobs Permanent workforce when complete.
Keep Plains Agricultural Development AAM Investment Group and Northern Territory Land Corporation Northern Territory / Kununurra	Stage 3: 67,500 hectare farmland expansion along WA/NT border
Sorby Hills Boab Metals Limited	Mine with 8.5-year mine life Construction: 200+ jobs Ongoing workers: 180
Speewah Vanadium- Titanium-Iron Project Tivan Limited Kununurra/Wyndham	Unknown.
First Port of Entry Status and Infrastructure Kimberley Ports Authority	Value: $12m capital investment in two stages to support First Port of Entry container and break bulk trade

Project	Cost and employment demand (estimated)
	Construction: number of jobs unknown Once built it will support an ongoing increase in employment at Wyndham port by 20%
Development of 16 one and two-bed modular homes at Water Lily Place	Value: The State government has pledged $5 million to support the project. Construction: number of jobs unknown, however once built it will provide residential accommodation for people employed in the region.

4.3.7 COMMERCIAL AND INDUSTRIAL LAND

Ensuring the Shire has sufficient and well-located commercial and industrial land is critical to securing long-term opportunities for employment and diversification of the local economy.

Table 41 Commercial and industrial land capacity estimate (2020)

Land use type	Total (Ha)	Developed (Ha)	Capable of substantial further development (Ha)
Commercial	91	85	6
Future Commercial	0	0	0
Industrial	599	368	231
Future Industrial	32	0	32

(Department of Planning, Lands and Heritage, 2020)

Commercial land

There is a considerable area of land zoned for industrial purposes within the Shire, with less land available for commercial development. As set out in Table 41, there is approximately 6 hectares of undeveloped commercial land within the Shire, with most of this land located in Wyndham.

Existing commercial land/activity is largely confined to the Kununurra town centre, which is almost fully developed. Consequently, some commercial activity is present in adjacent Mixed Use and Service Industry zones adjacent to the Commercial zone. This includes café/lunch bars, office and customer facing service industry uses.

The low availability of commercial land within Kununurra has the potential to constrain long-term economic growth in instances increased demand. Conversely, demand for commercial zoned land is highly responsive to fluctuations in commercial activity and consumer spending. Careful consideration of expansion to commercial zones is required to ensure retail sustainability is not diminished. However, there is a clear need to reconsider the zoning of land within and nearby to the Kununurra town centre (Commercial zone) to ensure sufficient land and premises are available to businesses in the future.

Industrial land

The Shire has considerable land zoned for industrial and commercial activity within and around its major population centres at Kununurra and Wyndham. Significant areas of zoned industrial land exist:

- At the Port of Wyndham is zoned 'General Industry', with some lots developed for existing port industry but most land is undeveloped and not sufficiently serviced with infrastructure.
- On the periphery of the Kununurra townsite along Weaber Plain Road, as well as adjacent to the Kununurra Waste Water Treatment Plant.

Most of this land is not developed or serviced. The absence of servicing, likely influence of land cost and the availability of 'Service Industry' and 'Mixed Use' land within/nearby to the Kununurra town centre provide disincentive for the development of new industrial land. There is some evidence to suggest that more intrusive industrial activities, such as repair yards, manufacturing workshops and engineering activities are locating in the Mixed Use and Service Commercial zoned areas nearby to the Kununurra town centre.

Future industrial land

In the long-term, identifying and achieving conditions for the development of 'General industry' zoned land nearby to Kununurra will be critical in providing suitable land/premises for more intrusive industrial activities.

This includes ensuring industrial land is available to support major planned projects in the agriculture, energy and resource industries. This Strategy outlines investigation of the establishment of a General industrial area to the west and north of Kununurra on land adjacent to Weero Road and Ivanhoe Road. Identification of this land has occurred based on the discussion in the table below.

Table 42 Future industrial land characteristics

Factor	Comments
Land tenure	The land is subject to a Crown land title, is not a place where Native title exists, nor is it subject to any existing Pastoral lease.
Transport and haulage access	The land is nearby to the planned Kununurra northern bypass, which is proposed to connect Weeber Plain Road to Victoria Highway via Ivanhoe Road and a crossing adjacent to Weero Road. Advent of the bypass will enable industrial activity to occur between the ORIA and the investigation areas without the need to transit the Kununurra townsite. In the event the northern by-pass is not constructed, Ivanhoe Road can ensure most heavy vehicles bypass the Kununurra town centre.
Proximity to industry	The land is close to existing agricultural activity in the ORIA. The potential for expansion of the ORIA to Carlton Hill, Mantinea Plateau and further at Packsaddle Road could be serviced by the industrial area without the need to transit the Kununurra town centre.
Cultural heritage	Large portions of the land do not intersect with existing (registered) places of Aboriginal cultural heritage significance. There are no known European cultural heritage places present at the land.
Electrical infrastructure	Existing electrical circuit is located nearby at Victoria Highway and Ivanhoe Road.
Low agricultural suitability	The land is noted as having low agricultural suitability in the HQAL study. The HQAL study recommends investigation of the land for rezoning for other purposes.

The land has not been investigated in significant detail for any environmental constraints. The land is already identified as containing mapped Threatened and Priority Flora, Fauna and Threatened Ecological Communities. Detailed investigation and negotiation of land rights, environmental and physical (geotechnical) considerations, as well as connection to service infrastructure will be required in the future.

SPP4.1 – Industrial interface specifies that future industrial investigation areas are to plan for interface with adjacent land use. The investigation area is located nearby to existing Rural, Rural residential and Local horticulture zones. These zones provide for residential dwellings and horticultural activity.

SPP4.1 specifies that compatible zones, reserves and land uses are typically those considered to be more accommodating or tolerant of, industrial off-site impacts and/or safety risks. The policy identifies that zones such as Rural and Rural enterprise zones provide compatible interface with industrial activities. Any future change to the planning framework must be supported by an investigation of industrial interface buffers that ensure appropriate land use transition. It is expected that implementation of buffers will significantly reduce the scale of land considered for investigation depicted on Map 3 – Kununurra Surrounds.

4.3.8 TOURISM

Tourism is a significant and growing source of industry and employment within the Shire. Tourism contributes $125 million to the Shire's GRP (Regional Development Australia, 2024). The tourism industry directly employs 292 people within the Shire with an additional 260 people employed indirectly (through accommodation businesses etc.). The sector has become a vital source of livelihood for the local community, offering employment opportunities across various domains within the tourism industry.

Table 43 Economic value of tourism

Measure	Type	SWEK	% of total industry	Western Australia
Employment	Direct	292	7.9%	3.7%
	Indirect	260	7.0%	3.3%
Economic product	Direct	$50.88m	4.6%	1.2%
	Indirect	$64.10m	5.8%	1.9%

(Regional Development Australia, 2024)

The Shire boasts a rich Indigenous culture, unique landscapes and natural amenity. It's isolation, wilderness areas and diversity make the region highly attractive for tourism. The tourism and visitation conditions in the Shire are influenced by several factors:

- The Shire has a significant Indigenous population, and visitors have the opportunity to engage with and learn about the Aboriginal culture and traditions of the local communities. Cultural tourism experiences, such as art galleries and guided tours, contribute to the appeal of the region.

- Wilderness Trails, including the Gibb River Road, are popular routes for adventure travellers. These trails showcase the region's vast wilderness, waterfalls, gorges, and provide opportunities for camping and 4WD adventures.
- The Ord Valley Muster is a major event that contributes to tourism in the region. This festival includes a diverse range of activities such as concerts, cultural events, and attract visitors from across Australia.
- The East Kimberley is a destination for caravan and camping enthusiasts. Caravan parks and campgrounds cater to travellers exploring the region by road, including those traversing the Gibb River Road.

In terms of visitation, the Shire experienced a substantial influx of tourists in 2019, with a total of 129,000 visitors and 853,000 visitor nights. Only 12% of visitors originated from international locations. Leisure remains the primary motivation for visits, constituting 55% of the overall purpose, followed closely by business-related activities at 39%. Notably, interstate visitors contribute significantly to the business segment, making up approximately 75% of the clientele for local tour and activity operators (Shire of Wyndham-East Kimberley, 2022).

There is very high tourism potential within the Shire, a lot of which is currently leveraged. Diversifying the type, quality and distribution of tourism opportunities in the Shire will support economic growth, employment and strengthen the Shire's identity. Opportunities are summarised as follows:

- Potential to expand existing cultural tourism opportunities, including Aboriginal cultural tourism in smaller settlements, such as Wyndham.
- Increased flexibility of activity in agricultural areas, where landscape values and synergies with agricultural production could be leveraged for events, accommodation and tourism activity.
- Greater promotion of opportunities for eco-tourism on existing pastoral lease land.

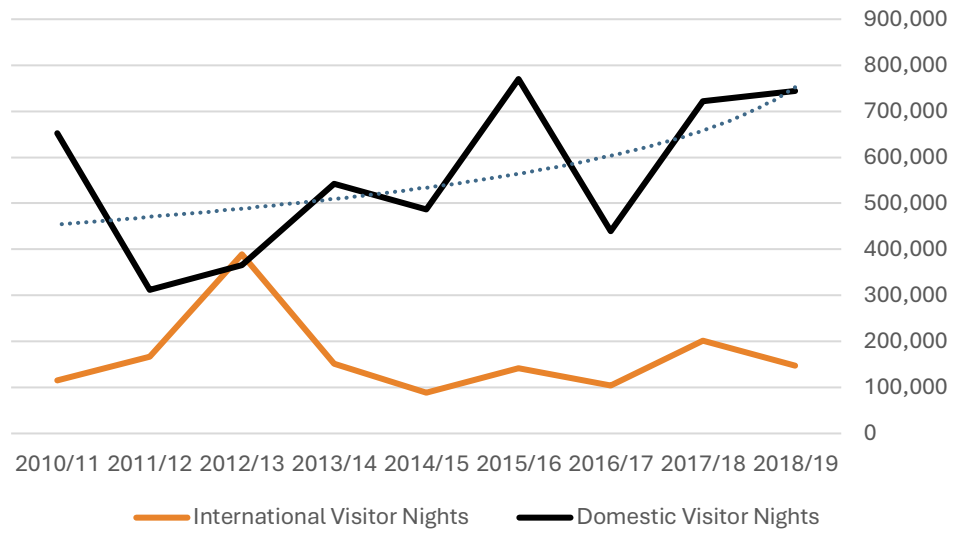


Figure 8 **Tourist visitor nights (2010/11 – 2018/19)**

4.3.9 RESOURCES AND MINING

In 2022-23, mining output (as direct mineral sales) in the Kimberley region was estimated as:

- Derby-West Kimberley $468 million.
- Halls Creek $343 million.
- Wyndham-East Kimberley $4 million.

The Shire produces relatively small amounts of resource and mining output, though Wyndham could act as an export facility for materials produced in the Shire of Halls Creek. Numerous mining projects are in various stages of development and operation.

The marginality of mineral resources in the Kimberley, together with the areas isolation, making mining activity more marginal than in other parts of the Western Australia.

Table 44 Major East Kimberley mining operations (2022-23)

Name	Location	Production
Savannah Nickel Mine	Around 110km north of Halls Creek	A nickel/copper/cobalt-producing mine operated by Panoramic Resources, which trucked product to Wyndham Port. It is currently under care and maintenance.
Ridges Mine	Around 110km south west of Kununurra	The Kimberley Metals Group's Ridges iron ore mine, which trucks ore to Wyndham for shipping.
Argyle Diamond Mine	Around 120km south west of Kununurra	Operated by Rio Tinto, the mine closed in November 2022 and is undergoing decommissioning and rehabilitation.

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*. 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.

4.3.10 AGRICULTURE

The Shire produces approximately $157.6 million of agricultural export every year. This represents approximately 41% of all agricultural export in the Kimberley region. In value-added terms (direct economic benefit) agriculture contributes approximately $95.8 million to the Shire's economy, making it the Shire's second highest contributor to prosperity behind the mining sector. Most of the agricultural output in the Shire is generated by production in pastoral rangeland grazing and through horticultural activity in the ORIA.

Ord River Irrigation Area

Agriculture and food production are continuing to expand in the East Kimberley, facilitated by significant investments from local, State, and Federal governments in the ORIA. Expansion of the ORIA has progressed in numerous stages:

- Ord River Stage 1 – Irrigation of approximately 14,000 ha of farm land for a variety of crops including maize, cotton, mango, citrus, watermelon, rockmelons, pumpkins, chickpeas and sandalwood. This area is generally referred to as the Ivanhoe Plain.
- Ord River Expansion Stage 2 – Goomig Farmlands. Release of a further 7,400 ha for irrigated agriculture.
- Ord River Expansion Stage 3 – Cockatoo Sands. Soil and water investigations that have identified approximately 9,000 ha of suitable land near Carlton Hill Station suitable for fodder or perennial crops. A further 30,000 ha was identified north of Kununurra on the Bonaparte Plain.
- Ord River Expansion – Mantinea Development Area. The Mantinea Development area is located on the south bank of the Ord River, 30 kilometres north-west of Kununurra. It covers about 9500 ha, 430 ha of which has been set aside in the Mantinea conservation excision.

Significant investigations into soil quality and water availability for the expansion of the ORIA since 2012 has provided definition to land in the Shire that requires protection from development. Existing remnant (undeveloped) land on the Ivanhoe Plain, together with existing small horticultural holdings in/nearby to the ORIA present opportunities for rural living and rural enterprise intensification, without compromising the productivity of highly productive land.

4.3.11 HIGH QUALITY AGRICULTURAL LAND

The fertile plains and lower reaches of the Ord River have long been recognised for their potential agricultural production. Sustaining reliable water resources to irrigate these high quality soils is a key factor in realising their production potential. The soils of the Ord Valley area have been extensively studied and mapped over many years and their capability is generally well understood, although reliability of the soil mapping does vary across the region. In 2020, the HQAL study was published by the Shire. The HQAL utilises a range of landscape and environmental data to make an assessment of the suitability of agricultural land in the Ord River valley, near to Kununurra.

The HQAL study identifies several areas that may warrant changes to land use control (namely, zoning) to either protect land with a high suitability for agricultural from inappropriate development and in some instances, investigate rezoning less suitable land for other purposes. Figure 9 identifies portions of land adjacent to the Order River and Victoria Highway (broadly in the Weero Road area) that are identified for potential future land use change.

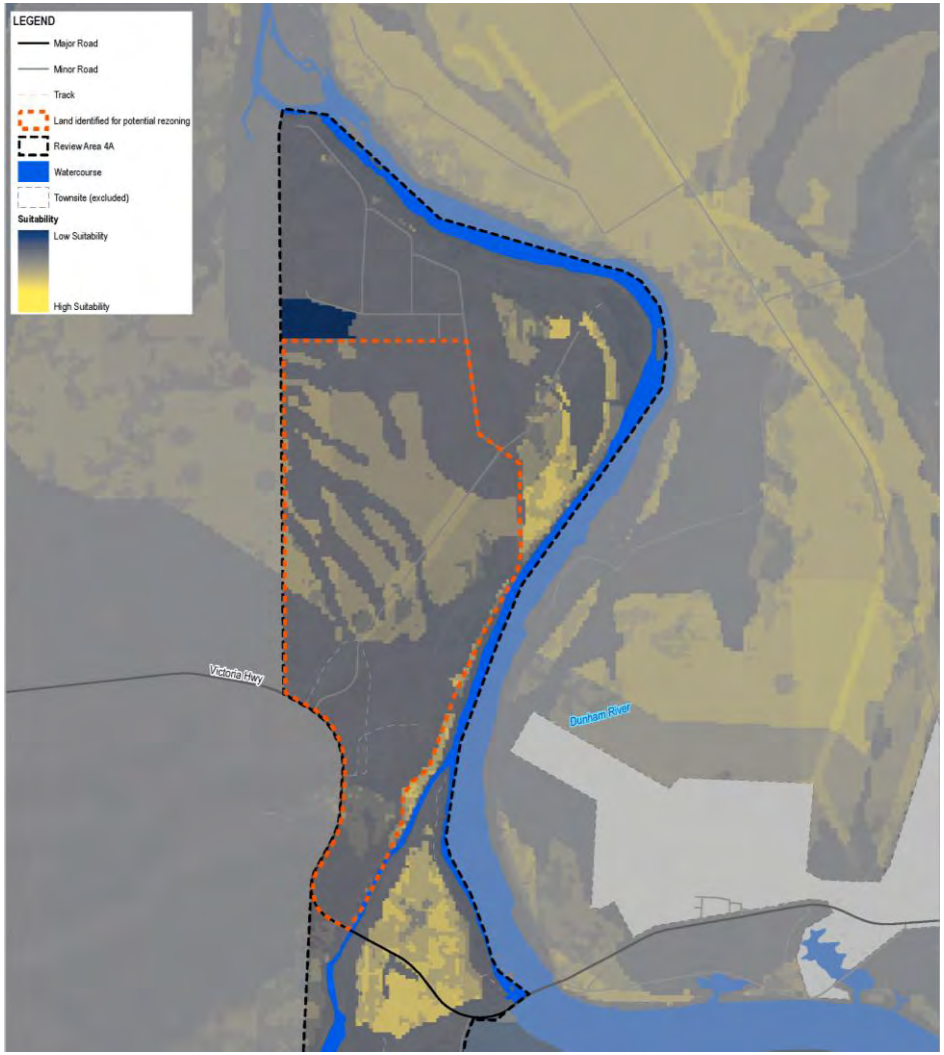


Figure 9 High Quality Agricultural Land Study (Extract) – Victoria Highway – West Weero Road)

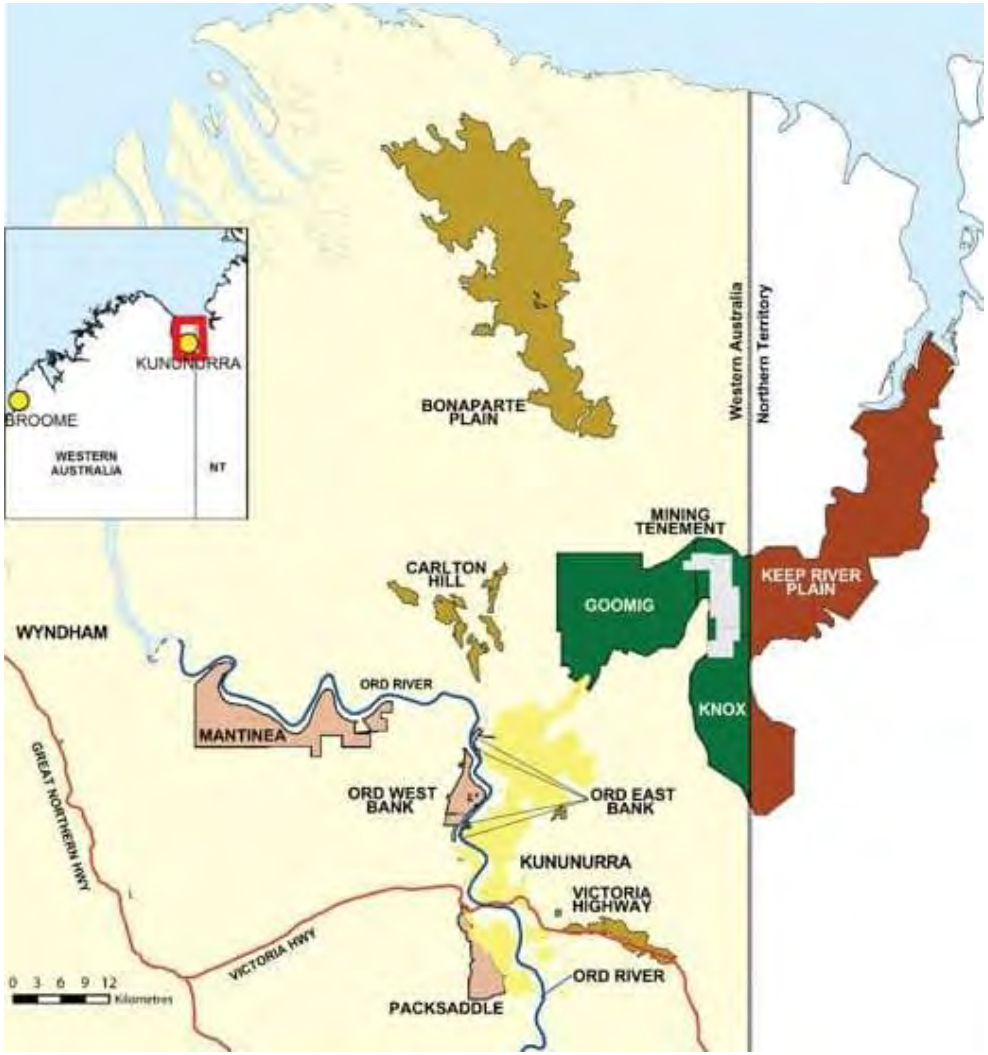


Figure 10 Land parcels involved in the ORIA expansion (Source: DPIRD)

Legend

- Shire of Wyndham-East Kimberley
- Pastoral stations
- Regional centre or town

Roads

- Major road or highway
- Minor road or track

Indian Ocean

Joseph Bonaparte Gulf

Wyndham

Kununurra

Shire of Broome

Shire of Derby West Kimberley

0 25 50 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Pastoral stations

Project No. **12621789**

FIGURE 11

4.3.12 DIVERSIFICATION OF PASTORAL ACTIVITIES

Part 7 of the *Land Administration Act 1997* (LAA) regulates with pastoral leases. There are a number of pastoral lease areas within Shire, covering significant areas of land.

Part 6A of the LAA provides that the Minister may grant a diversification lease to provide for proponents to conduct single, or multiple, land uses on a large area of Crown land, where the proposed lease purpose(s) can coexist with other land uses.

The permitted uses of the land under a diversification lease will be set out in the lease as agreed by the parties, and so is flexible. A diversification lease is designed for broadscale uses such as:

- carbon farming
- multiple concurrent uses – e.g. grazing livestock, horticulture, agriculture, tourism, carbon farming
- Aboriginal economic development and land management
- environmental offsets for mining companies or where their activities are substantially inconsistent with existing pastoral uses
- conservation purposes

4.3.13 ABORIGINAL ENTERPRISE

Aboriginal enterprise plays a significant role in the East Kimberley, contributing to employment, economic activity, and the wellbeing of the Aboriginal community. A series of Traditional Owner and Not-for-Profit Aboriginal enterprise organisations operate within the Shire, providing major community and social services facilities. However, limited access to education, intergenerational welfare dependency, high alcohol consumption, poor health, overcrowded housing, and the erosion of traditional norms and values continue to impact community wellbeing.

To unlock opportunity, it is essential that the Shire's land use planning system actively supports Aboriginal enterprise, removing barriers to developments that contribute to social and economic progress. This approach will enhance the Shire's economic output, strengthen its appeal as a hub for enterprise, and improve socio-economic outcomes for the community.

4.3.14 RENEWABLE ENERGY

The Shire has considerable renewable energy potential with a climate the suites production of solar energy. Renewable hydropower is already produced at the Ord River Hydro Power Station. Low wind speeds and cyclonic activity make the Shire less attractive for wind power generation. Vast pastoral lands and sunny conditions present opportunities for solar energy production in the Shire. However, low local demand and localised power grids limits (and in some instances) prohibits the addition of solar generation to the grid.

The potential for the region to be an exporter of renewable energy (through a transfer vector such as hydrogen and ammonia) is possible, given the existence of deep port infrastructure at Wyndham and proximity to energy markets in south-east Asia.

East Kimberley Clean Energy Project

The East Kimberley Clean Energy project will use renewable energy produced from a 1,000MW solar facilities combined with hydro-electric power from Lake Argyle to produce green hydrogen and green ammonia for export. The project will involve the development of the solar facilities, together with hydrogen and ammonia production facilities, pipelines, transmission lines and road connection to enable export of material through the Port of Wyndham,

The project is a partnership between Balanggarra Ventures, MG Corporation, the Kimberley Land Council and Pollination Group and has the potential to create long-term employment and economic opportunity in both Kununurra and Wyndham.

4.3.15 SPACE INDUSTRY

The Shire of Wyndham-East Kimberley is poised to become a significant player in Australia's burgeoning space industry. With the Western Australian Space Strategy providing a robust framework for growth, and the Australian space industry estimated to be worth $12 billion by 2030 the Shire's unique geographical and infrastructural advantages position it as an ideal location for new space initiatives, particularly for equatorial orbit launches.

The Western Australian Space Strategy outlines several key focus areas, including space mission operations, remote operations, robotics, automation, and space communications. These focus areas align well with the Shire's capabilities and potential. The Shire's vast, undeveloped land, proximity to port infrastructure, and minimal downrange development make it an attractive site for space launch facilities.

Table 45 **Strategic advantages of the Shire for future space industry**

Summary	Advantage
Geographical position	The Shire's location in Australia's north-west is ideal for equatorial orbit launches, which require minimal energy to reach orbit due to the Earth's rotational speed at the equator.
Land availability	Large tracts of land are available, providing ample space for the development of launch sites and associated infrastructure.
Port infrastructure	Proximity to Wyndham Port offers logistical advantages for transporting materials and equipment necessary for space operations.
Runway infrastructure	proximity to airport/runway infrastructure previously used for launching pseudo-satellites by Boeing.
Limited downrange development	The sparsely populated downrange areas reduce the risk and impact of launch activities, enhancing safety and feasibility.
Dark skies	With limited light pollution across the Shire, space tourism could be an emerging industry within the Shire.

Potential for launch sites

The Shire should actively investigate the feasibility of establishing launch sites within its boundaries. This includes conducting environmental and logistical assessments to identify optimal locations. The potential for a launch site near Wyndham Port is particularly promising, given its existing infrastructure and strategic location.

Tourism and investment attraction

The Shire will be centre stage in 2028 when the next total solar eclipse crosses Australia, with a 5 minute eclipse predicted at El Questro Station and 3 minutes at Kununurra and Wyndham. To capitalise on these advantages, the Shire should leverage the Western Australian Government's Investment Attraction Fund. This fund is designed to attract space-based businesses and investments to the region. By promoting the Shire's unique attributes and aligning with state-level strategic goals, the Shire can attract significant investment and foster the growth of the local space industry.

The Shire of Wyndham-East Kimberley stands at the threshold of a new era in space exploration and tourism industry. With its strategic location, available land, and supportive infrastructure, the Shire has the potential to become a key launch site for equatorial orbits, whilst enabling dark sky tourism.



4.4 Environment and cultural heritage

4.4.1 TRADITIONAL LANDOWNER GROUPS

The Shire recognises and respects the connection of its Aboriginal communities to Country and acknowledges the importance of preserving and celebrating this heritage.

Traditional owner groups with recognised ties to this land include:

- Dambimangari
- Uunguu
- Balanggarra
- Miriuwung Gajerrong
- Yurriyangem Taam
- Goorring
- Wanjina-Wunggurr Wilinggin
- Malarngowem

4.4.2 LAND USE AGREEMENTS

The agreement known as the Ord Final Agreement, registered as an Indigenous Land Use Agreement (ILUA) with the National Native Title Tribunal on 16 August 2006, remains one of the most significant native title agreements within the Shire. This agreement provided heritage clearances over approximately 65,000 hectares of land, partly to facilitate the expansion of the Ord River Scheme.

Compensation for impacts associated with the original 1960s Ord River Scheme, including the flooding of the historic Argyle pastoral station to create Lake Argyle which dispossessed local Aboriginal people was central to this ILUA. The Ord Final Agreement resolved compensation matters with Miriuwung Gajerrong claimant groups, establishing provisions for the transfer of freehold titles in areas around the Packsaddle Plain and Kununurra, as well as New Conservation Areas, to the MG Corporation.

More recently the Miriuwung and Gajerrong Conservation Estate and North Kimberley Marine Park agreement was registered as an ILUA with the National Native Title Tribunal on 27 July 2025. This agreement provided for the expansion of Miriuwung Gajerrong conservation reserves, with 170,000 hectares of land to be added to Western Australia's conservation estate. The areas hold significant cultural importance for the Miriuwung Gajerrong and include the Revolver Falls National Park, Packsaddle National Park, reserves near Lake Argyle, proposed additions to the North Kimberley Marine Park, and the proposed Cape Domett National Park.

Beyond the Ord Final Agreement and the MG ILUA, other ILUAs within the Shire influence land use planning, economic development, and heritage protection, recognising the rights and interests of additional Traditional Owner groups, including Dambimangari, Uunguu, Balanggarra, and others. These agreements contribute to sustainable land management, enable cultural and economic opportunities for Aboriginal communities, and ensure alignment with broader conservation goals.

4.4.3 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. There are numerous current and settled Native Title Claims within the Shire. Settled claims within and nearby to major settlements will influence decisions relating to land use, future development and industry growth.

The Shire of Wyndham-East Kimberley has eight determined native title claims and five awaiting determinations. Approximately 4.5% of the land area of the Kimberley is subject to unsettled native title claims. There are several land development opportunities led by Aboriginal corporations and enterprises for land distributed as part of native title claims. This provides an important income source for Native Title holders and Indigenous communities. Determination areas are shown on Figure 14.

Portions of Planning Area E – Weaber Plain Road rural residential investigation area are subject to a native title determination.

Table 46 Native Title determinations and claims

Registered	Awaiting determination
– Dambimangari – Uunguu – Uunguu Area B – Wanjina-Wunggurr Wilinggin – Balanggarra # 3 – Balanggarra (Combined) – Miriuwung Gajerrong – Miriuwung Gajerrong #4	– Balanggarra (Combination) – Yurriyangem Taam – Goorring – Malarngowem – Balanggarra # 4

Legend

- Regional centre
- Major road or highway
- Minor road or track

Native Title Determination (LGATE-066)

- Exists
- Extinguished
- Both

Victoria Highway

Ivanhoe Road

Packsaddle Road

Mirima National Park

Kununurra

0 1 2 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Native Title determinations (Kununurra and surrounds)

Project No. **12621789**

FIGURE 12

Legend

- Regional centre
- Major road or highway
- Minor road or track

Native Title Determination (LGATE-066)

- Exists
- Extinguished
- Both

Bastion Range

Great Northern Highway

Guda Guda Community

0 1 2 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Native Title determinations (Wyndham and surrounds)

Project No. **12621789**

FIGURE 13

Legend

- Shire of Wyndham-East Kimberley
- Regional centre
- Local centre
- Major road or highway
- Minor road or track

Native Title Determination (LGATE-066)

- Exists
- Extinguished
- Both

Indian Ocean

Joseph Bonaparte Gulf

Wyndham

Kununurra

Shire of Broome

Shire of Derby West Kimberley

0 25 50 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Native Title areas

Project No. **12621789**

FIGURE 14

4.4.4 ABORIGINAL CULTURAL HERITAGE

Extensive evidence throughout the Kimberley demonstrates the continual, lasting and significant connection to land by Aboriginal people over thousands of years. Indigenous spiritual beliefs and lifestyle are intimately connected to land, sea and sky and landforms and water bodies that surround them.

European settlement in the Kimberley and the Shire of Wyndham-East Kimberley was a major event in Aboriginal history. Many events since settlement have had a devastating impact on local communities.

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

There several hundred registered Aboriginal heritage sites within the Shire. Under the Act it is an offence for anyone to excavate, damage, destroy, conceal or in any way alter an Aboriginal cultural heritage site without the authorisation. The requirements of the Act relate to any ground disturbing works and therefore will be applicable to any subdivision or development within the Shire.

4.4.5 CLIMATE

The climate of the Shire of Wyndham-East Kimberley is characterized by a tropical savanna climate. It experiences two distinct seasons: a wet season and a dry season. During the wet season, which typically spans from November to April, the region receives heavy rainfall and experiences high humidity. Tropical cyclones occasionally occur during this time, bringing intense rainfall and strong winds. Cyclones impacting the East Kimberley region are very rare. The dry season, from May to October, is marked by clear skies, low humidity, and minimal rainfall. Temperatures during this season are typically warm to hot during the day and cooler at night. Overall, the Shire of Wyndham-East Kimberley enjoys a warm climate year-round, with temperatures moderated by its proximity to the coast.

NATURAL RESOURCE MANAGEMENT

The natural environment of the East Kimberley region is near-pristine and undisturbed. However, it is still vulnerable to degradation and subject to risks from future growth, tourism activity, climate change and improper management.

Some forms of economic development within the Shire have the potential to generate significant natural resource demand. This includes agricultural expansion which places demand on water, soils and results in significant clearing of native vegetation. Balancing the desire for economic development within the Shire with protection of the natural environment and natural resources is a key element impacting land use in the Shire.

This Local Planning Strategy includes actions that seek to develop a local planning framework for managing natural resources including preparation of a:

- Local Biodiversity Strategy.
- District Water Management Plan.
- Landscape and Visual Impact Assessment local planning policy.

Further environmental resource management matters extend to efforts to manage land and waters. This includes management of invasive weed species that threaten waterways, native vegetation and biodiversity. The Neem tree is considered a significant invasive weed, spreading rapidly and threatening native vegetation and ecosystems. It was introduced as a shade tree but its aggressive growth and prolific seed production have made it a major environmental concern. Control efforts are underway, with a focus on targeting infestations along waterways and around sensitive areas like the Lake Kununurra Ramsar site.

Legend

- Shire of Wyndham-East Kimberley
- Local centre
- Regional centre
- Major road or highway
- Minor road or track

Aboriginal Cultural Heritage (DPLH-099 & DPLH-100)

- Registered place
- Lodged place

Indian Ocean

Joseph Bonaparte Gulf

Joseph Bonaparte Gulf Marine Park

Uunguu Indigenous Protected Area

Mitchell River National Park

Drysdale River National Park

Balanggarra Indigenous Protected Area

Ord River Nature Reserve

Wyndham

Ngamoowalem Reserve

Lalang-garram / Camden Sound Marine Park

Dambimangari Indigenous Protected Area

Prince Regent National Park

Kimberley National Park Zone

Kimberley Habitat Protection Zone

Lalang-garram / Horizontal Falls Marine Park

Wilinggin Indigenous Protected Area (IUCN Cat. VI)

Lake Argyle

Bardi Jawi Indigenous Protected Area (IUCN Cat. VI)

Yampi Private Nature Reserve

Charnley River Private Nature Reserve

R 46235 Conservation Park

Shire of Derby West Kimberley

Shire of Broome

Miluwindi Conservation Park

Devonian Reef Conservation Park

Mornington Sanctuary

Tableland Wildlife Sanctuary

Purnululu Conservation Reserve

0 25 50 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Aboriginal cultural heritage places

Project No. **12621789**

FIGURE 15

4.4.6 LANDFORM AND SOILS

The East Kimberley region has a long history, spanning over 2.5 billion years. It began with the formation of rocks through sediment deposition and volcanic activity. Over time, these rocks were uplifted, eroded, and subjected to geological processes like folding and faulting.

Around 375 million years ago, seas deepened, and barrier reefs formed, while erosion created sandstones and conglomerates seen in places like the Bungle Bungle Ranges in Purnululu National Park. Glacial activity during the Permian period affected much of Australia, burying Devonian reefs under sedimentary rocks. Deposition of sandstone, siltstone, and conglomerates continued through the Canning Basin.

The Shire's geology, from red sand dunes to sandstone escarpments, defines its landscape. The oldest rocks, found in the Lennard Hills and Halls Creek ridges, consist of metamorphosed sediments, volcanics, and granites. Coastal areas are low-lying with islands, while the central region features high ranges, gorges, and plateaus, attracting tourists and residents alike with its striking scenery.

4.4.7 BASIC RAW MATERIALS

Basic raw materials are not mapped for the Shire of Wyndham-East Kimberley. Extraction of materials such as various forms of gravels and sands occurs nearby to both Kununurra and Wyndham to supply local construction. The lack of development pressure in these locations reduces the need to formally identify and protect extraction areas.

Development beyond existing urbanised areas, or for new agricultural expansion should consider the potential for the presence of basic-raw materials that may be utilised throughout the Shire.

4.4.8 BIODIVERSITY AND ECOLOGY

The Shire is characterised by its remarkable biodiversity and ecology, shaped by diverse landforms, soils, and water bodies. The conservation of these ecosystems is vital for sustaining the region's natural beauty and supporting its role as a unique and ecologically significant part of Australia.

Numerous areas of threatened and priority flora, fauna and communities are identified in and around Kununurra. The presence of flora, fauna and communities may influence land use planning decisions on the periphery of the Kununurra townsite.

The Shire supports a number of terrestrial threatened fauna species listed under the Commonwealth and State legislation including:

- 13 Vulnerable species (five birds, six mammals and two reptiles).
- Four Endangered species (three birds, one mammal).
- One Critically Endangered bat species.
- 46 State Threatened species (27 snails, 11 birds, 8 mammals).

4.4.9 LEGISLATED LANDS AND WATERS

The Shire contains a number of protected Conservation Parks, Marine Parks, National Parks and Nature Reserves, as well as numerous conservation areas designated for flora and fauna protection, wildlife sanctuaries and traditional Aboriginal cultural use.

Most lands are reserved 'Environmental Conservation Reserve' under Local Planning Scheme 9. However, some portions of conservation areas, including the whole of the Gooming Conservation Park north of Kununurra are zoned Rural.

Table 47 Legislated lands and waters within the Shire

Purpose	Name
Conservation Park	Laterite Conservation Park, Camp Creek Conservation Park
Marine Park	Lalang-garram / Camden Sound Marine Park, Lalang-garram / Horizontal Falls Marine Park, North Lalang-garram Marine Park, North Kimberley Marine Park
National Park	Prince Regent National Park, Drysdale River National Park, Lawley River National Park, Mirima National Park, Mitchell River National Park
Conservation of flora and fauna	Ord River Nature Reserve, Parry Lagoons Nature Reserve, Low Rocks Nature Reserve, Point Spring Nature Reserve, Lesueur Island Nature Reserve, Browse Island Nature Reserve
Wildlife Sanctuary	Pelican Island Nature Reserve
Conservation and traditional Aboriginal uses	Darram Conservation Park, Mijing Conservation Park, Gooming Conservation Park, Ngamoowalem Conservation Park, Darrmalanka Conservation Park, Jemarnde-wooningim Conservation Park, Barrbem Conservation Park, Mijing Conservation Park



Legend

- Shire of Wyndham-East Kimberley
- Operating mines and basic raw material pits (MINDEX)

Mining tenements

- Live
- Pending

Roads

- Major road or highway
- Minor road or track

Indian Ocean

Joseph Bonaparte Gulf

Wyndham

Shire of Broome

Shire of Derby West Kimberley

0 25 50 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Mines and mining tenements

Project No. **12621789**

FIGURE 16

4.4.10 SURFACE WATER

The Kimberley region experiences highly seasonal river flows, especially in the Fitzroy and Ord River systems. Despite being prone to soil erosion and sedimentation, most rivers here offer freshwater with low levels of dissolved solids. The area boasts pristine foreshores and waterways that support diverse ecosystems and serve as crucial fish habitats. Notably, wetlands like Lake Argyle and Lake Kununurra are internationally significant under the Ramsar Convention, which prohibits activities that could harm these sites. Specific wetlands in the Shire, including the Drysdale River and Mitchell River System, are nationally important. To protect these areas, Ramsar guidelines mandate a 50-meter buffer zone between development and water bodies, subject to further assessment.

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. DWER is the responsible authority that issues permit 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.

4.4.11 FLOOD RISKS

The Shire of Wyndham-East Kimberley is susceptible to various natural hazards including flooding. The direct impacts of storm events are usually felt in the western portion of the Shire. Flooding is also a concern, primarily caused by intense rainfall events or cyclonic activity, leading to inundation of low-lying areas, erosion, and disruption of essential services.

Recent flooding in 2023 caused the East Kimberley region to be cut off by road, after the closure of the Victoria Highway at Bulla. The Great Northern Highway which serves the Shire's major settlements and Aboriginal communities, was also closed. The flooding caused major disruptions to the supply chain across the East Kimberley region, leading to shortages of fresh fruit, meat, and vegetables in Kununurra.

The 2023 floods caused significant damage to infrastructure, including roads and bridges. The Fitzroy River bridge, the only sealed road linking Broome with the rest of the Kimberley and Northern Territory, was almost completely destroyed.

4.4.12 DRINKING WATER SOURCES

The Water Corporation oversees the town supply schemes for Wyndham and Kununurra. Public Drinking Water Source Areas (PDWSAs), designated by DWER, safeguard surface and groundwater sources under the *Country Areas Water Supply Act 1947*. These areas, such as the De Grey River Water Reserve and Yule River Water Reserve, require careful land use planning to maintain water quality objectives.

Wyndham's water is reliably supplied from Moochalabra Dam, meeting current demand and future needs. The Moochalabra Creek catchment is managed to protect the town's water source. Industrial growth in Wyndham would necessitate assessing water supply reliability and upgrading conveyance and treatment assets over time.

Kununurra's water comes from bores in a protected aquifer, allowing limited future development. Spare capacity exists in the current system for short-term growth, but long-term demand may require additional infrastructure. If new bore fields aren't feasible, using untreated water sources could raise water treatment costs.

The Kununurra Water Reserve Drinking Water Source Protection Plan (2012) considered several options for water supply expansion, including developing a water treatment facility to take water from Lake Kununurra or Lake Argyle, or develop new bore fields at the Kununurra golf course, Ivanhoe Plain or Packsaddle Plain. All options present complexity in achieving sufficient water quality.

In rural living zones, lots up to 4 hectares will likely necessitate connection to a reticulated domestic water supply, provided it meets capacity requirements. For areas where such supply is unavailable or for lots exceeding 4 hectares, including those zoned 'Rural small holdings', a fit-for-purpose domestic water supply, including for firefighting, may suffice upon satisfactory demonstration of its sustainability and compliance with health and water standards.

Legend

Shire of Wyndham-East Kimberley

Surface Water Areas and Irrigation Districts (DWER-037)

Surface Water Area
Irrigation District

Public Drinking Water Source Areas (DWER-033)

GWTR_ATLAS
Protection Area-P1
Protection Area-P2
Protection Area-P3
Protection Area-P3*
Protection Area-NA

Roads

Major road or highway
Minor road or track

Wyndham

Moochalabra Dam

El Questro

Kununurra

Kununurra bore field

0 5 10 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Project No. **12621789**

Major surface water areas

FIGURE 17

4.4.13 CONTAMINATED SITES

A review of the DWER *Contaminated Sites Database* indicates that the there are several sites within the Shire that are recorded within the Contaminated Sites Database, including areas that are classified as 'Contaminated – remediation required' and 'Contaminated – restricted use'. The local planning framework should have regard to any limits on land use and identify the most appropriate land use planning response in each instance.

4.4.14 BUSHFIRE RISK

The Shire has various bushfire risks due to its diverse landscapes, climate and ecological profile, which include bushland, grassland, coastal areas, and built-up areas.

Prior to development approval, bushfire hazard assessments are often conducted to evaluate the potential risk posed by bushfires. These assessments consider factors such as vegetation types, terrain, weather patterns, and historical fire data to determine appropriate mitigation measures. Vulnerable land use away from major settlements has limited capacity to respond to bushfire threat. Management of bushfire risk and sufficient safety/evacuation planning is critical.

This Local Planning Strategy includes actions that work towards creation of additional rural living opportunities in and around Kununurra and Wyndham. Further industrial expansion is proposed on the periphery of Kununurra. These actions introduce both high-risk land use and infrastructure into bushfire prone areas. In some instances, the need for bushfire management responses such as the creation of secondary emergency access routes may render these locations prohibitive to develop. Early consideration of these factors, as well as the ability to clear vegetation to provide sufficient Asset Protection Zones (APZs) warrants early consideration in any structure planning process.

Beyond the identified planning areas, appropriate management of bushfire risk across the Shire is a key environmental risk matter addressed through this Local Planning Strategy. This Local Planning Strategy includes an action for the Shire, in conjunction with DFES, to prepare a Shire-wide Bushfire Management Plan that considers risk management measures impacting land use around townsites, settlements and remote service centres.

Cultural management of bushfire risk

Balanggarra people, along with other Traditional Owner groups have revied traditional fire management practices involving controlled burns during the cooler months to prevent larger, more destructive fires and promote healthy ecosystems. These practices are part of their 'Healthy Country Plans' and are intended to contribute to carbon emission reduction and improved biodiversity.



Legend

- Bushfire prone area
- Drainage/waterway

Roads

- Major road or highway
- Minor road or track

Ivanhoe Road

Victoria Highway

Mirima National Park

Kununurra

Packsaddle Road

0 1 2 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Bushfire prone areas (Kununurra)

Project No. **12621789**

FIGURE 18

Legend

- Bushfire prone area
- Drainage/waterway

Roads

- Major road or highway
- Minor road or track

Bastion Range

Wyndham

Great Northern Highway

Guda Guda Community

0 1 2 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Bushfire prone areas (Wyndham)

Project No. **12621789**

FIGURE 19



4.5 Infrastructure

4.5.1 WASTE WATER TREATMENT

The Water Corporation holds responsibility for delivering wastewater services in the primary urban centres across the region. There is evidence that the design of waste water systems in Kununurra are not sufficient and come under stress during major rain events.

The Water Corporation has performed numerous reviews into Kununurra's waste-water treatment needs and has identified the need for expansion of waste water treatment capacity in the medium-long term. Previous investigations have considered the potential to relocate the existing facility, located to the west of Ivanhoe Road. The existing location limits residential and tourism development within 500m of the facility, enforced through 'Special Control Area 3' of the Shire's LPS9.

The absence of significant population growth in Kununurra over the last decade has reduced the need for immediate expansion, or commitment to relocation. Pressure for this to occur is expected to increase incrementally over time as population expands.

Wastewater management in Wyndham is at capacity. Water is currently captured, treated in septic tanks before disposal into the Cambridge Gulf. This approach could be a limiting factor on new growth at the Port of Wyndham and may impact the suitability of new rural living growth nearby to Wyndham.

Table 48 Wastewater service demand and capacity (2015)

Settlement	Current demand	Licensed capacity
Kununurra	~1450 kL/d, on average, subject to seasonal variation	2 000 kL/d
Wyndham	~200 kL/d on average, subject to seasonal variation	550 kL/d

4.5.2 WATER AVAILABILITY

Analysis by the Water Corporation in 2015 indicated that the current Kununurra water system would likely have capacity to support new connections over the short term (0-10 years). Current water supply for Kununurra is achieved via a bore field at the edge of Lake Kununurra, protected by a Special Control Area under LPS9. While this provides secure supply for water services to the Town, additional development and increasing demand will likely necessitate infrastructure development (i.e. equipping new bores), or development of a new water source to sustain growth.

The availability of an appropriate water supply in/around Kununurra is critical to ensuring the town can support a growing population, support incoming short-term workers accommodation demand and growing industry. Water supply to other settlements, such as Wyndham and Aboriginal settlements are capable of expansion as demand increases.

4.5.3 ELECTRICAL INFRASTRUCTURE

Energy in the East Kimberley is not supplied through an integrated/interconnected network. Kununurra and Wyndham are supplied with electricity by the Ord River Hydro Power Plant, operated by Pacific Hydro under the *Ord River Hydro Energy Project Agreement Act 1994*. The project provides base-load power delivered via its own 132 kV transmission network and remains the largest generator of renewable energy in Western Australia.

Future population and industry growth will generate additional electrical supply demand. A range of sources are available for increased supply, including additional hydroelectric capacity at Lake Argyle, solar and wind and large-scale energy storage.

In July 2023, the State government announced the trial of a long-cycle vanadium battery for Kununurra. Vanadium batteries are suited to harsh environmental conditions and have the potential to allow the addition of renewable energy sources to the Kununurra electrical grid.

It is assumed that electricity demand from incremental population growth can be managed through network upgrades, increased storage capacity and increased generation – likely in the form of solar generation.

Legend

Urban Growth and Settlement

- Regional centre

Infrastructure

- Major road or highway
- Minor road or track
- Sewer gravity pipe
- Waste water treatment plant buffer area

Ivanhoe Road

Mirima National Park

Kununurra

East Kimberley
Regional Airport

Victoria Highway

0 20 40 60 km

Map Projection: Mercator Auxiliary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

GHD

Shire of Wyndham-East Kimberley
Local Planning Strategy

Sewer network and waste water treatment plant (Kununurra)

Project No. **12621789**

FIGURE 20

4.5.4 WASTE MANAGEMENT

Kununurra is equipped with a landfill facility situated southeast of the town, recently upgraded to accommodate the medium-term waste disposal requirements of the community. Engagement with DWER indicated that the design and positioning of the existing landfill facility is deficient and relocation to a new fit-for-purpose facility would be desired.

Establishment of a comprehensive landfill site capable of servicing Kununurra, Wyndham, and nearby Aboriginal communities is an action of the Local Planning Strategy.

4.5.5 TELECOMMUNICATIONS

The Shire, particularly Kununurra and Wyndham, relies primarily on Telstra's 3G and 4G network for mobile phone coverage. Broadband access, a crucial aspect of telecommunications infrastructure, has historically hindered development in the region.

Despite recent improvements advancements, broadband access outside of Kununurra remains problematic, with satellite broadband often being the only alternative. The telecommunications landscape in Kununurra, while improving, may still lag urban areas in terms of network coverage and broadband accessibility.

The East Kimberley region has received a $7.7 million funding for improvements to telecommunications infrastructure. This funding is part of the Commonwealth's Regional Connectivity Program. This is expected to improve mobile coverage and digital connectivity in the area.

The Shire recently determined development applications for improved telecommunications infrastructure at Lot 555 Crossing Falls Road, Kununurra and Lot 530 Research Station Road, Kununurra, as well as at Berkeley Crescent and Mills Road in Kununurra. Improved telecommunications infrastructure in Wyndham is expected over the coming years.

4.5.6 TRANSPORT NETWORKS

Major roads and heavy vehicles

Expansion of heavy haulage demand because of increased production in the ORIA has resulted in increased heavy vehicles transiting both Kununurra and Wyndham. The Shire's existing Local Planning Strategy identifies the need for a Kununurra northern bypass (including an additional Ord River Crossing) connecting Weaber Plan Road and Ivanhoe Road with the Victoria Highway west of Kununurra. This connection will enable heavy vehicles to bypass the Kununurra townsite and provide more direct connection to the Port of Wyndham and the Shire of Derby-West Kimberley.

In July 2021 the State government announced funding for various road improvements throughout the Kimberley, including upgrades to existing bridges between Bow River and the Ord River (generally between Lake Argyle and Kununurra) (Government of Western Australia, 2021).

Improved roads and haulage routes within the Shire will improve the amenity of existing townsites, improve economic capacity of the region and assist with developing resilience in industry outside of major townsites, such as encouraging more remote mining, tourism and energy industry.

The Tanami Road connects land south of the Shire (beyond Halls Creek) with the interior of the Northern Territory. Main Roads is currently undertaking works to deal and upgrade sections of the Tanami Road to connect to Great Northern Highway. Sealing of the road will improve access, improve tourism offering, and improve supply resilience during road closures.

RAV network

The Restricted Access Vehicle (RAV) network in Western Australia (WA) operates to regulate and manage the movement of heavy vehicles on the state's road network. These vehicles, typically larger and heavier than standard vehicles, require special permits to travel on certain roads due to their size, weight, or the nature of their cargo. The RAV network designates specific routes and roads where these vehicles are permitted to travel, ensuring the safety of both road users and infrastructure.

Rail

At present, no rail infrastructure exists within the region. The resource, pastoral and agricultural sectors rely exclusively on the road network for the transport of goods.

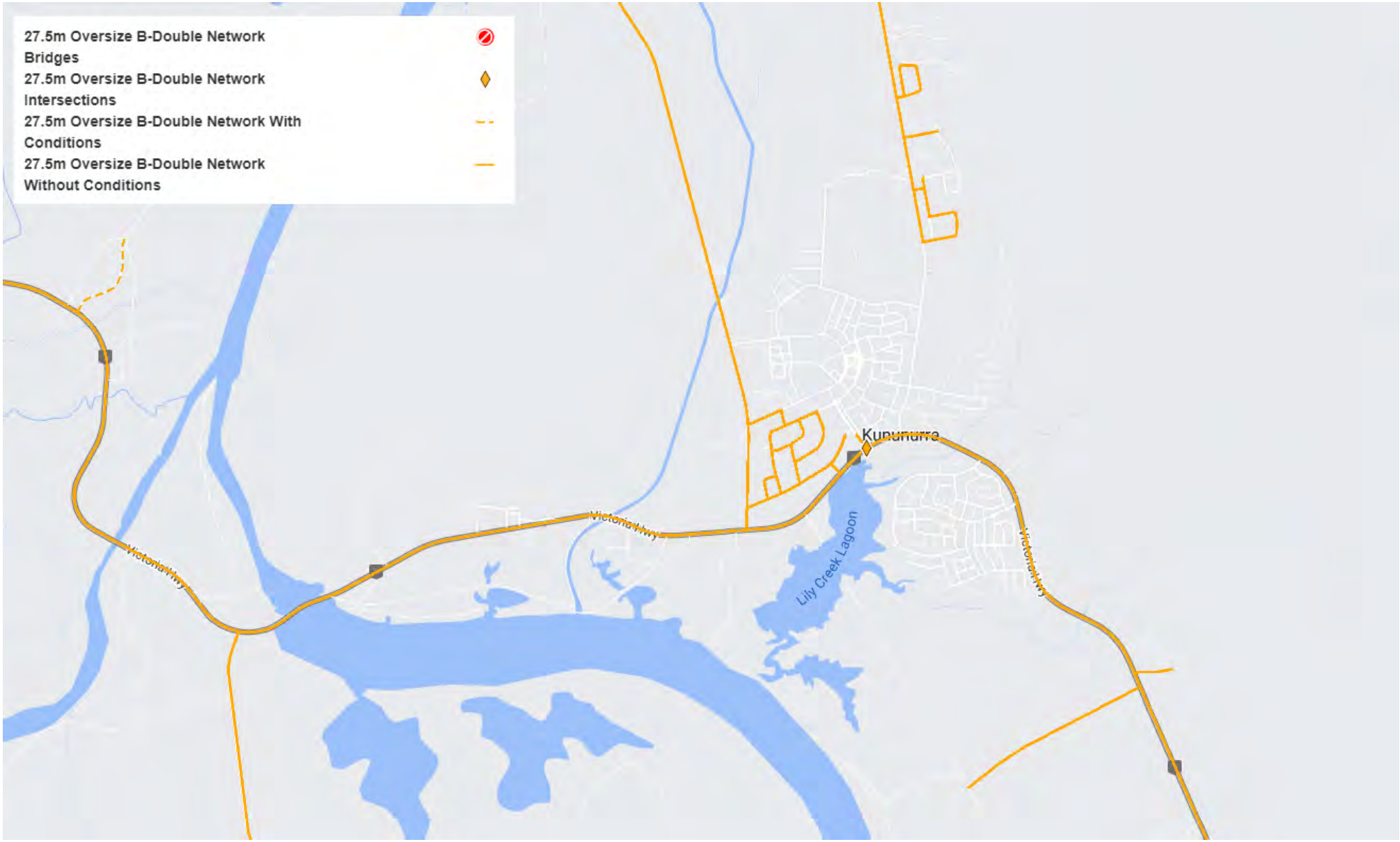


Figure 21 **27.5m B-Double Network (Kununurra)**

Bicycle and pedestrian infrastructure

Some streets in and around Kununurra and Wyndham are provided with footpaths. These are predominately confined to the Kununurra Town Centre area (Coolibah Drive, Messmate Way) and Wyndham Town Centre (Great Northern Highway).

There is no formalised cycling lane infrastructure within the Shire. However, activity data suggests popular cycle routes include routes along Lily Creek Lagoon and Lake Kununurra. There is evidence of sports/fitness cycling through the ORIA.

Public transport

There are no town public transport services or infrastructure being provided in Kununurra or Wyndham. However, an interstate coach service between Broome and Darwin via Great Northern Highway and Victoria Highway connects settlements.

4.5.7 PORTS

The Port of Wyndham is a port that services cruising, offshore projects, exports, and imports. Exports include crude oil, live cattle, raw mined products, scrap metal and maize. Imports include diesel, the occasional explosive vessels, fertiliser, and ammonium nitrate. The Port of Wyndham exports several resources including nickel concentrate, fuel, ammonium nitrate and iron ore, providing a relatively convenient link to export markets. There is also potential in the region to explore a range of renewable energy supplies including algae and biomass-generated biofuels, natural gas and hydrogen.

The closure of cattle-yards in 2020, due to long-term decline in live animal exports, has reduced through-put. Greater capacity at the Port of Broome is likely to provide competition to the Port of Wyndham.

The diversity of materials exported through the Port of Wyndham has provided strength to the ports long-term operation. However, many of the resources exported (aside from most agricultural product) seem to be subject to demand fluctuations (price cycles, government policy etc). Expanding the industrial capacity of the East Kimberley region should increase the throughput in the long-term and secure the ports position as a regionally competitive export facility.

In January 2025, the Commonwealth Government announced that the Port of Wyndham would be granted 'First Port of Entry' status, enabling further handling of imported and exported goods and greater investment in infrastructure. The Commonwealth Government announced plans for $30 million of investment into port infrastructure.

4.5.8 AIRPORTS

East Kimberley Regional Airport

The principal airport for the Shire is the East Kimberley Regional Airport (EKRA), located in Kununurra and owned and operated by the Shire.

The East Kimberley Regional Airport Master Plan (July 2017) forecasts increased airport patronage via increased aircraft landing size over scenarios out to 2030. This included the operation of two B737-8 or Airbus 320-200 aircraft that necessitate the upgrade of existing runway, apron and aviation services at the existing airport.

In October 2021, the Shire was awarded $7.5 m from the Building Better Regions Fund (BBRF) for the first stage of upgrades to the East Kimberley Regional Airport. The upgrades included increased pavement strength, new taxiways and aprons designed to accommodate larger aircraft. In May 2024, the funding for further upgrades to extend the airports runway and develop associated infrastructure. The runway extension will enable larger aircraft to land at the airport including Boeing 737 and Airbus 320 sized airliners.

Increased capacity at East Kimberley Regional Airport has the potential to support significant tourism and industry growth in the region and make the Shire's communities more accessible and attractive for residents, visitors and investment.

The Master Plan identifies the potential for complementary commercial activity to occur on the south-western portion of the airport estate. There is an opportunity for the airport estate to provide for commercial land demand for land use that is less suitably located within the Kununurra town centre.

Other airports

The Shire also owns and operates the Wyndham airport. This smaller facility has two runways, one gravel and one sealed. These can only accommodate smaller aircraft but is extremely important in servicing the numerous remote Aboriginal communities in the western portion of the Shire.

There are also numerous private and government owned airstrips and airports throughout the Shire. As well as servicing pastoral leases and Aboriginal communities, light aircraft are used in the fly-in/fly-out operations for mining, helicopters are used for mustering and there is a growing demand for scenic and tourism flights to such areas as Purnululu National Park, Faraway Bay and El Questro.

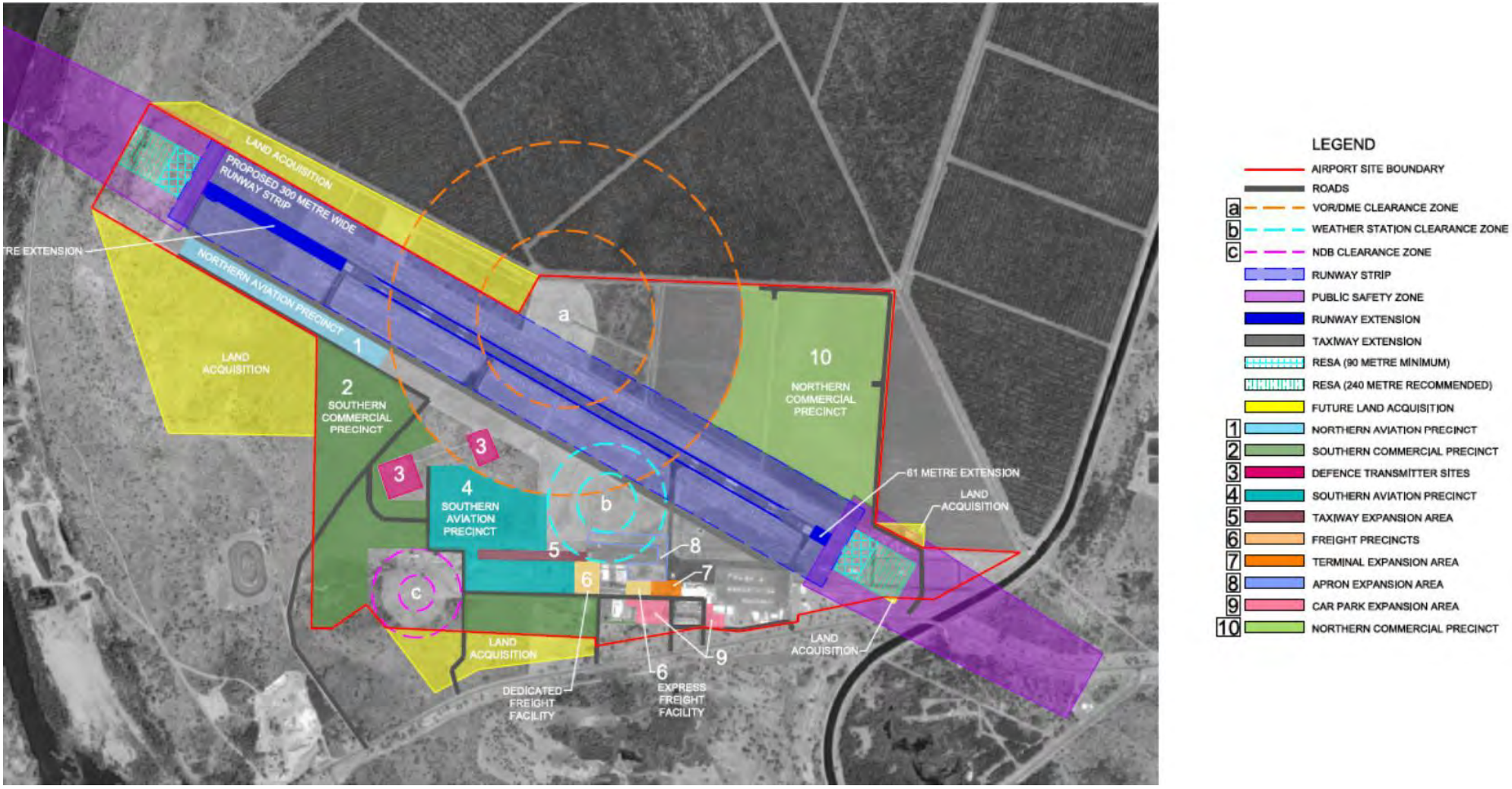


Figure 22 **East Kimberley Regional Airport Masterplan 2017 (Land Use Plan)**

Appendix A

Engagement Summary

Appendix B

Consultation Summary

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The Power of Commitment