

The Mid and North Western Australia Investment Portfolio 2016





ACKNOWLEDGEMENTS

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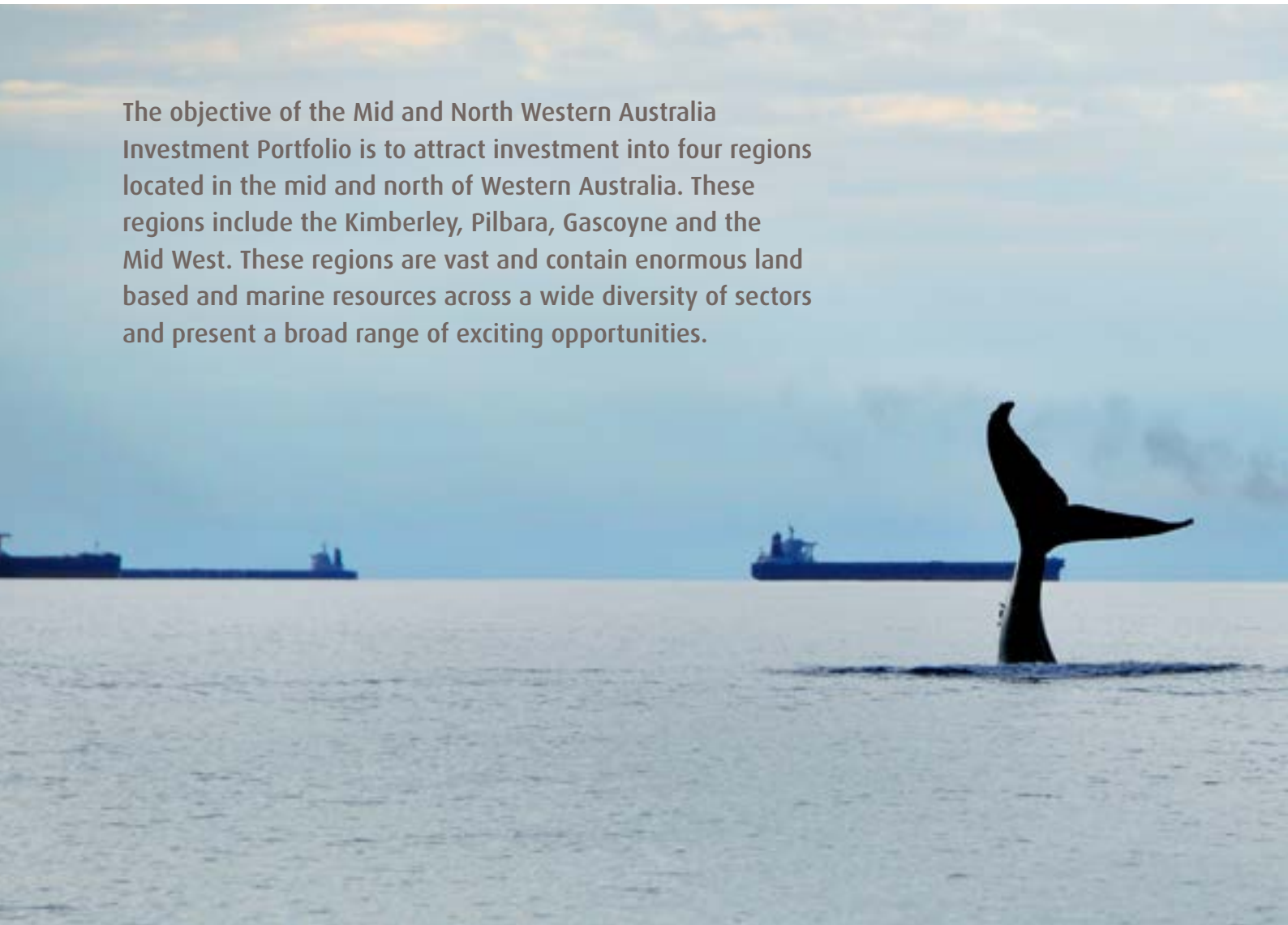
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Foreword

The objective of the Mid and North Western Australia Investment Portfolio is to attract investment into four regions located in the mid and north of Western Australia. These regions include the Kimberley, Pilbara, Gascoyne and the Mid West. These regions are vast and contain enormous land based and marine resources across a wide diversity of sectors and present a broad range of exciting opportunities.



The Portfolio has been prepared to align with the Regional Investment Blueprints and Regional Plans that have been developed for each of the four regions. These Blueprints contain very detailed economic and social assessments as well as the growth strategies to 2050. This Portfolio is both organic and dynamic. It provides a compendium of different projects and investment opportunities at a particular window in time. Some of the projects are purely commercial in nature, that being they are seeking capital in its various forms.

Other projects are being promoted by public authorities and lend themselves to public-private partnerships to bring the development to fruition. The third category is projects that address what can be called the “enabling environment”. These are often longer-term programmes, which are providing the research and regulatory framework that will stimulate private sector investment. As will be showcased in the Portfolio, the potential economic benefits of these major initiatives are substantial.



For a significant number of the projects, particularly those presented by commercial entities, more detailed project profiles have been prepared which include financial information and the status of development. The intention of the Portfolio is to present an overview of each of the proposed projects.

The overarching theme of the Portfolio is to encourage economic diversification. It is not a document that lists the major resource sector investments or primarily promotes the well-known mineral

and petroleum endowments of the regions. Instead, it focuses on projects and opportunities that will deepen and diversify the economies of the four regions. Some of these projects are relatively small but have the potential for creating new economic clusters. Others, such as tourism and agriculture, will restore the balance between the main economic drivers of the regions.

The Portfolio aims to demonstrate the interconnectedness of the four regions and the synergies that can be achieved by joint promotion by both Federal and State Government organisations.



SECTION A

Introduction to the Regions

1. GEOGRAPHIC ADVANTAGES OF THE FOUR REGIONS

The Kimberley is Western Australia's most northerly region, with the Pilbara to the immediate south, followed by the Gascoyne and the Mid West. The regions are linked from a Federal and Western Australia State government development perspective, by geography, and a continuous and resource rich coast line from north to south of over 6,000 km. There are also transport links and water sources that cross boundaries. Regional tourism opportunities and the vast agricultural, mining and petroleum resources abound.

Australia's north is unique in the developed world¹. It sits at the intersection of the two great regions of global economic and population growth — Asia and the Indian Ocean Rim:

- The booming economies of South East Asia and Southern China are within easy reach by air or sea via the major ports located in the four regions;

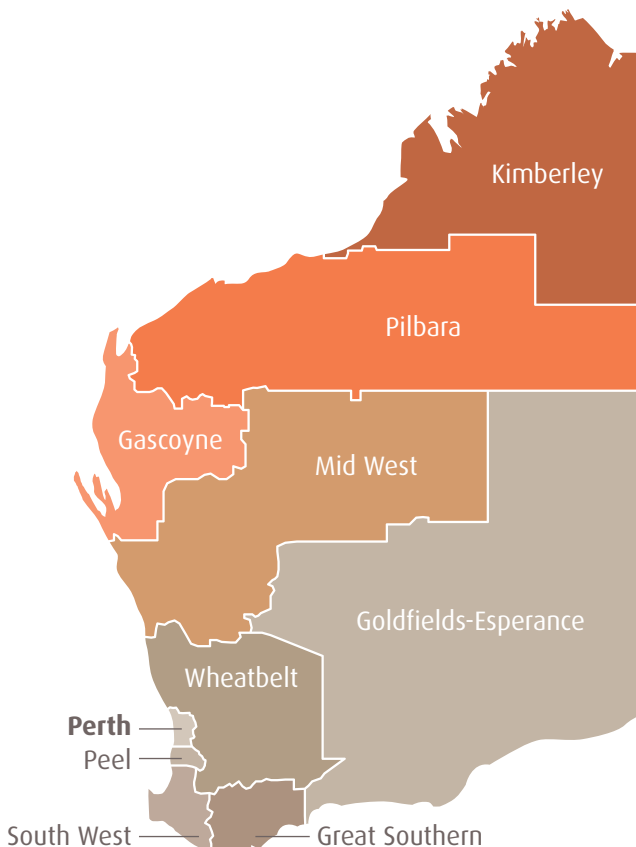
- The Indian Ocean Rim includes rapidly developing economies such as India and resource rich countries along the East African seaboard;
- By 2030 Asia will represent approximately two-thirds of the global middle class population;
- The four regions operate in similar time zones to the most dynamic economies in Asia, a particular advantage for service industries; and
- Australia has concluded Free Trade Agreements (FTAs) in Asia with Japan, South Korea and China. It is in ongoing negotiations with India, Indonesia and developing multi-country initiatives such as the Trans-Pacific Partnership (TPP), the Regional Comprehensive Economic Partnership (RCEP) and the Pacific Agreement for Closer Economic Relations (PACER).

2. GOVERNANCE AND ECONOMIC DEVELOPMENT

The four regions all have governance structures that involve Federal, State and Local Government Authorities (Shires, Cities and Towns) which have diverse responsibilities for economic development, planning and local area service provision. Regional Development Commissions and Regional Development Australia (RDAs) are responsible for the social and economic development of each of the regions and their plans to do this are encapsulated in documents such as the Regional Investment Blueprints and Regional Plans. There are a number of other important stakeholders that support, facilitate and encourage economic and social development and these include Chambers of Commerce and Industry, Small Business Centres, sector associations (tourism, mining, farming etc) and private enterprise.

The State Government departments dealing with agriculture and food, water, tourism, commerce, lands, planning, regional development, main roads, ports, transport, education and health have a major role to play in all aspects of development planning and implementation in the regions.

The Department of Regional Development is a key agency that manages the planning and implementation of the Royalties for Regions programme. Since December 2008, Royalties for Regions has invested \$4.2 billion of the State's mining and onshore petroleum royalties in more than 3,500 projects across regional Western Australia.



Australia's north is unique in the developed world. It sits at the intersection of the two great regions of global economic and population growth, Asia and the Indian Ocean Rim.

¹ Australian Government – Our North, Our Future, White Paper on Developing Northern Australia - 2015



3. AUSTRALIAN GOVERNMENT POLICY ON DEVELOPING THE NORTH OF AUSTRALIA²

Investors can base decisions on policy certainty from the Federal Government on developing the north of Australia and encouraging investment, which has become a central policy imperative for the country.

Even though over one million people live in the north including all of the Northern Territory and those parts of Western Australia and Queensland above the Tropic of Capricorn, it accounts for over half of the sea exports of Australia. Thriving and diverse exports in minerals, energy, agriculture and tourism underpin national income. The earnings from the Pilbara alone are larger than the individual economies of 134 countries, but are generated by only 60,000 people³.

The Federal Government will make significant investments of over \$1.5 billion to assist in realising the vision of the north, which will be of major benefit to the four regions in this portfolio. These include infrastructure, water, land and business trade and investment.

4. AUSTRALIA FREE TRADE AGREEMENTS (FTAs)

Australian trade policy is favourable for the four regions. Australia has signed 10 FTAs that are of prime importance to the four regions. Seven of these are with major trading partners in Asia, including for example, China and the Association of Southeast Asian Nations (ASEAN). Other signed agreements are with the United States of America, New Zealand and Chile. In addition, there are six FTAs and partnership agreements under negotiation, including the Trans-Pacific Partnership (TPP) Agreement, and agreements with the Gulf Cooperation Council, India and Indonesia.

Benefits include significant tariff reduction for most of the commodities produced for export in the four regions with increased incentives for both inward and outward investment flows.

The trade value and benefits of the agreements to Western Australia and the four regions is significant. For example the ASEAN-Australia-New Zealand FTA has a trade value of over \$7.2 billion to Western Australia. Under this FTA zero or very low export tariffs apply on a wide range of commodities produced in the regions, including agriculture, minerals, and

petroleum products. The FTA with South Korea is based on elimination of tariffs on 99.8% of Australia's exports (by value). Australia is one of 12 countries, including the USA, to agree on the TPP Agreement, which will cover 40% of the global economy and eliminate approximately 98% of tariffs on Australian agricultural exports. These developments could have major significance for the agricultural diversification of the four regions.

5. INVESTMENT BLUEPRINTS

The four regions have prepared Regional Investment Blueprints covering the period up to 2050. These are comprehensive documents designed to guide and shape the transformation of the regions well into the future through managed investments in key growth opportunities. They recognise the diversity and significant resources of the regions and create platforms for development options that can be both assessed and monitored. They also create a platform for leaders to engage constructively across all levels of government, community and industry and set measurable targets across the key industry sectors. The targets have purposefully been set at levels that create aspiration. The Blueprint for each region is accessible through the website of the respective Development Commission for that region.

² Australian Government – Our North, Our Future, White Paper on Developing Northern Australia - 2015

³ Pilbara Development Commission, 2013.



6. ASPIRATIONS AND INVESTMENT OPPORTUNITIES

All of the four regions offer substantial investment opportunities in the short, medium and long term. Comprehensive investment frameworks and broad based targets and aspirations are provided by the Regional Investment Blueprints. Examples of key of investment aspirations include:

The Kimberley - agriculture targets by 2035:

- Increase irrigated area in the Ord, La Grange, Knowsley/Fitzroy Valley, Cockatoo Sands and Goomig areas by at least 60,000 hectares (ha) and potentially far more;
- Triple the Gross Regional Value (GRV) of agricultural production to \$750 million per annum;
- Increase export earnings to \$590 million per annum; and
- Increase opportunities for up to 25,000 tonnes of fresh fish per annum for export into Asian close proximity markets.

The Pilbara – broad objectives:

- Increase the population to over 140,000 by 2035;
- Build the population of Karratha and Port Hedland into cities of 50,000 people, and Newman to 15,000, by 2035, with other Pilbara towns growing into more attractive, sustainable local communities;
- Double the current gross value of agricultural product of the Pilbara to \$160 million and build a cohesive and collaborative agricultural and beef industry;

- Establish commercial aquaculture and algae production facilities. The Pilbara has some of the highest levels of solar radiation on the planet which makes the region well suited for algae and pond-based aquaculture, while the Dampier Archipelago offers ocean-based opportunities;
- Broaden the economic base through the promotion, fostering and growth of new industries and businesses;
- Build upon and add value to the strengths of the foundational industry to deepen regional economic activity; this can include value adding to raw materials, increased capture of upstream supply chains expenditure in the region or innovative use of existing infrastructure and economic capacity; and
- Investment in activities, infrastructure, facilities and services that catalyse and enable the private sector and the community to grow and prosper in order to make the Pilbara an attractive place to live, work, invest and visit.

The Gascoyne – aims to increase by 2050:

- Gross Regional Product (GRP) from \$869 million to \$1,740 million;
- Tourism expenditure from \$222 million to \$686 million;
- Value of pastoral production from \$35 million to \$60 million;
- Value of fishing and aquaculture from \$50 million to \$90 million;
- Value of salt production from \$100 million to \$233 million; and
- Production of minerals increase to 23 million tonnes per annum.

The Mid West – key future objectives:

- Generate 10,000 new jobs by 2025 and an additional 35,000 by 2050;
- An increase in GRP of 5% exceeding the national average and rival other leading regions in Western Australia;
- Increase port tonnages from 15 million tonnes to 60 million tonnes per annum by 2050;
- Development of the Oakajee Port;
- Completion of new road and railway corridors to integrate the region's transport networks with those of the north, south and east of the State;
- Connection of the Yilgarn area, Mid West and Pilbara regions to ports in Geraldton/Oakajee, Esperance, Port Hedland and Fremantle as part of the PortLink Inland Freight Corridor;
- Extension of the 330 kilovolt transmission line to Three Springs and to Geraldton/Oakajee;
- Establishment of a freight, logistics and industrial hub at Oakajee;
- Servicing the State's strategic defence force presence in the North West;
- Expansion of food production;
- Development of education, knowledge and innovation sectors; and
- Development of telecommunications and digital networks.

7. THE SCALE OF MARINE AND LAND AREAS OF THE REGIONS

The sheer dimensions of the marine and landmasses present a unique investment opportunity. The total area of the four regions is approximately 1,536 million km²:

- Kimberley 423,517 km²;
- Pilbara 502,000 km²;
- Gascoyne 138,000 km²; and
- Mid West 472,336 km².

The total area of the regions is 35% that of the entire European Union land area.

There are major environmental advantages, including active and successful environmental and ecological preservation. There is an abundance of well-conserved land for development.

The North West Marine Region (from Kalbarri in the Mid West to the north of the Kimberley region) covers a vast area of some 1.07 million km². The regions have extraordinary coastlines with a total length of over 6,000 km, thousands of islands, numerous world-class beaches, magnificent scenery, clear water, coral reefs and three world heritage areas. The Kimberley alone has some 2,633 islands, two Archipelagos and an extensive system of fringing reefs.

8. THE REGIONAL ECONOMIES

The economies of the regions have grown rapidly and will continue to grow, due to the advantages of geographic location (proximity to Asia), diverse and large scale minerals and petroleum reserves and anticipated diversification including agriculture, aquaculture, tourism, energy and services.

Table 1: Gross Regional Product (GRP) of the Regions

Region	GRP (\$billions) 2014
Kimberley	3.4
Pilbara	34
Gascoyne	0.9
Mid West	7
Total	45.3

Source: Development Commissions and REMPLAN data

Table 2: Aspirational Population Growth

Region	Current Population	Forecast Population 2026	Target Population 2050
Kimberley	40,000	53,000	100,000
Pilbara	65,000	86,000	200,000
Gascoyne	10,000	12,000	23,000
Mid West	58,000	68,000	190,000
Total	173,000	219,000	513,000

Source: Department of Planning, WA Tomorrow 2015 & Development Commission Blueprints

The GRP of the Pilbara alone is larger than the Gross Domestic Product (GDP) of over 100 countries in the world. Increased volumes of iron ore and a very significant increase in Liquefied Natural Gas (LNG) production over the next year will add further to growth in the near term despite the recent falls in commodity prices.

The populations of the regions are diverse and are projected to grow over the next 20 years. There are five main town centres in the Kimberley (Broome, Kununurra, Wyndham, Derby and Halls Creek); five in the Pilbara (Newman, Tom Price, Port Hedland, Karratha and Onslow); three in the Gascoyne (Carnarvon, Shark Bay and Exmouth) and four in the Mid West (Geraldton, Dongara-Denison, Morawa and Mount Magnet).

A number of the town centres are fully serviced with a range of business and residential accommodation, secure water supplies, and adequate waste-water infrastructure. There is adequate power from the national grid and increasingly locally sourced energy supplies are in place or planned.





SECTION B

Selection of Investment Opportunities

Executive Summary Of Project Opportunities

Service and Community Investment Opportunities

Project Name	Proponent/Lead Agent	Region/Location	Timeframe	Indicative Capital Cost (A\$)
Finbar Apartments and Retail Precinct	Finbar Group Ltd	Pilbara Karratha	Short	\$15m
<ul style="list-style-type: none"> • Seacrest Estate • Seafields Land Development Site • Wavecrest Land Development Site • Flour Mill Development Site 	Humfrey Land Developments	Mid West Geraldton	Short to Medium	\$200m
Lot 314 Lazy Lands Initiative	Shire of Ashburton	Pilbara Onslow	Short to Medium	\$1.5m
Karratha Arts and Community Precinct	City of Karratha	Pilbara Karratha	Short to Medium	\$54m
West End Arts and Culture Project	West End Projects Australia T/A Archipelago Arts	Pilbara Karratha and other NW regions	Short to Medium	\$5m
Expand Sewage Treatment Plant	Shire of East Pilbara	Pilbara Newman	Short to Medium	\$10m
Civic Centre Expansion	Shire of East Pilbara	Pilbara Newman	Short to Medium	\$6m
Paraburdoo Community Hub	Shire of Ashburton	Pilbara Paraburdoo	Short	n/a
Tom Price Community/ Youth/Day Care	Shire of Ashburton	Pilbara Tom Price	Short	\$12m
Three Springs Multipurpose Childcare Centre	Shire of Three Springs and Three Springs Childcare Inc	Mid West Three Springs	Short	\$2.2m
Carnarvon Airport Residential Project	Shire of Carnarvon	Gascoyne Carnarvon	Short to Medium	n/a

Short Term = One Year

Medium Term = Two to Five Years

Long Term = > Five Years

Transport Infrastructure Investment Opportunities

Project Name	Proponent/Lead Agent	Region/ Location	Timeframe	Indicative Capital Cost
Newman Airport Transport Hub	Shire of East Pilbara	Pilbara Newman	Short to Medium	\$10m
Tanami Road – Halls Creek to Alice Springs	Shire of Halls Creek	Kimberley Halls Creek	Short to Medium	\$625m
Exmouth Multi-Purpose Deep Water Wharf	Shire of Exmouth in partnership with Western Australia Department of Transport	Gascoyne Exmouth	Short to Medium	\$45m
Batavia Coast Marina Stage 2	LandCorp	Mid West Geraldton	Short to medium	\$20m
Karratha – Tom Price Road	Shire of Ashburton	Pilbara Karratha Tom Price	Short to Medium	\$250m
Lumsden Point	Pilbara Ports Authority	Pilbara Port Hedland	Medium	\$400m

Minerals and Energy Investment Opportunities

Project Name	Proponent/Lead Agent	Region/ Location	Timeframe	Indicative Capital Cost
Rare Earths	Northern Minerals	Kimberley	Medium	\$329m
Magnesium Material Recovery	Ecomag Pty Ltd	Pilbara Port Hedland	Short	\$40m
Blina Diamond Project	Phosphate Australia Ltd	Kimberley	Medium	\$5m
Coburn Heavy Mineral Sands Project	Strandline Resources (Gunson Resources Ltd) – Coburn	Gascoyne	Short to Long	\$202m
Waste Management – Engine Oil	Ashburton Aboriginal Corporation (AAC)	Pilbara Tom Price	Short to Medium	\$2m
Waste Management – Tyres	Ashburton Aboriginal Corporation (AAC)	Pilbara Tom Price	Short to Medium	\$17m
Sea-Nergy Renewable Hydrogen	Sea-Nergy Pty Ltd	Gascoyne Carnarvon	Short to Medium	\$40m

Industrial Development Opportunities

Project Name	Proponent/Lead Agent	Region/ Location	Timeframe	Indicative Capital Cost
<ul style="list-style-type: none"> • Shire of Broome - Construction Services • Shire of Broome - Logistic Services • Shire of Broome - Marine Services 	Shire of Broome	Kimberley Broome	Short to Long	n/a
Broome Road Industrial Park	LandCorp	Kimberley Broome	Short to Long	n/a
North West Strategic Industrial Areas	LandCorp	Kimberley/ Pilbara/Mid West	Short to Long	n/a
Shire of Broome SME Project	Shire of Broome	Kimberley Broome	Short to Medium	n/a
Shire of Ashburton Industrial, Resource, Marine Development	Shire of Ashburton	Pilbara Onslow	Short to Long	\$10m
Kingsford Business Park	Town of Port Hedland	Pilbara Port Hedland	Short to Medium	n/a
Wedgefield Industrial Estate	LandCorp	Pilbara Port Hedland	Short to Medium	n/a
Carnarvon Airport Industrial Project	Shire of Carnarvon	Gascoyne Carnarvon	Short to Medium	n/a



Agriculture and Aquaculture Investment Opportunities

(I) CROPS

Project Name	Proponent/Lead Agent	Region/ Location	Timeframe	Indicative Capital Cost
<ul style="list-style-type: none"> • Ord East Kimberley Expansion Project • Cockatoo Sands • Ord East Bank • Cockatoo Sands/Bonaparte Plains * Enabling Environment 	Department of Regional Development	Kimberley Kununurra	Short to Medium	\$341m+
Water for Food West Kimberley Initiative * Enabling Environment	Department of Water	Kimberley	Short to Medium	n/a
Knowsley Agriculture Area (KAA) Water Investigation * Enabling Environment	Department of Water	Kimberley	Short to Medium	n/a
Mowanjum Irrigation Project * Enabling Environment	Department of Water	Kimberley	Short	\$50m
La Grange West Canning Project * Enabling Environment	Department of Water	Kimberley	Short to Medium	n/a
Fitzroy Valley Ground Water Investigation Project * Enabling Environment	Department of Water	Kimberley	Medium	n/a
Sunny Side Farm Horticultural Project	Sunny Side farm & Ray White (Derby) Ltd	Kimberley Derby	Short	\$1.8m
Halls Creek: Flora Valley	Shire of Halls Creek	Kimberley Halls Creek	Medium to Long	\$620m
Halls Creek: Margaret River Dam	Shire of Halls Creek	Kimberley Halls Creek	Medium to Long	\$350m+
Pilbara Hinterland Agricultural Development Initiative (PHADI) * Enabling Environment	Department of Agriculture and Food, Western Australia	Pilbara	Medium	\$280m+
Gascoyne Food Bowl Initiative * Enabling Environment	Department of Agriculture and Food, Western Australia	Gascoyne Carnarvon	Short	\$30m
Middle Gascoyne Water Investigation * Enabling Environment	Department of Water	Gascoyne Carnarvon	Medium to Long	\$24m+
Midlands Groundwater and Land Assessment project * Enabling Environment	Department of Water	Mid West	Medium to Long	\$30m
Jurien Bay Groundwater Allocation Plan * Enabling Environment	Department of Water	Mid West	Short to Long	\$1.45b
Arrowsmith Groundwater Allocation Plan * Enabling Environment	Department of Water	Mid West	Short to Long	\$2b+

Multi – Food Processing Plant	Gascoyne Food Council	Gascoyne	Short	\$4.8m
Ecana Organic and Natural	Ecana Ltd	Gascoyne Carnarvon	Short to Medium	\$3m
Mid West Agriculture/ Bio-energy Project	Energy Farmers Australia Pty Ltd	Mid West	Short to Medium	\$20m
Crop to Kilowatt project	C2k Pty Ltd in association with AgGrow Energy Resources Pty Ltd	Pilbara	Short to Medium	\$40m

(II) LIVESTOCK: BEEF AND SHEEP

Project Name	Proponent/Lead Agent	Region/ Location	Timeframe	Indicative Capital Cost
Northern Beef Futures Project * Enabling Environment	Department of Agriculture and Food Western Australia	Kimberley/Pilbara/ Gascoyne /Mid West	Short to Medium	n/a
Halls Creek Horse and Donkey Abattoir	Shire of Halls Creek	Kimberley Halls Creek	Short	\$10m
Wyndham Abattoir	To be determined	Kimberley Wyndham	Short	\$30m+
Remote Monitoring of Stock and Assets	Tech Shepherd & Austin Partnership	Mid West Murchison Rangelands	Short to Medium	\$2-\$5m
Western Australia Sheep Industry Business Innovation Project * Enabling Environment	Department of Agriculture and Food, Western Australia (with Department of Regional Development, Department of Water and Department of Lands)	Mid West	Short to Medium	n/a

(III) AQUACULTURE

Project Name	Proponent/Lead Agent	Region/ Location	Timeframe	Indicative Capital Cost
Pilbara Edible Oyster Joint Venture	Joint Venture Partners: Thalanyji Aboriginal Corporation Maxima Opportunity Pty Ltd.	Pilbara	Medium	\$2m

Tourism Investment Opportunities

Project Name	Proponent/Lead Agent	Region/ Location	Timeframe	Indicative Capital Cost
Shire of Broome – Tourism	Shire of Broome	Kimberley Broome	Short to Medium	n/a
Nyamba Buru Yawuru Tourism Opportunity	Nyamba Buru Yawuru Ltd	Kimberley Broome	Short to Medium	n/a
Broome Marina	Kimberley Accommodation	Kimberley Broome	Short to Medium	\$300m
<ul style="list-style-type: none"> • Back Beach Tourism Site • East Wallabi • Exmouth • Leeman 	Humfrey Land Developments	Mid West Geraldton	Short to Medium	\$100m+

Tourism Investment Opportunities (continued)

Project Name	Proponent/Lead Agent	Region/ Location	Timeframe	Indicative Capital Cost
Luxury Tourism East Kimberley (under discussion)	Shire of Wyndham East Kimberley	Kimberley Kununurra	Short to Medium	\$40m+
Eco Tourism Hotel and Island Eco and Glamping Facilities West Pilbara	City of Karratha	Pilbara Karratha	Short to Medium	\$40m+
Mt Augustus Tourist Park	Shire of Upper Gascoyne	Gascoyne	Short to Medium	\$7.8m
Carnarvon Old Justice Site Development * Enabling Environment	Department of Lands	Gascoyne Carnarvon	Short	\$33m
Marina Facility Shark Bay	Shire of Shark Bay	Gascoyne Shark Bay	Short to Medium	\$300m
Carnarvon One Mile Jetty	Carnarvon Heritage Group	Gascoyne Carnarvon	Medium	\$4.5m
West Carnarvon Babbage Island Tourism Precinct * Enabling Environment	Department of Lands	Gascoyne Carnarvon	Short to Long	n/a
Sunday Island Bay, Eco Accommodation Dirk Hartog Island	DHI Development Pty Ltd	Gascoyne Denham	Short to Medium	\$30-\$40m
Francois Peron National Park, Shark Bay Project (under discussion) * Enabling Environment	Department of Parks and Wildlife	Gascoyne Shark Bay	Medium	\$30-\$100m
Department of National Parks and Wildlife • Kimberley Region Tourism Opportunities • Pilbara Region Tourism Opportunities • Gascoyne and Mid West Coral Coast Tourism Opportunities • Gascoyne Region Inland Tourism Opportunities • Mid West Inland Tourism Opportunities * Enabling Environment	Department of Parks and Wildlife	Kimberley/Pilbara/ Gascoyne/Mid West	Short to Medium	n/a

Education and Health Investment Opportunities

Project Name	Proponent/Lead Agent	Region/ Location	Timeframe	Indicative Capital Cost
Shire of Broome (Kimberley) – Education	Shire of Broome	Kimberley	Medium to Long	n/a





Service and Community Investment Opportunities

01

The forecasted growth in the population is expected to result in an increase in demand for services, including retail, wholesale, commercial and government. Growing populations are anticipated to result in a projected need for increased housing stock of some 50,700 over a 20 year period to 2036 (Kimberley 13,000, Pilbara 25,000, Gascoyne 2,000 and Mid West 10,700). The value of construction will be in the order of \$25 billion or \$1.3 billion per annum, providing a significant investment opportunity.

A significant investment through Royalties for Regions into community infrastructure continues. These investments in many cases are complemented by investment from the respective local governments, and often by the major resource companies active in a particular community. As just one example the State Government, Shire of Ashburton, Chevron Australia and BHP Billiton have combined to deliver major new community facilities in the town of Onslow, ranging from transport infrastructure to power and water upgrades to community health and recreation facilities. Town revitalisation is also a major theme for a number of the localities, with particular mention of Newman, Karratha, Geraldton, Port and South Hedland.

Presented below is a selection of projects that illustrate the opportunities. Each local authority can provide further details on the numerous service and infrastructure projects that are being planned for their communities.

PROJECT NAME

Finbar Apartments and Retail Precinct

PROPONENT/LEAD AGENT

Finbar Group Ltd/Finbar Karratha Pty Ltd

CONTACT DETAILS

Finbar Group Ltd/Finbar Karratha Pty Ltd
Commercial Transactions Advisor
John Bell
Telephone: +61 413 153 227
Email: john.bell@finbar.com.au
Website: <http://www.finbar.com.au>

REGION/LOCATION

Karratha, Pilbara Region

INVESTMENT OPPORTUNITY

Finbar is Western Australia's largest developer of apartments, primarily in Perth the capital of Western Australia. Finbar is financially sound and has a long history of working with joint venture partners. The development offers an attractive alternative lifestyle to a certain demographic group seeking security and city type living in the Pilbara. Attractive living options are helping to attract professionals to the Region. The proposed closure of Temporary Workers Accommodation in 2017 may lead to an increase in the demand for Pelago East apartments for operational fly in/fly out (FIFO) staff in the resources sector. The City of Karratha population forecast for 2015 is 27,010, and is forecast to grow to 41,049 by 2036. Individual packages of strata titled residential and commercial real estate in the Pelago East complex, each package worth approximately \$15 million.

One or more packages may be purchased. Sophisticated investors seeking investments in Australian real estate are substantially de-risked by having a large number of tenants in place with good returns and prospects for capital appreciation.

Sale of part of the Pelago East project will allow the developers to release working capital to help fund their next major development on the waterfront in Port Hedland. Finbar are in the process of developing their 3.2 ha Anchorage development in Port Hedland, opposite the site of the proposed new marina on the spoil bank. This development will eventually have more than 600 apartments developed in four stages. All plans and approval for stage 1 (108 apartments plus retail) are in place. This project is the subject of a separate request for an equity partner to share in the risks and rewards.

CAPITAL COST

Approx \$15 million investment packages.

TIMEFRAME

Short Term – immediate.

LEGISLATIVE REQUIREMENTS

Nil for Pelago. (Local planning for proposed new development in Port Hedland).

PROJECT NAME**Seacrest Estate**

PROPONENT/LEAD AGENT

Humfrey Land Developments and State Government

CONTACT

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Telephone: +61 8 9964 8028

Email: barryh@hld.com.au

Website: <http://www.hld.com.au/contact.php>

REGION/LOCATION

Geraldton, Mid West

INVESTMENT OPPORTUNITY

This is a Joint Venture with the State Government. There are 84 lots still to develop (construct) with 59 remaining to sell, near the city centre and not far from the beach. Investment will include:

- Purchase 38% of the total project via Joint Venture agreement. No Debt with \$1 million in Bank;
- Supporting Infrastructure; and
- Construction.

ECONOMIC BENEFITS

Affordable housing with a new school just completed, parks and gardens completed and a new shopping centre to commence construction.

It will create significant investment and job opportunities.

CAPITAL COST

Dependent on proponent.

TIMEFRAME

Short Term: Tendering and Selection.

Medium Term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs have all been completed. Engagement and consultation with the region's landholders and project stakeholders is necessary to complete the final stage.

Geraldton is an important service and logistics centre for regional mining, fishing, wheat, sheep and tourism industries. The City has excellent air links to Perth and other regional centres.



PROJECT NAME**Seafields Land Development Site**

PROPONENT/LEAD AGENT

Humfrey Land Developments

CONTACT

Humfrey Land Developments
Barry Humfrey
Telephone: +61 8 9964 8028
Email: barryh@hld.com.au
Website: <http://www.hld.com.au/contact.php>

REGION/LOCATION

Geraldton, Mid West

INVESTMENT OPPORTUNITY

The number of lots to develop is 170, which are just 8 km from the city centre and not far from the beach. Seafields has 170 lots and three existing houses. There are four separate titles (not subdivided) and another 17 lots and one medium density site (eight dwellings), which forms part of stage 2A. Each of the four lots have services to the boundary. All approvals are in place.

Investment will include:

- Land Acquisition;
- Supporting Infrastructure; and
- Construction.

ECONOMIC BENEFITS

This is a well-established affordable area only 8 kms north east of the Geraldton Central Business District (CBD). This area has been developed by Humfrey Land Developments over a 30 year period which has made it necessary for schools and a shopping centre to be constructed in the vicinity.

CAPITAL COST

Approximately \$11 million to complete all lots.

TIMEFRAME

Short Term: Tendering and Selection.

Medium Term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs have all been completed with the City of Greater Geraldton and traditional owners.

PROJECT NAME**Wavcrest Land Development Site**

PROPONENT/LEAD AGENT

Sutcliffe Road Joint Venture (with Humfrey Land Developments)

CONTACT

Humfrey Land Developments
Barry Humfrey
Telephone: +61 8 9964 8028
Email: barryh@hld.com.au
Website: <http://www.hld.com.au/contact.php>

REGION/LOCATION

City of Greater Geraldton

INVESTMENT OPPORTUNITY

The area of development is 385 ha near the city centre and not far from the beach. Master plan and zoning for the 388 ha approved in 2015.

Investment will include:

- Land acquisition;
- Supporting infrastructure including shopping centre and three tourism sites; and
- Construction.

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the economy:

- The land will create significant investment and job opportunities;
- The tourism land parcels will add significantly to the quality of marketable tourism in the City;
- Construction of facilities and supporting infrastructure; and
- Support to existing tourism products and services.

CAPITAL COST

Dependent on proponent and in the region of \$189 million.

TIMEFRAME

Short Term: Tendering and selection.

Medium Term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use has been completed with the City of Greater Geraldton and traditional owners.

PROJECT NAME**Flour Mill Development Site**

PROPONENT/LEAD AGENT

Humfrey Land Developments

CONTACT

Humfrey Land Developments
Barry Humfrey
Telephone: +61 8 9964 8028
Email: barryh@hld.com.au
Website: <http://www.hld.com.au/contact.php>

LOCATION/REGION

Geraldton, Mid West

INVESTMENT OPPORTUNITY

Area is classified as CBD. Nine lots remain. A total of 23 apartments can be constructed on the remaining nine lots. Lot 200 can be built to three storeys, the remainder are two storeys. The lots are adjacent to the Marina Beach. Land can be used for short stay or permanent dwellings.

Investment will include:

- Land acquisition; and
- Construction.

ECONOMIC BENEFITS

- It will create significant investment and job opportunities;
- It will add significantly to the quality of marketable tourism in the City; and
- Construction of facilities and supporting infrastructure.

CAPITAL COST

Dependent on proponent, in the region of \$2.1 million for land.

TIMEFRAME

Short term: Tendering and selection.

Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use has been completed. Engagement and consultation with the region's landholders and project stakeholders is necessary.

PROJECT NAME**Lot 314 Lazy Lands Initiative**

PROPONENT/LEAD AGENT

Shire of Ashburton

CONTACT DETAILS

Shire of Ashburton
Chief Executive Officer
Neil Hartley
Telephone: +61 8 9188 4457
Email: Neil.Hartley@ashburton.wa.gov.au
Website: <http://www.ashburton.wa.gov.au/contact/contact-us>

LOCATION/REGION

Onslow, Pilbara

INVESTMENT OPPORTUNITY

Serviced residential land – freehold. Deconstraining of Lot 314 for further subdivision after Council approval and as the market demands. Construction materials for services and road construction.

CAPITAL COST

Development: \$1,377,000 for deconstraining.
Subdivision Costs: \$100,000.

TIMEFRAME

Short to medium term: Design, construction and sale.

LEGISLATIVE REQUIREMENTS

Local planning approvals.



PROJECT NAME**Karratha Arts and Community Precinct**

PROPONENT/LEAD AGENT

City of Karratha

CONTACT DETAILS

City of Karratha
Director, Community Services
Andrew Ward
Telephone: +61 8 9186 8555
Email: andrew.ward@karratha.wa.gov.au

LOCATION/REGION

Karratha, Pilbara

INVESTMENT OPPORTUNITY

The purpose is to provide innovative, contemporary community facilities to commensurate with Karratha's future City of the North status and reflect community needs both now and into the future.

The facility scope includes:

- 450 seat theatre (performing arts);
- Entry foyer;
- Outdoor event space (amphitheatre);
- Staff administration office accommodation;
- Library (incorporating local history); and
- Roof top terrace.

CAPITAL COST

\$54 million.

TIMEFRAME

Short term – Centre design and planning.
Medium term – Build.

LEGISLATIVE REQUIREMENTS

Ongoing City of Karratha endorsement, State and Federal funding support.

PROJECT NAME**West End Arts and Culture Project**

PROPONENT/LEAD AGENT

West End Projects Australia trading as Archipelago Arts

CONTACT DETAILS

West End Projects Australia trading as Archipelago Arts.
Colette McEntee,
Telephone: +61 438 909 019
Email: colette@westendprojects.com.au

LOCATION/REGION

Pilbara (& other north west regions)

INVESTMENT OPPORTUNITY

Archipelago Arts is an established and highly respected organisation with roots firmly embedded in the North West. The business directors employ staff across all regions of the North West. The creative industries are an increasingly important component of the business sector and the community. Businesses involved in this sector are currently under-represented in the North West. Whilst many organisations and small businesses possess skills in their particular discipline, they often require development in general business operations. The proponent's brokers can work with and for these organisations and individuals to assist them in development and sustainability.

The project will secure major and immediate growth of the creative industries. Sustainability of the 'brokers' will be achieved through increased project activity and enhanced through the provision of ongoing employment and opportunities. As the 'brokers' will be based in major towns in the various regions of northern Western Australia there will be major opportunities to cross-pollinate ideas and skills through the network of the businesses. Once established, this could be replicated across Australia.

Clients are likely to include: local, state and federal government; not for profit and small business sectors within the creative industries; private enterprise; Aboriginal art centres; self-employed artists.

CAPITAL COST

\$5 million, capital required in order to set-up offices, salaries, recruitment, training, marketing costs for a three year period. Proponents would like to look at a partnership model where they team up with a larger organisation to deliver services into the region and access the resources that would be gained through this partnership. Would also consider an equity partnership model from an investor into the business. This can also include business expertise in an area where input can be made into the operations of the business in that area. Self-sustaining after five years.

TIMEFRAME

Short term: Recruit skeleton staff, establish local office, undertake relationship and network building, map and gap local arts organisations and funding streams, develop recruitment and marketing plan, identify suitably skilled professionals across Western Australia to provide training.

Medium term: Increase staffing levels, establish networks, engage local and external expertise, deliver short-term projects.

Long term: Self-sustaining funding and projects, maturing local arts individuals and organisations, major project delivery.

LEGISLATIVE REQUIREMENTS

Proponents responsible for legislative requirements.

The creative industries are an increasingly important component of the business sector and the community. Businesses involved in this sector are currently under-represented in the North West.

PROJECT NAME**Expand Sewage Treatment Plant**

PROPONENT/LEAD AGENT

Shire of East Pilbara

CONTACT DETAILS

Shire of East Pilbara
Chief Executive Officer
Allen Cooper
Telephone: +61 8 9175 8000
Email: ceo@eastpilbara.wa.gov.au
Website: <http://www.eastpilbara.wa.gov.au/about-us/contact-us>

LOCATION/REGION

Newman, Pilbara

INVESTMENT OPPORTUNITY

Critical community infrastructure.

CAPITAL COST

\$10 million.

TIMEFRAME

Short term – Design plan.
Medium term – Complete commission.

LEGISLATIVE REQUIREMENTS

Local government regulatory approvals required.

PROJECT NAME**Civic Centre Expansion**

PROPONENT/LEAD AGENT

Shire of East Pilbara

CONTACT DETAILS

Shire of East Pilbara
Chief Executive Officer
Allen Cooper
Telephone: +61 8 9175 8000
Email: ceo@eastpilbara.wa.gov.au
Website: <http://www.eastpilbara.wa.gov.au/about-us/contact-us>

LOCATION/REGION

Newman, Pilbara

INVESTMENT OPPORTUNITY

Add civic space to East Pilbara arts centre.
Cater for Martumili artists.

CAPITAL COST

\$6 million.

TIMEFRAME

Short term – Civic centre design.
Medium term – Build.

LEGISLATIVE REQUIREMENTS

Regulatory approvals required.

PROJECT NAME**Paraburdoo Community Hub**

PROPONENT/LEAD AGENT

Rio Tinto, Shire of Ashburton

CONTACT DETAILS

Shire of Ashburton
Chief Executive Officer
Neil Hartley
Telephone: +61 8 9188 4457
Email: Neil.Hartley@ashburton.wa.gov.au
Website: <http://www.ashburton.wa.gov.au/contact/contact-us>

REGION/LOCATION

Paraburdoo, Pilbara

INVESTMENT OPPORTUNITY

Repurpose and upgrade of community facilities as well as construction of a new multi-purpose centre, skate park, child care centre, 1190 m² multi-purpose centre, fit for purpose neighbourhood centre, refurbish indoor sports pavilion squash courts, modernise community hall and 185 m² club trailer and equipment storage building.

CAPITAL COST

Seeking technical development partner.

TIMEFRAME

Short term - skate park and child care centre.

LEGISLATIVE REQUIREMENTS

Regulatory approvals required.

PROJECT NAME**Tom Price Community/Youth/Day Care**

PROPONENT/LEAD AGENT

Rio Tinto, Shire of Ashburton

CONTACT DETAILS

Shire of Ashburton
Chief Executive Officer
Neil Hartley
Telephone: +61 8 9188 4457
Email Neil.Hartley@ashburton.wa.gov.au
Website: <http://www.ashburton.wa.gov.au/contact/contact-us>

REGION/LOCATION

Tom Price, Pilbara

INVESTMENT OPPORTUNITY

Upgrade of facilities.

CAPITAL COST

Capital - \$12 million.

TIMEFRAME

Short term - Construction.

LEGISLATIVE REQUIREMENTS

Regulatory approvals required.

PROJECT NAME**Three Springs Multipurpose Childcare Centre**

PROPONENT/LEAD AGENT

Shire of Three Springs and Three Springs Childcare Incorporated

CONTACT DETAILS

Shire of Three Springs and Three Springs Childcare Incorporated
Chief Executive Officer
Sylvia Yandle
Telephone: +61 8 9954 1001
Mobile: +61 407 981 659
Email: ceo@threesprings.wa.gov.au
Website: <http://www.threesprings.wa.gov.au/>

REGION/LOCATION

Three Springs, Mid West

INVESTMENT OPPORTUNITY

Construction, facilities, furnishings and educational resources.

CAPITAL COST

Capital - \$2.2 million.

TIMEFRAME

Short term – construction.

LEGISLATIVE REQUIREMENTS

Regulatory approvals required, land to be excised from the Three Springs Primary School.

PROJECT NAME**Carnarvon Airport Residential Project**

PROPONENT/LEAD AGENT

Shire of Carnarvon

CONTACT

Shire of Carnarvon
Chief Executive Officer
Ian D'Arcy
Telephone: +61 8 9941 0052
Mobile: +61 418 959 725
Email: ceo@carnarvon.wa.gov.au

REGION/LOCATION

Carnarvon, Gascoyne

INVESTMENT OPPORTUNITY

A mix of well-planned housing over the next 20 years to accommodate a range of household sizes. Design to meet environmental criteria. Retail and commercial opportunities exist.

CAPITAL COST

To be confirmed.

TIMEFRAME

Short term to medium term (one to five years).

LEGISLATIVE REQUIREMENTS

Proponents are required to negotiate the Land Tenure Pathway if applicable, negotiate with the Shire, water utilities and power suppliers.



Transport Infrastructure Investment Opportunities

02

ASSETS

The regions are well served by interconnected regional airlines, links to Perth the capital city of Western Australia, and other main cities in Australia such as Sydney and Melbourne. There are international flight links through Perth to worldwide destinations. Darwin has flight connections with Singapore and Kuala Lumpur. The standard of main roads that connect the regions and their centres is of a high quality. The Great Northern Highway connects Perth and the south of Western Australia to the four regions and then continues on to Darwin in the Northern Territory. Major towns have adequate power, water and sewage infrastructure. The standard of service provision is high.

The ports of the regions are managed and serviced to high standards and are regulated by regional port authorities. The major ports of Wyndham, Derby, Broome, Port Hedland, Cape Lambert, Dampier, Onslow and Geraldton are amongst the largest of their type in the world. Further medium and large-scale port development is anticipated. There are a large number of smaller and medium size ports in the regions exporting a wide range of commodities.

Exports of iron ore through the regions' ports comprise the highest share of the world's global iron ore trade. LNG exports from the regions are increasing and in 2016-17 the Pilbara region will be the world's largest single regional exporter.

Table 3: Main Ports

Region	Port Name
Kimberley	Wyndham
	Derby
	Broome
Pilbara	Port Hedland
	Cape Lambert
	Dampier
	Onslow
Mid West	Geraldton

The scale of operations of the major ports in the region is indicated by the following:

- During 2014-15, the Kimberley Ports Authority (KPA) achieved a total port throughput of 508,245 tonnes of high value cargoes involving 1,126 vessel visits;
- The Port of Geraldton achieved a record throughput during the 2014-15 financial year, of 16.9 million tonnes with a diversity of cargo types handled;
- The Pilbara Ports Authority (PPA) achieved a record annual throughput of 620 million tonnes, with more than 24,000 vessel movements across its ports;
- The Port of Port Hedland in the Pilbara is the world's largest bulk export port;
- Port of Cape Lambert operated by Rio Tinto has a capacity to export 365 million tonnes of iron ore per annum; and
- Export capacity of LNG from Barrow Island, off Onslow and from the port is significant (combined capacity of Gorgon and Wheatstone is the largest LNG operation in the world).

All main centres have well-appointed airports that have recently been upgraded. Apart from the main airports there are a large number of small and medium size airports in the regions, servicing towns such as Wyndham and Derby in the Kimberley, Paraburdoo and Onslow in the Pilbara, Carnarvon in the Gascoyne, and Meekatharra, Mount Magnet and Wiluna in the Mid West.

Table 4: Regional Infrastructure: Airports

Region	Airport	Passenger numbers (2015)
Kimberley	Kununurra	87,000
	Broome	410,000
Pilbara	Port Hedland	450,000
	Karratha	750,000
	Newman	432,000
Gascoyne	Learmonth (Exmouth)	90,500
Mid West	Geraldton	130,000
Total		2,349,500

OPPORTUNITIES

Population and business expansion will lead to increased service needs of all types, including port capacity, expansion and improvement of airports and additional and upgraded road links in all the regions. In time there will be further exploitation of the vast reserves of minerals and petroleum. Several offshore LNG projects are in the design stage or are awaiting investment decisions. Onshore deposits of natural gas in the Canning Basin are amongst the largest in the world. Tourism, aquaculture and agriculture are all set for expansion.

Private investors can take advantage of support from recent Federal Government initiatives. The Federal Government has committed nearly \$5 billion to transport infrastructure in northern Australia.

A Northern Australia Infrastructure Facility (NAIF) is in the final stages of preparation. It is designed to offer long term concessional loans to investors in infrastructure on favourable terms, including favourable interest. The Facility will catalyse further private investment in northern Australia, either as stand-alone investors or in partnership with government agencies. The NAIF financing component for proposed projects will be for amounts of \$50 million or more and a project could include multiple pieces of infrastructure that are aggregated into a single project.

Private sector investment opportunities in the entire range of infrastructure services are notable. Some main ports are already operated and maintained by the resources sector, and others are planned or under

construction. For example, the Port of Dampier is currently operated under licence by a private sector entity.

The Town of Port Hedland has recently sold a 50 year lease on the town's international airport for \$205 million to AMP Capital and Infrastructure Capital Group with an upfront payment of \$165 million and will invest another \$40 million to redevelop the airport during the next five years.

The development of ports, air links and roads in the four regions ties in with the State Government plan for improving inter-regional transport links.

A focus of investments will be into common user infrastructure that acts as a catalyst for development and improves competitive advantages of regions. Logistics hubs and integrated networks of infrastructure are required to generate new industry opportunities.

As shown left, the PortLink concept seeks to establish integrated infrastructure corridors linking major regional and state ports including Port Hedland, Geraldton/Oakajee, Esperance and Fremantle. It also provides the basis for connecting the Mid West with the eastern states via a standard gauge rail through Kalgoorlie.

Until the proposed deep-water port at Oakajee is developed, the ability to export products via the Geraldton Port will be essential for unlocking some of the Mid West mineral deposits. In addition the development of new or other existing industries may also be dependent upon importing/exporting through a nearby port. Increasing the capacity of the Geraldton Port is therefore likely to be critical for the region's economic growth and development in the short to medium term.

Assuming the development of a deep-water port at Oakajee goes ahead, the Western Australian Regional Transport Network Plan projects an eightfold increase in export flows from the Mid West (Geraldton and proposed Oakajee ports) between 2016 and 2030, by far the largest projected percentage increase of any of Western Australia's ports. Decisions to upgrade the Geraldton Port will be undertaken on a commercial basis by the Mid West Ports Authority, its clients and government at a time that best meets their corporate and commercial objectives.

Figure 1: PortLink Inland Freight Corridor Concept



Source: Mid West Regional Investment Blueprint: Mid West Development Commission; September 2015

The rail network in the Mid West region is owned by the Western Australia State Government and is managed and operated on a long-term lease by a private company, Brookfield Rail, until 2049. With the emergence of the Mid West as a prominent iron ore hub, there has been a significant increase in demand for capacity on the rail network to transport product to export markets through the Geraldton Port.

Other opportunities in the Mid West and the Pilbara include:

- Completion of new road and railway corridors connecting the Mid West region's southern, eastern and northern mining provinces to Geraldton/Oakajee;
- Connection of the Yilgarn area, Mid West and Pilbara regions to ports in Geraldton/Oakajee, Esperance, Port Hedland and Fremantle as part of the PortLink Inland Freight Corridor;
- Establishment of the Oakajee Industrial Estate;
- Extension of the 330 kilovolts transmission line from Three Springs to Geraldton/Oakajee;
- Establishment of a freight and logistics hub at Oakajee;
- Servicing the State's strategic defence force presence in the north west; and
- Development of telecommunications and digital networks.

The Gascoyne lacks a multi-purpose port facility from which to export the region's agricultural production. Instead, livestock and horticulture products are transported primarily to other regions for access to international markets. The main ports for livestock transportation from the rangelands are Fremantle, Port Hedland, Broome, Geraldton and Wyndham. Salt is a major export product for the Gascoyne, representing nearly half of the State's total salt production. Major salt operators maintain private port facilities for direct transport of product to markets.



A selection of transport related project opportunities are presented below:

PROJECT NAME**Newman Airport Transport Hub**

PROPONENT/LEAD AGENT

Shire of East Pilbara

CONTACT DETAILS

Shire of East Pilbara
Chief Executive Officer
Allen Cooper
Telephone: +61 8 9175 8000
Email: ceo@eastpilbara.wa.gov.au
Website: <http://www.eastpilbara.wa.gov.au/about-us/contact-us>

REGION/LOCATION

Newman, Pilbara

INVESTMENT OPPORTUNITY

Large lot creation.

CAPITAL COST

\$10 million.

TIMEFRAME

Short term – Design plan.
Medium term – Complete commission.

LEGISLATIVE REQUIREMENTS

Regulatory approvals required.

PROJECT NAME**Tanami Road – Halls Creek to Alice Springs**

PROPONENT/LEAD AGENT

Shire of Halls Creek

CONTACT DETAILS

Shire of Halls Creek
Economic Development Manager
Matt Hobson
Telephone: +61 8 9168 6007
Mobile: +61 408 763 982
Email: edm@hcshire.wa.gov.au
Website: www.halls creek.wa.gov.au

REGION/LOCATION

Alice Springs, Northern Territory to Halls Creek, Kimberley

INVESTMENT OPPORTUNITY

Transport corridors that open opportunities for markets to move produce. Diversification of a wide variety of industries.

CAPITAL COST

\$625 million.

TIMEFRAME

Short term – survey.
Medium term – engineering and construction.

LEGISLATIVE REQUIREMENTS

Regulatory approvals required.



PROJECT NAME**Exmouth Multi-Purpose Deep Water Wharf**

PROPONENT/LEAD AGENT

Shire of Exmouth

CONTACT DETAILS

Shire of Exmouth in partnership with Western Australia
Department of Transport
Chief Executive Officer
Bill Price
Telephone: +61 8 9949 3004
Email: ceo@exmouth.wa.gov.au
Website: <http://www.exmouth.wa.gov.au/contact-us.aspx>

REGION/LOCATION

Exmouth, Gascoyne

INVESTMENT OPPORTUNITY

The modern Exmouth Marina is used by recreational users and services tourism operators, fishing fleets, and offshore oil and gas industries. Cruise ship berthing facilities are not available in the Exmouth Marina and therefore cruise passengers are currently tendered to shore, this is a lengthy process, unreliable and results in loss of revenue opportunities.

Construction of a wharf to service cruise ships and also the mining and petroleum industries. The Shire of Exmouth in partnership with interested stakeholders, including Exmouth Limestone Pty Ltd and the Gascoyne Development Commission (GDC), have identified opportunities for the town to capitalise on and benefit from current and future developments in the tourism, defence, resource and agricultural sectors.

Exmouth Limestone Pty Ltd own 18 ha of land 8 km south of the Exmouth town site for which they have approvals for a smaller wharf development, for the specific purpose of exporting limestone. Working with the Shire, Exmouth Limestone Pty Ltd, has expanded their vision to establish a larger and deeper wharf facility to service a variety of industries. Recognising the potential economic and social benefits, the Shire of Exmouth has a strategic aim for a multi-purpose deep water wharf to be located in the Exmouth Gulf. This development will service a range of larger shipping activities such as cruise ships, naval and resource sector vessels and provide a trading opportunity for the agricultural industries both within and external to the Gascoyne region.

- Land Acquisition;
- Supporting infrastructure; and
- Construction.

CAPITAL COSTS

\$45 million.

TIMEFRAME

Short to medium term: (one to five years).

LEGISLATIVE REQUIREMENTS

Proponents will need to negotiate legislative requirements with the Shire of Exmouth and other stakeholders.

PROJECT NAME**Batavia Coast Marina Stage 2**

PROPONENT/LEAD AGENT

LandCorp

CONTACT DETAILS

LandCorp Sales

Email: sales@landcorp.com.au

Telephone: +61 1300 730 435

Website: www.landcorp.com.au

REGION/LOCATION

Geraldton, Mid West

INVESTMENT OPPORTUNITY

Seeking a technical partner. Remediated site to allow the development of a new precinct within the CBD and to connect the current Marina with the city centre. The project seeks to unlock developable land and public amenity, water harvesting technologies and public infrastructure supported by further construction options. This development will attract new business to the city and create local jobs. Further, it will help to ensure Geraldton is a destination rather than a place that people pass through. This will help in getting visitors to explore the Mid West.

TIMEFRAME

Short term - Design and development of lots.

Medium term - Development of lots and public amenity.

Long term - Development of lots.

CAPITAL COST

LandCorp equity project: \$20 million.

LEGISLATIVE REQUIREMENTS

Regulatory approvals required.



PROJECT NAME**Karratha – Tom Price Road**

PROPONENT/LEAD AGENT

Shire of Ashburton

CONTACT DETAILS

Shire of Ashburton

Chief Executive Officer

Neil Hartley

Telephone: +61 8 9188 4457

Email: Neil.Hartley@ashburton.wa.gov.au

Website: <http://www.ashburton.wa.gov.au/contact/contact-us>

REGION/LOCATION

Pilbara

INVESTMENT OPPORTUNITY

Design and construct Karratha-Tom Price Road. This tourism corridor currently being underutilised. This development will create access to the Port of Dampier, enhancing export opportunities. Alternate transportation of mining goods and services, connectivity between communities.

CAPITAL COST

\$250 million.

TIMEFRAME

Short term – Stage 1.

Medium term – Stages 2 and 3.

LEGISLATIVE REQUIREMENTS

Regulatory approvals required.

PROJECT NAME**Lumsden Point**

PROPONENT/LEAD AGENT

Pilbara Ports Authority

CONTACT DETAILS

Port Hedland office

The Esplanade, Port Hedland

Telephone: +61 8 9173 9000

Corporate office

Level 3, 16 Parliament Place, West Perth

Telephone: +61 8 6217 7112

REGION/LOCATION

Port Hedland, Pilbara

INVESTMENT OPPORTUNITY

LUMSDEN POINT:

To address growth in general cargo and containerised trade, the emergence of new port services and to overcome congestion of public berths Port Hedland Port 1, 2 and 3, planning is underway to develop berthing infrastructure at Lumsden Point. Located in close proximity to the deep water dredged harbour basin, Lumsden Point will capitalise on the 140 ha of land reclaimed and Great Northern Highway realignment. Lumsden Point is located to the north of Wedgefield Industrial Estate and is ideally suited to future general cargo trade. This will also

accommodate future Port support trades and services. First stage development will complement Port Hedland Ports berths 1, 2 and 3 and provide berth capable of handling Handimax vessels for ammonium nitrate, cement, mineral concentrates, livestock and general cargo shipping industries. Lumsden Point can also accommodate stockyards to facilitate livestock exports required for the projected growth of the Pilbara beef industry. Lumsden Point developments align closely with the Town of Port Hedland and LandCorp's vision for the Boodarie Industrial Estate and Wedgefield Industrial Estate to become an international freight hub closely linked to the nearby international airport. Lumsden Point also has the potential to be the site for a proposed common user facility due to deepwater port access, the ports development plans for the site which include some 1.2 km of land backed wharf, significant land and excellent logistical access.

CAPITAL COSTS

Up to \$400 million for complete development including dredging.

TIMEFRAME

Medium term.

LEGISLATIVE REQUIREMENTS

State Government and Pilbara Port Authority Board approval to proceed with the development is required.





Minerals and Energy Investment Opportunities

03

MINING AND PETROLEUM

Western Australia is the most diversified minerals and energy province in the world (State of Mind, 2015). Much of the resources and activity is concentrated in the Pilbara.

The output across the four regions delivered more than \$80 billion in sales in 2014-15, accounting for more than three quarters of the State's output in this sector.

Table 5: Output of the Regions from Mining & Petroleum

Region	\$Billion	Percentage of State Total
Kimberley	0.8	0.76%
Pilbara	77.6	73.9%
Gascoyne	0.132	0.12%
Mid West	2.8	2.6%
Total	81.33	77%

Source: Department of Mines and Petroleum with further estimates by the Department of Regional Development and Lands⁴

The very large natural endowment and contribution of the sector to the State is shown by:

- Minerals and petroleum accounted for 91% (\$114.1 billion) of the State's merchandise exports in 2014, approximately 60% of national exports;
- From 2013-14, Western Australia was home to 513 mineral projects with 1,050 operating mine sites, producing more than 50 different commodities, more than any other State or Territory in Australia;
- Western Australia produces over 40 kinds of minerals, two-thirds of Australia's mineral wealth; and
- Western Australia has the largest single resource development in Australia's history, and one of the largest natural gas projects in the world with Chevron's \$63 billion Gorgon Project, a 15.6 million tonne per annum LNG plant on Barrow Island, off the Pilbara coast.

Western Australia leads the nation with \$171 billion worth of resource projects under construction or committed as of March 2015. To put this in perspective,

as of April 2015 Australia has 39 resources projects at the committed stage with a combined value of \$225 billion. Projects in the north west regions of Western Australia, account for more than two thirds of this value.

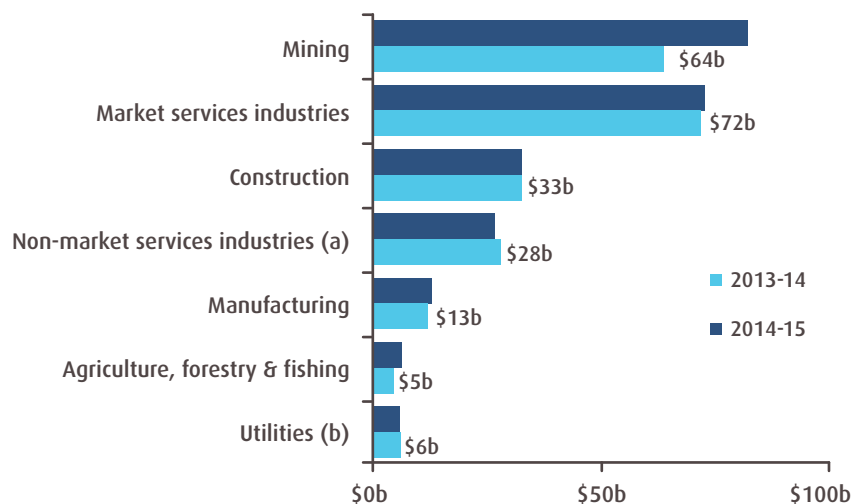
The Western Australia mining and petroleum industry is characterised by the involvement of private corporations with an important regulatory role occupied by the Federal and State Governments, similar to North America and Western Europe. The sector is dominated by a few multinational companies such as BHP Billiton, Rio Tinto, Xstrata, Shell, Chevron and Woodside Petroleum. However, mining and oil and gas onshore and offshore developments in Western Australia are supported by a diverse services sector.

Mining made the largest industry contribution to Gross State Product (GSP) growth in 2014-15, with real value added rising 10%, and accounting for 25.6% of GSP in 2014-15.

The State has roughly 76 trillion cubic feet of proven natural gas reserves and an estimated 157 trillion cubic feet of shale gas reserves, with 10.2 billion barrels of associated oil. Western Australia accounts for 85% of Australia's and 9% of the world's LNG exports, underpinning the forecast for Australia to overtake Qatar as the largest LNG exporter by 2016.

In addition to the ongoing North West Shelf and Woodside's Pluto projects, there are a large number of recently completed major petroleum projects which are ramping up to full operational capacity, which again are all in the north west. This includes Chevron's 15.6 million tonnes per annum Gorgon Project off the State's north west coast, which is the largest single resource development in Australia's history and one of the largest natural gas projects in the world. Also, the world's first floating LNG facility will be positioned off the Kimberley coast in 2017.

Figure 2: Western Australia Industry sectors nominal value added



Source: ABS State Accounts

⁴ http://www.drd.wa.gov.au/Publications/Documents/Regional_Snapshot_Part_5_Regional_Economies.pdf

On the mining side, in addition to Rio Tinto, BHP Billiton and Fortescue Metals Group (FMG)'s ongoing projects, the recently completed major mining projects which are ramping up to full operational capacity are all in the Pilbara: CITIC Pacific's Sino Iron Mine & Processing Plant at Cape Preston, 100 km from Karratha, FMG/Baosteel/Formosa partnership at Iron Bridge, Rio Tinto's Pilbara 360 Iron Ore Expansion (Port and Rail) and Hancock Prospecting's Roy Hill Iron Ore Mine, which had its first shipment in December 2015.

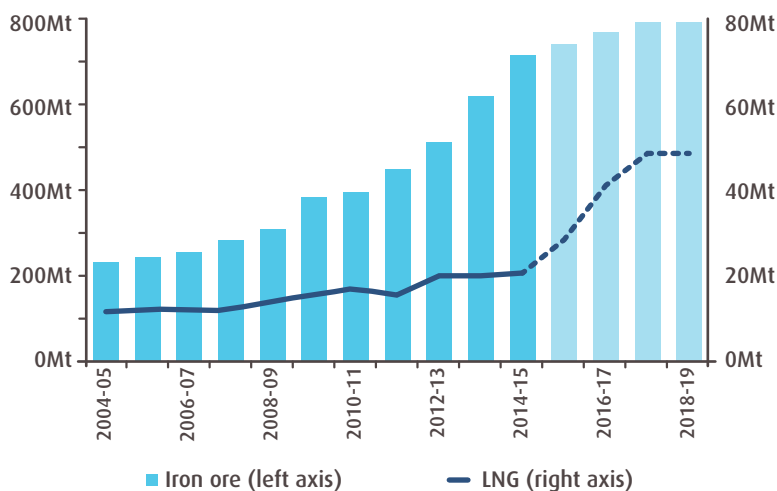
With current levels of production, Western Australia's iron ore sales are forecast to rise by an annual average of 2.7% to 799 million tonnes between 2014-15 and 2018-19; and LNG sales are expected to grow from 20.4 million tonnes in 2014-15 to almost 50 million tonnes by 2017-18, if the Gorgon, Wheatstone and Prelude projects are operating at full capacity.

Investment opportunities exist in various sectors, including subsea and marine, unconventional gas, training and skills, operations and maintenance, engineering, design and fabrication, logistics and transport.

The mining and petroleum sector supports the Royalties for Regions programme, which is the policy and funding vehicle for the State's long-term commitment to developing Western Australia's regional areas into strong and vibrant regional communities that are desirable places to live, work and invest. This programme allocates 25% of the mining and onshore petroleum royalties forecast in the annual State budget to accrue in the following financial year. Since December 2008, Royalties for Regions has invested \$4.2 billion to more than 3,500 projects across regional Western Australia. A further \$1 billion has been committed through the programme since 2014-15 for each year over the next four years, into agriculture, regional revitalisation, health, community services, education, sport, transport and tourism. Over 2008-18 the programme will deliver a total of \$11.5 billion in regional investments.

The Pilbara economy is often referred to as the 'economic heart' of Western Australia. The development of the sector, notably iron ore, in the Pilbara has been the driver for much of the Western Australia's economic growth in the last two decades.

Figure 3: Iron ore and LNG sales outlook (volume)



Source: Western Australia Department of Mines and Petroleum, Minerals and Petroleum Summary Tables; Western Australia 2015-16 State Budget; and Western Australia Department of State Development

The Carnarvon Basin off the north west coast is the State's largest oil and gas field, which has been developed following discovery of the north west shelf gas fields in the 1970s. The North West Shelf Venture has invested \$27 billion in facilities that make up Australia's largest oil and gas resource development. Australia's biggest resource project is also in the region, the Gorgon Joint Venture LNG project, which is being developed at an estimated cost of \$63 billion with a further \$19.6 billion of offshore projects committed for development.⁵ The Pilbara also has ongoing mining operations of nickel, gold, copper and manganese deposits, as well as significant uranium, most notably Kintyre, which is the second largest known deposit in Western Australia.

In the Kimberley, the mining sector is the most significant contributor to the region's economy (\$0.8 billion in 2014-15). The region also accounts for all of Western Australia's diamond production and produces around 90% of the world's pink diamonds. It has vast undeveloped resources including rare earths, bauxite, coal, gold, iron ore and natural gas.

The resources sector is the Mid West's single largest contributor to GSP (\$2.8 billion in 2014-15). Formerly gold was the region's most valuable product. Iron

ore now has a greater value, however, recent commodity prices are proving challenging to mid-tier producers. The region will see uranium production by Toro Energy which is set for approval in 2016, as well as an emerging shale and light gas sector, which is currently in the proof of concept stage. The region also has a broad range of smaller, specialist ancillary companies servicing the sector, including a number of specialist marine companies for oil and gas operations in the north. Geraldton is an important regional centre for servicing these northern mining and petroleum projects, maintaining a FIFO workforce to the Pilbara with its significant regional airport.

Mining in the Gascoyne is less significant than in the other regions, however, it is becoming increasingly valuable (\$132.6 million in 2014-15). Salt production and private ports at Useless Loop in the Shire of Shark Bay and at Dampier Salt's Lake MacLeod near Cape Cuvier, north of Carnarvon, are the main operations. At full capacity, (5.2 million tonnes per annum) these operations account for nearly half of Western Australia's total salt production. The salt is largely exported to Asia for food and chemical production. Operations at Lake MacLeod are set to expand. The Exmouth sub-basin offshore from North West Cape has significant oil and gas production.

⁵ <http://www.cmewa.com/cme-and-our-members/what-we-do/regions>
⁶ <http://www.gdc.wa.gov.au/industry-profiles/mining/> <http://www.gdc.wa.gov.au/industry-profiles/mining/>
⁷ Deloitte Access Economics, 2015-2025 Western Australian Resources Sector Outlook
⁸ http://www.climateinstitute.org.au/verve/_resources/cleanenergyjobssnapshot_westernaustralia.pdf
⁹ Clean Energy Australia Report 2014, Clean Energy Council
¹⁰ <http://www.climatecouncil.org.au/uploads/ee2523dc632c9b01df11ecc6e3dd2184.pdf>
¹¹ http://www.drd.wa.gov.au/Publications/Documents/A_region_in_Profile_2014_Gascoyne.pdf

Developments include exploration of the hydrocarbon potential and oil production in the Merlinleigh and Byro Sub-basins in the Carnarvon Basin, which are still to be fully realised.⁶ The development of the Coburn Heavy Mineral Sands Project south of Shark Bay will assist in diversifying the region's mining sector and is expected to create significant employment. The region also has inland uranium, gold, diamonds and other mineral deposits, which offer expansion and diversification opportunities.

Shifts in the sector reflect the changing status of current major projects, which are almost all now moving from construction to operations and maintenance. Forecasts by the Chamber of Minerals and Energy together with Deloitte Access Economics to 2020, expect the workforce in the Pilbara to decrease by 14,300 workers, comprising a reduction of 17,900 construction workers and increase of 3,600 operational workers; while the workforce in the Kimberley is expected to increase by 2,900, and the Mid West to remain relatively constant.⁷

RENEWABLE ENERGY

Renewable energy provided 13.5% of Australia's electricity in 2014, enough to power the equivalent of 4.5 million average homes.⁸ Western Australia, as with the rest of Australia, currently depends on coal, gas and diesel to supply most of its electricity needs. However, the State has significant and largely untapped low pollution energy sources, including solar, wind, wave and biomass and other renewable energy resources.

Costs for the installation of most renewable energy technologies have come down significantly, and supporting policies have continued to spread throughout the world. Australia does not lead on renewable energy policy and incentives, however, there are significant projects that reflect the global appetite for clean energy, which increased by 16% in 2013 to US\$310 billion.⁹

The State had 936 megawatts of installed renewable energy capacity in 2013, with 642 megawatts installed since 2001.¹⁰ Wind and solar make up the majority of the State's renewable energy opportunities. Solar photovoltaic is one of the fastest-growing, proven renewable energy technologies and costs are falling.

As documented in the Regional Investment Blueprint the Gascoyne and the Pilbara has an opportunity to become a leader in the utilisation of renewable energy, with vast areas of land, high annual solar coverage and low alternative fuel costs for the production of electricity. Wind generation projects along the region's coastline near Denham and Coral Bay service local communities and a solar farm in Carnarvon is providing additional power options. Geothermal acreage in the region has also been released. Other opportunities in the Gascoyne and the Pilbara include further wind and solar farm development using photo voltaic or solar concentrators.¹¹

The Mid West region contributes 30% of the State's renewable energy and

is highly suitable for solar, wind, wave, geothermal and biomass energy projects and related technologies. Wind farms include the Walkaway Wind Farm 20 km south of Geraldton, the 55 megawatts Mumbida Wind Farm, and the 10 megawatts Greenough River Solar Farm detailed below which has potential for expansion to 40 megawatts. Other proposed solar generation initiatives noted in the Regional Investment Blueprint include the 50 megawatts Chapman Solar Farm and 1.5 megawatts North Midlands solar thermal project.

The Kimberley has a wide range of opportunities for all forms of renewable energy including biofuels, biomass, and biogas and extensive, high quality resources in solar and tidal, and potentially some limited wind generation.

There are a number of renewable energy projects worth noting in more detail, which attest to the State's natural assets to support renewable energy generation and investment in infrastructure, and provide a reference for investors. The Greenough River Solar Farm in the Mid West is a 10 megawatts photovoltaic power station across 80 ha, the first utility-scale solar farm in Australia at the time of its construction in 2012. This is a collaboration between the State's energy utility Synergy and GE Energy Financial Services. The energy generated by the solar farm is purchased by the Western Australia Water Corporation to help offset the energy requirements of the Southern Seawater Desalination Plant, in the south west. It will displace 20,000 tonnes per annum of greenhouse gas emissions, which is the equivalent of taking 3,000 cars off the road.

Table 6: Western Australia – Key Renewable Statistics (measure)

Statistic	Total (million tonnes)	Percentage (%)
Emissions	75.9 million tonnes carbon dioxide equivalent (CO ₂ e)	14% of Australian total
Per capita emissions	31.23 million tonnes CO ₂ e per person	
New large-scale renewable energy capacity since 2001 (July 2014)	642 megawatts	13% of Australian total
Installed renewable energy capacity (December 2013)	936 megawatts	6% of Australian total
Installed wind capacity (December 2013)	491 megawatts	
Installed solar PV capacity (December 2013)	398 megawatts	
Dwellings with solar PV		18.4%
Electricity generation from renewables (December 2013)	2075 gigawatt hour	11% of total generation for state/territory

Sources: ABS 2012; Australian PV Institute 2014; Clean Energy Council 2014a, b and c; Commonwealth of Australia 2014; Department of Environment 2014

Finally, Western Australia is also home to the world's first, and Australia's only marine energy technology, with the commencement of operations of Carnegie Wave Energy in 2014. The project is world leading in that it is the first project to use the energy of waves to produce both electricity and desalinated water, as well as the first to link several wave generating units together. It provides a model for remote regional towns.¹²

Energy consumption in Western Australia has doubled in the past 20 years. With the State's population set to increase from 2.2 million to 2.9 million by 2030, in terms of energy security the State's energy mix will need to include renewables alongside fossil fuels.¹³ Also, the State's energy-intensive sectors of mining, petroleum and manufacturing will continue to impact on growth in total energy demand. Particularly the demand for electricity to support resource based projects in the North West and Mid West will drive further investment in downstream energy infrastructure.

The Federal Government's Australian Renewable Energy Agency (ARENA) was established in July 2012 to improve the competitiveness of renewable energy technologies, make renewable energy solutions more affordable and increase the amount of renewable energy used in Australia. It aims to provide competitive energy solutions up to 2030-40. It provides significant grant funding for renewable energy investments and has funded key projects in Western Australia.

Consulting firm Ernst and Young reported in 2014 that the scale and pace of renewable energy deployment across the mining sector is slower than the business case warrants, indicating the economic impetus to scale up investment in renewable energy technology in the resources sector.¹⁴ The DeGrussa Solar Power Project outside of Meekatharra in the Mid West will inspire such investments. As of July 2015, a 10.6 megawatts solar power station is being constructed at the DeGrussa Copper-Gold Mine, wholly owned by Western Australia mining company Sandfire Resources and to be fully operational in 2016. The project will be the largest integrated off-grid solar and battery storage facility in Australia, and is expected to become a world-leading reference site for the use of renewable energy in the mining industry.

DeGrussa is being developed by an international consortium of investors in partnership with Sandfire with a \$40 million investment. It is expected to achieve savings in the consumption

of diesel fuel and deliver a significant environmental benefit for DeGrussa, reducing its CO₂ emissions by an estimated 12,000 tonnes per annum.

Remote industries in Australia currently rely on 1.2 gigawatts of power from diesel fuel that is prone to price volatility and supply interruptions. Renewables offer a reliable alternative to trucked-in diesel in off-grid applications. However, early-mover costs and the small number of reference projects globally mean that renewable energy mining projects are relatively rare.¹⁵ The project therefore aims to increase knowledge and confidence in the use of renewable energy to power off-grid mine sites.

There are a number of State initiatives to assist Western Australia households with the cost of switching to renewable energy systems to generate electricity or to heat water. While Western Australia does not have a state-based greenhouse gas emissions reduction target, in terms of helping to drive commercial investment in renewable energy, opportunities include:

- Stable investment environment in the north west regions for renewable energy and energy efficiency initiatives;
- Remote energy systems (decentralised generation) that operate largely in isolation from other energy networks;
- Energy efficiency improvements;
- Wind and solar projects;
- Geothermal and biofuel projects;
- Marine wave projects; and
- World-leading examples of renewable energy in the mining industry (see DeGrussa Solar Project above).

INNOVATION TECHNOLOGY

New disruptive technologies are having a significant impact on the industry and providing opportunities for investment along the supply chain for operations and maintenance companies. Investments in automation of knowledge work and autonomous vehicles, the Internet of Things (IoT) and data analytics, advanced robotics, energy storage, advanced materials and advanced oil and gas exploration and recovery technologies are enabling an industry-wide shift from construction to operations and maintenance as major expansion projects reach completion and transition to an operational phase, by providing predictive maintenance capability and optimisation of assets and asset life, and important improvements in safety and productivity at lower cost.

Rio Tinto was the first operator to develop a platform for automating its operations. It launched its Mine of the Future programme in 2008 and has invested \$7.2 billion in autonomous technologies towards a fully autonomous mine.¹⁶ It is supported by a centralised Remote Operations Centre (ROC) for remotely managing operations, an Autonomous Haulage System (AHS) with fleets of driverless trucks, autonomous train operations and autonomous drilling.¹⁷ As of October 2015 in a world first, RioTinto's Yandicoogina and Nammuldi mine sites in the Pilbara are operating with only driverless trucks, remotely controlled from Perth. Rio Tinto currently has 69 driverless trucks across three sites, which is expected to grow to 150 trucks in the next three years, which is expected to provide a cost saving of \$200 million per annum in maintenance costs by using predictive analytics and real-time data to enhance maintenance planning systems.¹⁸ The other two major iron ore producers, BHP Billiton and FMG have also introduced the technology to their operations, with plans for expansion.

The use of drones, or Unmanned Aerial Vehicles (UAV) technology has increased significantly in the last two years, and are also becoming part of an autonomous and remotely controlled technology environment. They can venture into areas where people cannot, and can work while equipment or a plant is still operating, saving time and cost in shut downs avoided.¹⁹ Rio Tinto and BHP Billiton use UAVs to survey and inspect mine pits, mineral stockpiles, and to monitor operations, and FMG has trialled them.²⁰ The benefits are also applicable to oil and gas operations. Woodside is also investing heavily in similar technology, to dramatically cut their maintenance costs.

¹² http://carnegiwave.com/wp-content/uploads/2015/10/151029_ABC-Online_World-first-wave-power-microgrid-to-be-trialled-in-WA.pdf

¹³ <http://www.futuredirections.org.au/files/HiresEnergyBookletforWebsite.pdf>

¹⁴ EY Global Cleantech Centre, Mining: The growing role of renewable energy, 2014

¹⁵ <http://arena.gov.au/project/degrussa-solar-project/>

¹⁶ <http://www.itnews.com.au/news/rio-tinto-it-investment-unlocks-cost-productivity-gains-408851>

¹⁷ <http://www.austmine.com.au/News/articleType/ArticleView/articleId/2298/Rio-Tintos-Mine-of-the-Future-Interview-with-Andrew-Harding#sthash.kH8seleZ.dpuf>

¹⁸ <http://m2m.riotinto.com/issue/1/article/let-ballet-begin>

¹⁹ David Eyre, Remotely Piloted Aircraft (RPA)/Unmanned Aerial Vehicles (UAVs)/'drones' in Western Australia, Aviation WA, 2 September 2015 <http://www.aviationwa.org.au/2015/09/02/remotely-piloted-aircraft-rpa-unmanned-aerial-vehicles-uavs-drones-in-western-australia/>

²⁰ Tyne McConnon and Kathryn Dis, Drones take flight at mining sites across Western Australia to improve safety and efficiency, ABC Rural, 1 September 2015 <http://www.abc.net.au/news/2015-09-02/drones-take-flight-at-mining-sites-across-wa/6743394>

A selection of mining and renewable energy related project opportunities are presented below:

PROGRAMME NAME**Rare Earths**

PROPONENT/LEAD AGENT

Northern Minerals

CONTACT DETAILS

Northern Minerals
Linda Reddi
Telephone: +61 8 9481 2344
Mobile: +61 401 566 998
Email: lreddi@northernminerals.com.au
Website: <http://northernminerals.com.au/>

LOCATION/REGION

Kimberley

FUTURE INVESTMENT OPPORTUNITY

Heavy rare earths which have clean energy applications.

CAPITAL COSTS

Approx. \$329 million.

TIMEFRAME

Three to five years.

LEGISLATIVE REQUIREMENTS

Normal industry and environmental approvals.



PROGRAMME NAME**Magnesium Material Recovery**

PROPONENT/LEAD AGENT

Ecomag Pty Ltd

CONTACT DETAILS

Ecomag Pty Ltd
Managing Director
Tony Crimmins
Mobile: +61 414 997 968
Email: tony@ecomagnesium.com

LOCATION/REGION

Port Hedland, Pilbara

FUTURE INVESTMENT OPPORTUNITY

Magnesium recovery from Salt production waste streams using novel technology. Export of Magnesia (MgO) and Hydrated Magnesium Carbonate (HMC) product. Development of new pure Magnesium material in mass production. Contribution to the material genome and a new technology cluster. Relies on renewable energy. Opportunity for diverse applications. Issues to address include access to waste stream, land available and useful for plant site for production of material. Business case completed.

CAPITAL COSTS

\$40 million.

TIMEFRAME

Two years.

LEGISLATIVE REQUIREMENTS

Normal industry and environmental approvals.

PROGRAMME NAME**Blina Diamond Project**

PROPONENT/LEAD AGENT

Phosphate Australia Ltd

CONTACT DETAILS

Phosphate Australia Ltd
Commercial Manager

Yaxi Zhan

Telephone: +61 8 9422 9503

Email: yzhan@phosphateaustralia.com.au

Website: <http://www.phosphateaustralia.com.au>

LOCATION/REGION

Kimberley

FUTURE INVESTMENT OPPORTUNITY

The project is situated within a highly endowed diamond belt with excellent logistics and significant exploration upside. Output will be diamond production, with the potential for high value yellow diamonds.

The key markets in Asia are Japan, China and India. Other key markets are United States of America and Europe (mainly high end diamonds). In recent years, the polished diamonds market has been more stable than those of silver, gold, and platinum. The projections indicate that demand for diamonds will outpace supply from 2019 onwards.

Project proponent will apply for mining permits and is looking for strategic investors for the project. This would be followed by trial mining, mining, and further drilling and exploration work to increase the resource base.

CAPITAL COSTS

\$5 million.

TIMEFRAME

Three to five years.

LEGISLATIVE REQUIREMENTS

Normal industry and environmental approvals.



PROGRAMME NAME**Coburn Heavy Mineral Sands Project**

PROPONENT/LEAD AGENT

Strandline Resources (Gunson Resources Ltd) - Coburn

CONTACT DETAILS

Strandline Resources (Gunson Resources Ltd) – Coburn
Chief Executive Officer

Geoff James

Telephone: +61 8 9226 3130

Email: enquiries@strandline.com.au

Website: <http://www.strandline.com.au/irm/content/coburn-heavy-mineral-sands-project-100.aspx?RID=306>

LOCATION/REGION

Gascoyne

FUTURE INVESTMENT OPPORTUNITY

World class heavy mineral sand field. The 18 month construction period is ready to commence once financing is secured. The proponent is currently seeking to attract a strategic partner to help fund the project development in return for a significant equity interest and/or assured long term supplies of zircon and titanium dioxide products.

CAPITAL COSTS

\$202 million.

TIMEFRAME

Long term (19+ years).

LEGISLATIVE REQUIREMENTS

N.A. (Definitive Feasibility Study and Front End Engineering and Design stage completed, fully permitted).



PROJECT NAME**Waste Management - Engine Oil**

PROPONENT/LEAD AGENT

Ashburton Aboriginal Corporation (AAC)

CONTACT DETAILS

Ashburton Aboriginal Corporation (AAC)
R&D and Enterprise Manager
Dr Stuart Gunzburg
Mobile: +61 409 681 872
Email: r.d@ashburtonac.net.au
Website: <http://ashburton.net.au/contact-us>

LOCATION/REGION

Tom Price, Pilbara

INVESTMENT OPPORTUNITY

AshOil, a wholly owned subsidiary of AAC, currently collects used cooking oil across the Pilbara region. This waste is converted to biodiesel and sold to Rio Tinto for use in their drill and blast operations. The amount of used cooking oil generated in the Pilbara region is limited. AAC and AshOil have worked with Rio Tinto and explosives provider Orica to utilise processed waste engine oil in the blasting mix.

Over 20 million litres of waste engine oil is generated in the Pilbara region annually. The vast majority of this is transported out of the region resulting in a restricted heavy access (B-double) road train containing this waste every day. More than a million kilometres of heavy vehicle road transport is associated with transport of this waste out of the region. As soon as this waste resource leaves the Pilbara region the utility of this waste is lost.

No waste engine oil re-processing facility currently exists in the Pilbara region. Toxfree's facilities only treat waste to a level where it is exported from the region. The proposed facility will retain regional waste for production of a valuable mining input. Additionally, waste engine oil standards will require AAC to develop a laboratory for quality control.

AAC is developing a processing facility to be located in Tom Price. Operations from this site include the collection, processing and transport to mine site for use in blasting operations. This

fuel directly offsets diesel used in the blasting process. This facility can profitably operate, recycle a waste and provide a competitively priced product for use in mining operations. AAC has identified a technology provider capable of processing waste engine oil into a feedstock for use in the blasting process. This processed fuel oil can be supplied at competitive prices to end users. The proposed facility will process waste engine oil into processed fuel oil for use in blasting operations in mine sites. The facility will utilise operations and capacity built up by AshOil. This includes logistics and OHSE operations developed by AshOil. A site owned by AAC in the industrial zone of Tom Price will be developed for the facility.

Waste engine oil (currently the Pilbara generates approximately 20 million litres of waste oil annually). Initial processing of 4 million litres of waste engine oil, capacity to treat replace as 20 million litres annually. This facility will provide the opportunity to provide basic laboratory technique training to interested individuals.

AAC provides the Federal Government funded community development programme across areas in the Pilbara region. This programme covers work for the beneficiaries. AAC will utilise the processing facility to provide training and employment outcomes to Aboriginal people across the Pilbara region. AAC has a significant history in utilising its enterprises to provide employment and training outcomes. The processing facility will provide training and employment outcomes for Aboriginal people from the Pilbara region.

CAPITAL COSTS

First stage development \$1.5-2 million. This is sufficient for the supply of 4 million litres of processed waste engine oil.

TIMEFRAME

Short to medium term (Immediate to 20 years).

LEGISLATIVE REQUIREMENTS

Project proponents undertake own project approvals and development.

PROJECT NAME**Waste Management - Tyres**

PROPONENT/LEAD AGENT

Ashburton Aboriginal Corporation (AAC)

CONTACT DETAILS

Ashburton Aboriginal Corporation (AAC)
R&D and Enterprise Manager
Dr Stuart Gunzburg
Mobile: +61 409 681 872
Email: r.d@ashburtonac.net.au
Website: <http://ashburton.net.au/contact-us>

LOCATION/REGION

Tom Price, Pilbara

INVESTMENT OPPORTUNITY

The proposed facility will process waste tyres and conveyor belt into carbon black, scrap steel and crude oil. The processing facility will pyrolyse waste to produce the output streams. Carbon black will be exported to overseas markets, scrap steel will be disposed by existing scrap markets, crude oil will be processed for use in the displacement of diesel in the blasting process on mine sites. Inputs include: end of life tyres, used conveyor belt and waste plastic. Expected employment of 20 persons. Initial processing of 6,000 million tonnes of waste rubber, capacity to treat 20,000 million tonnes annually. The Pilbara region is dominated by the extractive minerals industry. This development, whilst being somewhat dependent upon the minerals industry, is a new industry for the Pilbara region. Most importantly, this processing facility will convert a waste that is currently being disposed in landfill, to a useful output. No such facility currently exists in the Pilbara region. AAC will utilise the processing facility to provide training and employment outcomes to Aboriginal people from across the Pilbara region. A recent 2013 study commissioned by Waste Authority of Western Australia identified that the production of mixed rubber products (typically conveyor belt) and end of life tyres from the Tom Price and Newman region waste authority catchments were as follows:

Table 7 Waste Production in Tom Price and Newman Catchments

Catchment	Mixed Rubber (MT/year)	Tyres (MT/year)
Tom Price	6,482	86
Newman	3,908	2,302
Total	10,390	2,388

Much of this waste is disposed via landfill. Obviously this is an unsustainable solution. There has been significant research and commercialisation of technology capable of converting waste rubber to valuable products via pyrolysis.

CAPITAL COSTS

Capital equipment cost of \$17 million, site identification.

TIMEFRAME

Short to medium term.

LEGISLATIVE REQUIREMENTS

Normal industry and environmental approvals.

PROJECT NAME

Sea-Nergy Renewable Hydrogen

PROPONENT/LEAD AGENT

Sea-Nergy Pty Ltd

CONTACT DETAILS

Jason Evans
Founder
Telephone: +61 475 238 838
Email: horus1@bigpond.com

LOCATION/REGION

Carnarvon, Gascoyne

INVESTMENT OPPORTUNITY

Sea-Nergy Pty Ltd has developed a process for the renewable production of hydrogen using electrolysis of seawater accelerated through a unique catalytic method. Existing hydrogen production relies on “non-green” sources generally involving the coal and/or oil industries. With an increasing desire for renewable solutions, hydrogen is seen as the fuel of the future for countries such as Japan which is actively seeking to develop hydrogen technology to facilitate a “Hydrogen Society” and is developing infrastructure to support this.

This method of producing hydrogen as an energy solution is believed to be unique and has a potentially significant market. Being derived from solar energy and seawater with *zero emissions*, it is favourably placed to address climate change as a global economic concern. It is anticipated to draw significant domestic and international attention and presents a much “greener” alternative for such applications as hydrogen fuel cells (HFCs). The automotive industry is rapidly advancing the use of HFCs, and their use is expanding to include general domestic and industrial electricity supply and is being proposed for use in the aviation industry. Therefore the potential market for this type of green hydrogen production is enormous.

Sea-Nergy has proven the concept under laboratory conditions and requires capital for general operation and to develop a pilot plant. With adequate backing a pilot plant could be operational in approximately two years. The goal post pilot plant is to rapidly expand operations across Australia within three to five years. Utilising Australia’s abundance of solar resources and access to seawater the overall cost per production unit is comparatively low and could potentially be a significant disruption to current alternative generation methods.

The potential for the domestic and national economy is significant and could lead to an entirely new industry for export in Australia and create jobs during and post construction.

CAPITAL COSTS

\$5 million (operational capital) to \$40 million (pilot plant build).

TIMEFRAME

Short term – two to three years pilot plant.
Medium term – three to five years national expansion.
Long term – five to seven years global integration.

LEGISLATIVE REQUIREMENTS

Licensing for seawater as a feedstock.

The potential for the domestic and national economy is significant and could lead to an entirely new industry for export in Australia and create jobs during and post construction.



Industrial Development Opportunities

04

ASSETS

The regions have significant industrial opportunities based on minerals and petroleum investments with rapidly rising export volumes and values, the need for additional investments in infrastructure, and increasing activity in the tourism, agriculture, aquaculture, energy and water supplies sectors.

The presence of multi-billion dollar resource extraction activity naturally generates synergistic development and supply opportunities through the demand for goods and services, maintenance and operation capacity, and the viability of down-stream processing utilising minerals and energy resources and extraction bi-products. Bi-products from the resources sector produced by local industry (such as carbon dioxide) can be essential inputs into other industries such as algal farming and other emerging biofuel opportunities.

Strategic Industrial Areas (SIAs) which are developed to accommodate resource and export-oriented industries, including those industries that form part of the supply chain for major resource products, have been established within the Pilbara and include Boodarie, Maitland, Burrup, Ashburton North and Anketell. The Maitland and Boodarie Estates, together with the Explosives Reserve Port Hedland, are three of the limited number of sites in Australia zoned to accommodate heavy industry unsuited to more populated areas. Ports in the Pilbara are among the highest tonnage bulk export ports in the world and have potential for intermodal transport functions, with Port Hedland already having, and Karratha building, an international airport that can accommodate freight movement. The region is also home to major ground transport routes commonly used for some of the largest freight movements in Australia.

The Mid West is a major producer of minerals and agricultural produce and benefits from well-developed logistics

and industrial facilities. Moreover, Geraldton was the first regional area in Western Australia to receive the National Broadband Network (NBN) and one of only a few regional centres Australia wide to gain Fibre to the Premise (FTTP) connectivity. Because of its e-connectivity, Geraldton has also recently been identified as a prospective regional centre of choice from across Australia that could attract investors and businesses requiring world class e-connectivity within a relaxed lifestyle and without the hustle and bustle of metropolitan issues and traffic congestion.

In the Mid West the proposed development of the Oakajee Port would create a new international gateway to Asia and given the proposed PortLink Inland Freight Corridor, could position the Mid West as a logistics hub for the State, linked to a national freight network. Establishment of the Oakajee Industrial Estate (6,400 ha) would be the largest industrial estate in Western Australia.

OPPORTUNITIES

Opportunities exist to leverage the region's industrial activity, advancements in technology, existing local skills and infrastructure base and growing population to promote and encourage globally competitive logistics, engineering and supply chain common-user facilities, hubs or centres of excellence to service onshore and offshore industry needs, including defence support and emergency management. Greater levels of locally provided services to the existing minerals and energy supply chains will improve the

local capacity in the supply of services, equipment and materials fabrication, assembly and technologies.

A diverse range of opportunities exist in supporting the supply chains of large mining operations and LNG and energy projects. Services include, but are not limited to:

- Machinery and equipment installation and maintenance;
- Pipe, beam and metal fabrication;
- Facilities management;
- Printing and design;
- Communication installation, maintenance and systems management;
- Water storage and treatment services and facilities;
- Safety and environment control systems;
- Engineering and land survey;
- Diving and underwater equipment installation;
- Offshore transport;
- Environment monitoring, management and assessment;
- Worker camp production, installation and decommissioning;
- Commercial cleaning and laundry; and
- Food and retail.

A selection of industry related project opportunities are presented overleaf.

PROGRAMME NAME

Shire of Broome - Construction Services

PROPONENT/LEAD AGENT

Shire of Broome (West Kimberley)

CONTACT DETAILS

Shire of Broome
Economic Development Manager
Telephone: +61 8 9191 3456

REGION/LOCATION

Broome, Kimberley

FUTURE INVESTMENT OPPORTUNITY

Construction services taking advantage of the following opportunities:

- Construction is a key industry for Broome accounting for 26% of the businesses in the Shire. It provides close to 700 jobs in Broome representing 9.4% of total employment. The industry sector represents the highest contribution to GRP at 14.6%;
- Distinctive building vernacular creating environmentally and socially sustainable built form. Broome has construction capacity in local builders with high expertise in residential, multi storey commercial and large industrial construction;
- Continuing growth, investment projects and key industries such as oil and gas, health and community services and government housing initiatives plus high industrial and residential land availability will ensure ongoing investment in construction;
- Advantage of high availability of quality industrial, commercial and residential land in strategic locations close to the town centre and major transport infrastructure;
- There are many commercial opportunities to develop and grow alongside the Port in support of existing businesses, with significant growth expected in the onshore exploration and development of hydrocarbons and other expanding industry sectors;

- Industrial land estates include: Blue Haze Light Industrial, Broome Road Industrial Park and Port Drive Industrial, all providing significant development potential to service growth industries reliant on construction such as oil and gas, transport, logistics and marine services;
 - Future tourism and commercial development is well catered for in locations such as Fairway Drive and Cable Beach Road. The proposed Chinatown Redevelopment has a State budget of \$10 million, which will be matched by a further \$2 million by the Shire of Broome. This town centre renewal project will realise construction opportunities within the public realm and stimulate significant private sector investment in the area;
 - Additional significant residential land estates are available to meet the growth and high liveability that Broome provides across the region. Residential estates include Broome North, Waranyjarri Estate, Sunset Rise, Januburu Six Seasons, Birragun Buru; and
 - The Department of Housing has large scale programmes that will drive construction in Broome and the Kimberley including the Social Housing Investment Package which is a \$560 million programme providing priority housing for seniors and families. Of these houses 10% will be built within the Kimberley. An additional 48 houses will also be delivered across other Department of Housing programmes such as the West Kimberley Transitional Housing, Non Government and Government Regional Officer Housing Programs.
-

CAPITAL COSTS

To be confirmed.

TIMEFRAME

Short to long term (Immediate to 20 years).

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate with the Shire of Broome and if applicable native title, and water licences.

PROGRAMME NAME**Shire of Broome - Logistics Services**

PROPONENT/LEAD AGENT

Shire of Broome (West Kimberley)

CONTACT DETAILS

Shire of Broome
Economic Development Manager
Telephone: +61 8 9191 3456

REGION/LOCATION

Broome, Kimberley

FUTURE INVESTMENT OPPORTUNITY

Logistics services taking advantage of the following opportunities:

- Broome is a natural strategic location for logistics due to its proximity to the Indian Ocean Sea Lanes via the existing deep water Port offering a broad range of maritime capabilities;
- It has road access to the Kimberley hinterland on the sealed Great Northern Highway, which is utilised by many industry sectors including pastoral, minerals, onshore oil and gas and tourism;
- Broome also has a natural advantage of access to the offshore Browse Basin being half the distance of the closest established supply bases in Darwin and Dampier;
- The Broome International Airport has readily available capacity to support aviation logistics and has undertaken significant investment to develop the Broome Heliport Precinct;
- This features four operational full maintenance helicopter hangars and planning approval for two helicopter storage hangars. This is matched by enhancements to the runway, lighting and passenger handling facilities to meet growing demand for oil and gas logistics activity. The Djarindjin airfield on the Dampier Peninsula north of Broome provides the ideal refuelling staging point for access to the Browse Basin and provides Aboriginal employment and training opportunities in Lombadina. Djarindjin is also strategically positioned to capably manage cyclone evacuations;
- The high availability of appropriately zoned industrial land

for both large and small enterprises in close proximity to transport routes and infrastructure is another positive for investment in logistics in Broome;

- Continuing growth, investment projects and key industries such as oil and gas, health and community services and government housing initiatives plus high industrial and residential land availability will ensure ongoing investment;
- Advantage of high availability of quality industrial, commercial and residential land in strategic locations close to the town centre and major transport infrastructure;
- There are many commercial opportunities to develop and grow alongside the Port in support of existing businesses, with significant growth expected in the onshore exploration and development of hydrocarbons and other expanding industry sectors; and
- Industrial land estates include: Blue Haze Light Industrial, Broome Road Industrial Park and Port Drive Industrial all providing significant development potential to service growth industries reliant on construction such as oil and gas, transport, logistics and marine services.

CAPITAL COSTS

To be confirmed.

TIMEFRAME

Short to long term (Immediate to 20 years).

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate with the Shire of Broome.

PROGRAMME NAME**Shire of Broome - Marine Services**

PROPONENT/LEAD AGENT

Shire of Broome (West Kimberley)

CONTACT DETAILS

Shire of Broome
Economic Development
Daniel High
Telephone: +61 8 9191 3456
Email: Daniel.High@broome.wa.gov.au

REGION/LOCATION

Broome, Kimberley

FUTURE INVESTMENT OPPORTUNITY

Marine services taking advantage of the following opportunities:

- The Port's highly trained workforce can provide stevedoring services with 45 tonne, 100 tonne and 250 tonne cranes being available on the wharf;
- Pilot and towage services to ensure safe shipping activities are provided by third party contractors;
- The Kimberley Port Authority (KPA) has approximately 19 ha of land located in close proximity to the wharf available for lease. In support of investment in facilities close to the Port, KPA obtained \$24 million in funding from the State Government to extend the life of the original wharf with works to commence towards the end of 2015;
- The Port will continue to actively support operations in the Browse Basin, a world class petroleum region that is estimated to contain 25% of Australia's gas reserves;

- Broome is also home to the Broome Maritime Simulation Centre (BMSC) based at the Kimberley Training Institute. The Centre specialises in state of the art maritime simulation services for new and existing ports. It provides services for the research and design phases of new port development, through to training and operational procedures. The BMSC has carried out numerous projects for Australian and international clients over the past eight years and is the only centre in Australia endorsed to deliver seaways accredited training for Azimuth Stern Drive operations;
- There are many commercial opportunities to develop and grow alongside the Port of Broome in support of existing businesses, with significant growth expected in the onshore exploration and development of hydrocarbons and other expanding industry sectors; and
- Port currently undertaking an extension of life project to secure facility into the future.

CAPITAL COSTS

To be confirmed.

TIMEFRAME

Short to long term (Immediate to 20 years).

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate with the Shire of Broome.

There are many commercial opportunities to develop and grow alongside the Port in support of existing businesses, with significant growth expected in the onshore exploration and development of hydrocarbons and other expanding industry sectors.

PROGRAMME NAME**Broome Road Industrial Park**

PROPONENT/LEAD AGENT

LandCorp (Broome in the West Kimberley)

CONTACT DETAILS

Regional Manager Kimberley
Simon Proud
1st Floor, Cnr Dampier and Napier Terrace, Broome, Western
Australia 6725
Telephone: +61 8 9192 6557
Mobile: +61 409 927 578
Email: Simon.Proud@landcorp.com.au

REGION/LOCATION

Broome, Kimberley

FUTURE INVESTMENT OPPORTUNITY

Broome Road Industrial Park is 412 ha industrial estate which will provide freehold land for a number of support industries including transport and logistics, construction, offshore servicing, agricultural services and marine support. Industrial area connected to major infrastructure including Broome Port, major transport roads, and the airport. Lots serviced with power and potable water.

Broome is a major service centre for the Kimberley region with some of the world's largest natural gas reserves in the offshore Browse Basin and on-shore in the Canning Basin. In addition there are large scale agricultural/pastoral station developments and other minerals onshore. Broome is a major tourism town with well-serviced industry and logistics connections including direct flights to Perth, Darwin, Karratha, Port Hedland, Kununurra, Sydney and Melbourne.

CAPITAL COSTS

To be confirmed.

TIMEFRAME

Short to long term (Immediate to 20 years).

LEGISLATIVE REQUIREMENTS

Project proponents undertake own project approvals and development.



PROGRAMME NAME**North West Strategic Industrial Areas**

PROPONENT/LEAD AGENT

LandCorp

CONTACT DETAILS

LandCorp
Manager Strategic Industrial
Vaughan Brazier
Telephone : +61 8 9482 7579
Mobile : +61 438 765 730
Email : vaughan.brazier@landcorp.com.au
Website : <http://www.landcorp.com.au/About-Us/Contact-Us>

REGION/LOCATION

Kimberley, Pilbara and Mid West

FUTURE INVESTMENT OPPORTUNITY

Large-scale land areas connected to major infrastructure such as ports, roads, gas and protected by established buffers available for heavy and strategic industries. Particularly planned for downstream processing opportunities of each regions natural resources (i.e. natural gas and iron ore). Unserviced land is available for long-term lease. All areas are already planned and have been through a community engagement process. Larger projects may also provide community and social infrastructure benefits opportunities for re-use of industrial by-products and renewable energy production in buffers. Areas carefully selected to minimise environmental harm and protect existing townsite amenities through established buffers.

Diversification through value adding to existing industries/ resources. Providing land for international, national and regional projects. Economic impact of projects is usually much wider

than local area. Larger scale projects will generate demand for many other projects in region to service the proponents. Large economic multiplier effect.

Current strategic industrial areas with their industrial focus are as follows:

- Browse, Broome - Gas processing;
- Boodarie, Port Hedland - Mineral, gas and energy processing;
- Anketell, Karratha - Connected to future port and resource based industries;
- Burrup, Karratha - Gas and downstream gas processing;
- Maitland, Karratha - Resource based industries;
- Ashburton North, Onslow - Connected to new port and hydrocarbon processing; and
- Oakajee, Geraldton - Connected to future port and resource based industries.

CAPITAL COSTS

Up to individual proponent's project. Some existing major project developments in the area are approximately \$29 billion (Wheatstone - Ashburton North); \$15 billion (Pluto - Burrup); \$1.5 billion (Macedon - Ashburton North); \$800 million (Yara Nitrates - Burrup).

TIMEFRAME

Short to long term (Immediate to 20 years).

LEGISLATIVE REQUIREMENTS

Project proponents undertake own project approvals and development.

Figure 4: Strategic Industrial Areas in Kimberley, Pilbara and Mid-West



PROJECT NAME**Shire of Broome Small Medium Enterprise Project**

PROPONENT/LEAD AGENT

Shire of Broome

CONTACT DETAILS

Shire of Broome
Economic Development Manager
Telephone: +61 8 9191 3456

REGION/LOCATION

Broome, Kimberley

INVESTMENT OPPORTUNITY

Broome is well positioned for investment in small business opportunities due to ongoing population growth with estimates detailing that population will double to 34,600 by 2036. Broome's population and key industry growth will drive new investment in small businesses. There are over 1,400 businesses that operate in the Shire of Broome and over 70,000 m² of commercial floor space.

Many key industries requiring small business support such as agriculture, construction, marine services, logistics, aquaculture and tourism are benefitting from a range of high value government and private sector investments. Ongoing growth in both onshore and offshore oil and gas deposits close to Broome will ensure long term opportunities for small to medium size businesses in the downstream services sector.

Available supply of commercial, industrial and residential land along with high growth in key industries requiring support services creates an ideal scenario for small business opportunities and investment in Broome.

A range of State Government initiatives such as the Water for Food programme (\$40 million), the La Grange agricultural project, the Kimberley Aquaculture Development Zone and Northern Beef Futures Programme will drive investment in agribusiness and aquaculture, providing ongoing opportunity for related small business operators.

The Chinatown Redevelopment which is budgeted at \$10 million from the State Government and \$2 million from the Shire of Broome will realise numerous opportunities and increase customer amenity for retail, hospitality, arts and tourism based small business.

The rollout of the National Broadband Network in Broome, in advance of many urban areas, will provide a solid platform to increase business activity in the creative, arts and professional services sector. With unrivalled liveability and a strong sense of community the time is right to consider small business opportunities in Broome. Relocating more government departments in Broome would also have some scope as a regional service centre.

CAPITAL COSTS

A range of developable land sizes available.

TIMEFRAME

Short to medium term: Ongoing release of lots as demand requires.

LEGISLATIVE REQUIREMENTS

Project proponents undertake own project approvals and development.

PROGRAMME NAME**Shire of Ashburton Industrial, Resource, Marine Development**

PROPONENT/LEAD AGENT

Shire of Ashburton

CONTACT DETAILS

Shire of Ashburton

Chief Executive Officer

Neil Hartley

Telephone: +61 8 9188 4457

Email: Neil.Hartley@ashburton.wa.gov.au

Website: <http://www.ashburton.wa.gov.au/contact/contact-us>

REGION/LOCATION

Onslow, Pilbara

FUTURE INVESTMENT OPPORTUNITY

Subdivision of 35 ha of land in Onslow to be made available for lease as unserviced mixed business lots (Onslow Industrial Subdivision). Twelve unserviced lots leasehold/55 serviced

lots freehold industrial land. Also serviced industrial land – Freehold. Ten serviced industrial lots ranging in size from 2,220 m² to 8,879 m². Business continuity through available land. Ancillary support and value-add enterprises to marine project and Ashburton North Strategic Industrial Area projects. Job diversification and employment opportunities.

CAPITAL COSTS

\$10 million+. Awaiting positive outcome from LandCorp Feasibility Study.

TIMEFRAME

Short to long term (Immediate to 20 years).

LEGISLATIVE REQUIREMENTS

Project proponents undertake own project approvals and development.

PROJECT NAME**Kingsford Business Park**

PROPONENT/LEAD AGENT

Town of Port Hedland

CONTACT DETAILS

Town of Port Hedland

Manager Economic and Strategic Planning

PO Box 41 Port Hedland, Western Australia 6721

Telephone: +61 8 9158 9309

Email: mgreld@porthedland.wa.gov.au

Website: www.porthedland.wa.gov.au

REGION/LOCATION

Port Hedland, Pilbara

INVESTMENT OPPORTUNITY

The Town has suffered from a lack of competitively priced land, which has acted as a disincentive to investment. The 113 ha development includes:

- Strategic location directly adjacent to the Port Hedland International Airport and along the Great Northern Highway between Port Hedland and South Hedland, ensuring considerable traffic flows past the park on a daily basis;
- Existing services including water and power;

- Flexible master plan with the ability to amalgamate lots to suit tenant requirements; and
- The estate is located adjacent to the Port Hedland International Airport and in an optimal position for both industrial and bulky goods retail.

Land development/property-bulky goods, light industrial and warehouse. Thirty three development ready bulky goods, showroom, light industrial and warehouse development ready parcels from 3,000 m² to over 3 ha. Land parcels are development ready. Potential for commercial/bulky goods floor space and economic diversification.

CAPITAL COSTS

Parcels are available from \$150/m². Leasing also an option.

TIMEFRAME

Short to medium term: Ongoing release of parcels as demand requires.

LEGISLATIVE REQUIREMENTS

Project proponents undertake own project approvals and development.

PROJECT NAME**Wedgefield Industrial Estate**

PROPONENT/LEAD AGENT

LandCorp

CONTACT DETAILS

LandCorp
Regional Manager West Pilbara
Travis McNaught
Telephone : +61 8 9482 7505
Mobile: +61 409 209 628
Email: Travis.Mcnaught@landcorp.com.au
Website: <http://www.landcorp.com.au/About-Us/Contact-Us>

REGION/LOCATION

Port Hedland, Pilbara

INVESTMENT OPPORTUNITY

Land development/industrial. Industrial land – transport development zone/general industrial. Design guidelines to

ensure built form incorporates sustainability features. Titled lots available for sale. Fully serviced land, roads, footpaths, landscaping. Transport development zone with road linkages to mining and other business/industries.

CAPITAL COSTS

A range of developable land sizes available.

TIMEFRAME

Short to medium term: Ongoing release of lots as demand requires.

LEGISLATIVE REQUIREMENTS

Project proponents undertake own project approvals and development.

PROGRAMME NAME**Carnarvon Airport Industrial Project**

PROPONENT/LEAD AGENT

Shire of Carnarvon

CONTACT DETAILS

Shire of Carnarvon
Chief Executive Officer
Ian D'Arcy
Telephone: +61 8 9941 0052
Mobile: +61 418 959 725

REGION/LOCATION

Carnarvon, Gascoyne

FUTURE INVESTMENT OPPORTUNITY

Industrial services taking advantage of the following opportunities:

- Continuing growth, investment projects and key industries such as intensive agriculture, tourism, health and community services and government housing initiatives plus high industrial and residential land availability will ensure ongoing investment;

- Advantage of high availability of quality industrial, commercial and residential land in a strategic location close to the town centre and major transport infrastructure;
- Potential logistics hub;
- There are many commercial opportunities to develop and grow alongside the airport in support of existing businesses, with significant growth expected in agriculture (crops and livestock); and
- Additional significant residential land estates are available to meet the growth and high liveability of Carnarvon.

CAPITAL COSTS

Dependent on proponents needs.

TIMEFRAME

Short to medium term (one to five years).

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate with the Shire of Carnarvon.



Agriculture and Aquaculture Investment Opportunities

05

A. CROPS

ASSETS

Investment opportunities are underpinned by Federal and State government funding and proactive policies and rapidly expanding markets in Asia and also in Europe and the United States. The agriculture and aquaculture industry is very well serviced by established research, and government departments such as the Department of Agriculture and Food, Western Australia, the Department of Water, the Department of Lands, the Department of Fisheries and the Department of Regional Development. World-class processing facilities are owned and operated by well-established private enterprise organisations marketing produce in Australia and the rest of the world, with strong links to Asia.

Table 8: Current Cropped Areas, Value and Types

Region	Area under Cultivation (ha)	Value of Annual production (\$ millions)	Crop Types
Kimberley	20,000	250	<ul style="list-style-type: none"> • Horticulture • Fodder • Grains • Oilseeds
Pilbara	2,000	10	<ul style="list-style-type: none"> • Horticulture • Fodder
Gascoyne	3,600	232	<ul style="list-style-type: none"> • Horticulture (Bananas, tomatoes, table grapes, capsicum and mango)
Mid West		800	<ul style="list-style-type: none"> • Wheat (1.25 Mt) • Canola (118,000 tonnes) • Lupins (119,000 tonnes) • Horticulture
Total		1.3b	

The total potential arable area is over 6 million ha and is larger than the area of many countries. The range of crops that can be grown is substantial, including grains, oilseeds, nuts, horticultural crops, legumes, vegetables, sugar cane, coffee and cotton. The cropped area is increasingly aided by irrigation water supplies.

MARKETS

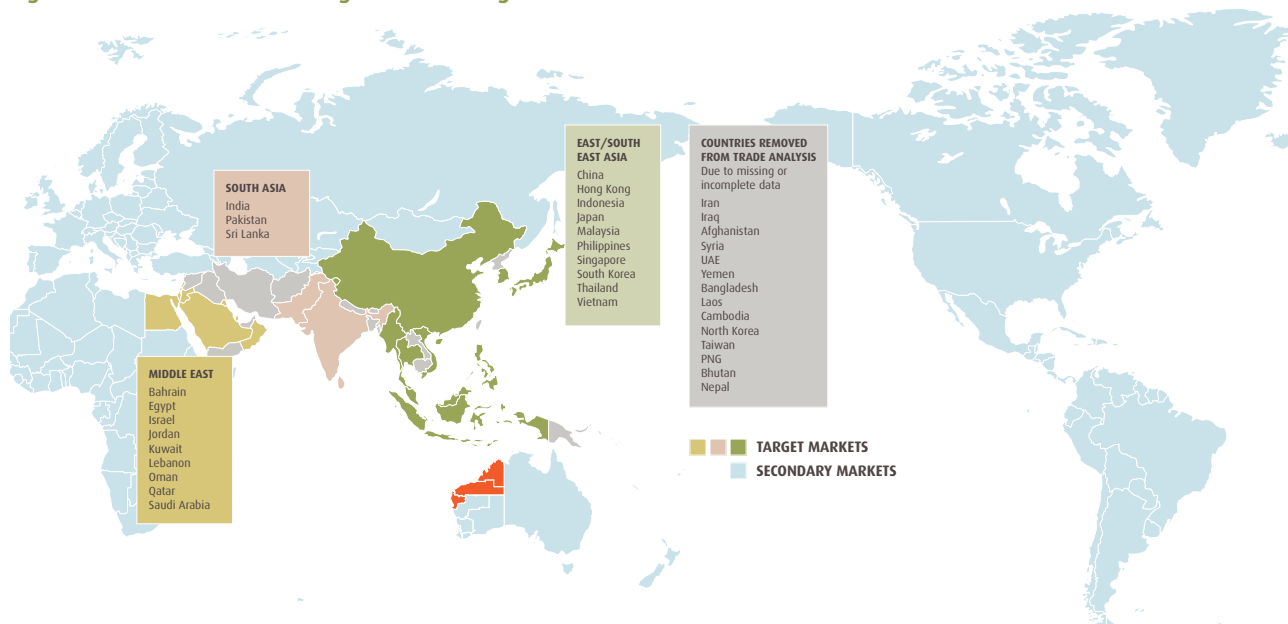
Global food production will need to increase by 60% by 2050 to meet projected demand levels. At the same time, global food production is projected to grow at only 1.7% per annum over the next 10 years, as a combination of

increased resource competition from bio-fuels and increased environmental protection that constrain production. Demand is already outpacing supply in international markets, with food price volatility increasing dramatically since 2006 and with prices trending upwards from 2000 lows, after decades of real food price declines resulting from increased productivity.

Growing food demand from both increased global population and emerging middle classes in China, India and ASEAN countries will underpin demand for a diverse range of agricultural commodities, resulting in the international export market opening up further for the four regions.

A study commissioned by Department of Agriculture and Food, Western Australia in 2015 identified eighteen high potential products as opportunities for irrigated agriculture in north Western Australia. These products all have a growing market with a wide spread of buyers and sellers. Asia and the Middle East are attractive markets to Western Australia. These countries are high growth markets and import significant volumes from climatic peers. Western Australia can compete in these markets.

Figure 5: Countries Defined as High Potential Target Markets for North Western Australia



Source: GROWING THE NORTH: Coriolis: Market opportunities for irrigated agricultural produce from northern Western Australia

A selection of agricultural crop related project opportunities are presented below:

PROJECT NAME

Ord East Kimberley Expansion Project (consisting of discrete projects)

PROPONENT/LEAD AGENT

Department of Regional Development

CONTACT DETAILS

Department of Regional Development
Director Major Projects Ord East Kimberley Expansion
Cnr Messmate Way and Bandicoot Drive Kununurra
Western Australia 6743
Telephone:+61 8 9166 7804
Website: www.drd.wa.gov.au

REGION/LOCATION

Kimberley

WATER SUPPLY

The Ord River is a 320 km long river in the East Kimberley region of Western Australia. The river’s catchment covers 46,100 km². The Ord River Diversion Dam holds back Lake Kununurra which gravity feeds the Ord River Irrigation Area with water via the Main Channel. The main Ord River Dam, known locally as “Top Dam” holds back the waters of the Ord River in Lake Argyle, which is Australia’s largest dam reservoir, covering an area of 741 km².

POWER SUPPLY

The Ord River Dam Hydro Scheme is a privately funded, owned and operated power system that is interconnected by a 132 kilovolts transmission lines, with existing diesel fuelled power systems at the Argyle Diamond mine and the Kununurra township.

ORD STAGES 1 AND 2

Stage 1: Completed and consists of 15,000 ha of agricultural crops including mangoes, citrus, watermelons, rock melons, pumpkin, chickpeas, sandalwood and chia.

Stage 2: The State Government awarded the Kimberley Agricultural Investment (KAI) the right to develop the Stage 2 areas (13,400 ha) and the first crops were grown in 2015, building on the \$517 million Ord-East Kimberley Expansion Project funds committed by the State Government including \$322.5 million Royalties for Regions for investment in key agricultural infrastructure. Stage 2 aims to double the size of the Ord Irrigation Scheme Area to 29,000 ha. Crops grown have included grains, chia, millet, sorghum and quinoa.

KAI proposes to invest approximately \$700 million to establish a sustainable large-scale sugar industry including a refinery with power co-generation and a major upgrade to Wyndham Port. The company also wishes to explore any opportunity that may arise for the future development of a further 14,000 ha into the

Northern Territory. KAI is a company experienced in complex construction projects, and its proposal to establish a sugar industry will deliver significant regional development outcomes for the east Kimberley region.

The \$700 million KAI project is expected to provide:

- Contract-grower opportunities for existing landholders in sugar and rotational cropping;
- Production of up to 4 Mt of sugar cane producing up to 500,000 tonnes of sugar crystal per annum;
- Multiplier effects on local businesses from a large-scale sugar industry;
- Development of sugar mill at an estimated cost of \$425 million with a potential second mill train;
- Development of a co-generation power plant with potential output of 60 to 80 megawatts and ability to supply surplus power back into the grid;
- Strategy to underpin local Aboriginal civil contractors;
- Construction employment averaging 350 persons from 2014-18;
- Operational staff starting at approximately 100 in 2017 ramping up to more than 400 by 2021 once full production is achieved;
- Potential ethanol plant;
- Potential for a medium density fibre board plant producing up to 300,000 tonnes per annum;
- Possible establishment of an industrial park; and
- Major upgrade of Wyndham Port facilities.

Ord West Bank and Mantinea:

Following a competitive Request for Proposal process in 2015:

- 1,000 ha of arable new land known as West Bank has been awarded to TFS Limited a publicly listed company in Australia specialising in the production of sandalwood products; and
- 4,000 ha of arable new land known as Mantinea has been awarded to KAI to further advance its food and fibre production interests.

GOVERNMENT INVESTMENT AND SUPPORT

Western Australia welcomes private sector investment and believes successes in the energy and resources sector can be paralleled with building agricultural capacity and contributing to food security for Australia and the world. The State Government's investment in this Project is creating an exciting new economic growth centre in northern Australia. It strengthens the East Kimberley's potential to supply agricultural produce for Australian and international markets. It develops Kununurra as a major regional hub with a vibrant economy based on agriculture, mining and eco and cultural tourism, providing sustainable employment and partnership opportunities for the region's Miriwung and Gajerrong people. The key State-owned infrastructure established under the Ord-East Kimberley Expansion Project will assist in unlocking the full agricultural potential of the region. The State Government has invested \$311 million through the Royalties for Regions programme

and a further \$11.5 million through the Department of State Development for the delivery of key infrastructure to expand the Ord Irrigation Scheme.

CURRENT INVESTMENT OPPORTUNITY

Up to 10,000 ha in total in the Kimberley region and:

- 14,000 ha in the adjacent Northern Territory has been identified for development in discrete project areas around and to the north of Kununurra; including public road infrastructure built by the State Government to support the potential development of mineral and land-based gas deposits adjacent to the new agricultural land; and
- 6,000 ha of sandy soils known as Cockatoo Sands, to be offered to the market by a competitive Request for Proposal process in 2016. This new land currently undeveloped but with significant potential in the Ord Irrigation Scheme.

DIRECT ECONOMIC BENEFITS

The potential to irrigate large-scale additional hectares of land in the area will create significant investment and job opportunities and will add significantly to the quantity of marketable produce in the involved Shires. The economic impact will be substantial:

- The State Government's investment in this Project is creating an exciting new economic growth centre in Northern Australia. It strengthens the east Kimberley's potential to supply agricultural produce for Australian and international markets;
- It develops Kununurra as a major regional hub with a vibrant economy based on agriculture, mining and eco and cultural tourism;
- The State Government has invested \$311 million through the Royalties for Regions programme and a further \$11.5 million through the Department of State Development for the delivery of key infrastructure to expand the Ord Irrigation Scheme;
- Significant upgrades have been made to school and health facilities, social and transitional housing, Kununurra airport and the Port of Wyndham;
- The current Ord Irrigation Scheme economy of around \$120 million per annum will more than double following the completion of the Ord-East Kimberley Expansion Project;
- The Ord Irrigation Scheme needs both industry scale and diversity. The State Government's approach captures these aims. The key State-owned infrastructure will assist in unlocking the full agricultural potential of the region;
- Construction of water infrastructure. The establishment of further irrigated agriculture would involve substantial construction associated with the layout of the water delivery system and farms, together with other community services such as roads. The amount of expenditure would depend on the distance water was carried and the size of the proposed irrigation district;
- Farm Establishment. The construction associated with farm establishment would include land clearing, laser levelling, on-farm layout of irrigation systems pumping, farm structures and machinery;

- Farm Service Sector. The growth and establishment of farm specialists in a consulting capacity, the supply of fertilisers, fuel, farm supplies and irrigation equipment; and
- Multiplier Effects. On the basis there would be substantial opportunity for families to establish in the agricultural districts or precincts, there would be additional economic activity in the retail and service sectors of each town in addition to the broader government services required to support a higher population.

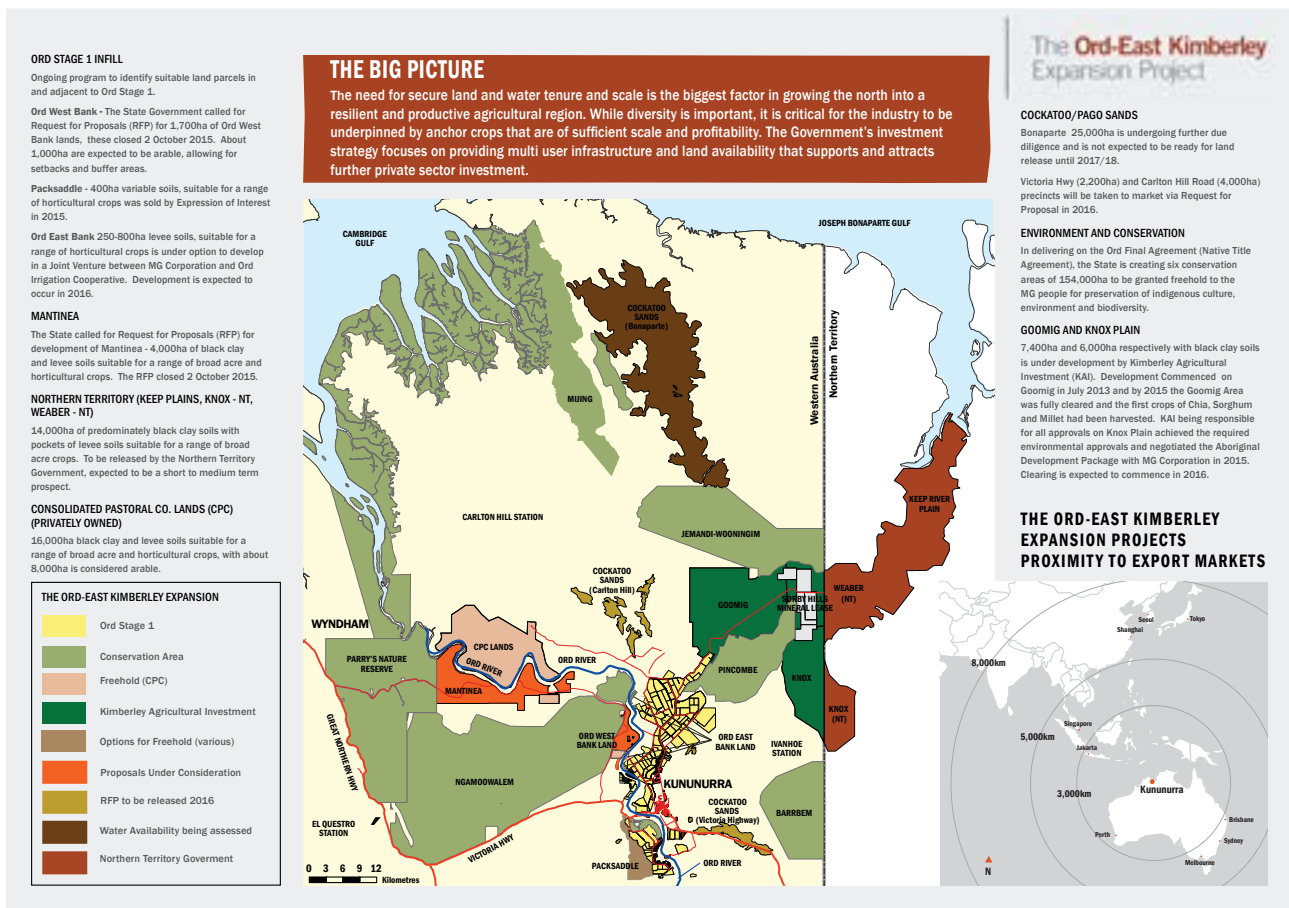
LEGISLATIVE REQUIREMENTS

Proponents are required to negotiate the Land Tenure Pathway for irrigated agriculture projects, administered by the Department of Lands. This includes negotiations concerning native title; pastoral leases; agreements with mining companies if applicable; and water licences.

CROSS REGIONAL BENEFITS

There are close links with irrigation potential in the adjacent Northern Territory for 14,000 ha of irrigated production from the same water sources.

Figure 6: The Ord-East Kimberley Expansion Project



SUB PROJECT NAME**Cockatoo Sands**

PROPONENT/LEAD AGENT

Department of Regional Development

CONTACT DETAILS

Department of Regional Development
Director Major Projects Ord East Kimberley Expansion
Cnr Messmate Way and Bandicoot Drive Kununurra Western
Australia 6743
Telephone: +61 8 9166 7804
Website: www.drd.wa.gov.au

REGION/LOCATION

Kimberley

PRODUCT/SERVICES

- Crop production on 6,000 ha: Possible crops include a range of fruits and vegetables, legumes, oilseeds, sandalwood, cotton, chia and quinoa; and
- Agri-processing.

DESCRIPTION

The Cockatoo Sands have great potential because they are well-drained red loamy sands and so have the capacity to support agriculture throughout the year including the wet season:

- Proponents to develop the land, irrigation infrastructure, storage and processing facilities; and
- 2,200 ha of this land has highway all weather access and is 10 km from the town of Kununurra.

CAPITAL INVESTMENT

\$130 million to \$215 million.

TIMEFRAME

To be offered to the market by a competitive Request for Proposal process in 2016.

SUB PROJECT NAME**Ord East Bank**

PROPONENT/LEAD AGENT

Ord Irrigation Cooperative and Miriwung Gajerrong Corporation, which have an option with the Western Australian Government to bring this land into production.

CONTACT DETAILS

Department of Regional Development
Director Major Projects Ord East Kimberley Expansion
Cnr Messmate Way and Bandicoot Drive, Kununurra Western
Australia 6743
Telephone: +61 8 9166 7804
Website: www.drd.wa.gov.au

REGION/LOCATION

Kimberley

PRODUCT/SERVICES

- Crop production on 850 ha of red levee soils adjacent the Ord River. Possible crops include sugar cane; a range of fruits and vegetables, legumes, oilseeds, sandalwood.; and
- Agri-processing.

DESCRIPTION

- Proponents to develop the land, road infrastructure, irrigation infrastructure, storage and processing facilities;
- 850 ha of red levee soils adjacent the Ord River; and
- Secure fresh water supply from lower Ord River with pumping right allocations.

CAPITAL INVESTMENT

\$11 million.

Possible joint venture opportunity with proponents or land acquisition opportunity.

TIMEFRAME

2016.

SUB PROJECT NAME**Cockatoo Sands/Bonaparte Plains**

PROPONENT/LEAD AGENT

Department of Regional Development

CONTACT DETAILS

Department of Regional Development
Director Major Projects Ord East Kimberley Expansion
Telephone: +61 8 9166 7804
Website: www.drd.wa.gov.au

REGION/LOCATION

Kimberley

PRODUCT/SERVICES

- Crop production on 25,000 ha. Possible crops include sugar cane; a range of fruits and vegetables, legumes, oilseeds, sandalwood, cotton, chia, quinoa, timber; and
- Agri-processing.

DESCRIPTION

- Pumped water from the Ord River and/or from local aquifer piped by the developer to irrigate 25,000 ha of red sands. The Cockatoo Sands have great potential because they are well-drained and so have the capacity to support agriculture throughout the wet season; and
- Proponents to develop the land, road infrastructure, irrigation infrastructure, storage and processing facilities.

CAPITAL INVESTMENT

\$200 million to \$440 million.

TIMEFRAME

Not available until 2017 but interested proponents may wish to make their interest known.

The Cockatoo Sands have great potential because they are well-drained and so have the capacity to support agriculture throughout the wet season.

PROJECT NAME**Water for Food West Kimberley**

PROPONENT/LEAD AGENT

Department of Water and Department of Regional Development

CONTACT DETAILS

Department of Water

Telephone: +61 8 6364 7600

Website: <http://www.water.wa.gov.au/contact-us>

REGION/LOCATION

Kimberley

GOVERNMENT INVESTMENT AND SUPPORT

The overall Water for Food initiative is a four year interagency programme, which uses new water source discoveries to enable the development of new irrigation areas and increase the size and water efficiency of existing irrigation districts. This will assist to diversify and strengthen the State and regional economies, and it will contribute to the State goals of doubling the value of agricultural exports by 2025.

Stage 1 is comprised of four projects with a \$15.5 million Royalties for Regions investment in the west Kimberley. The initial West Kimberley Water for Food projects aim to stimulate irrigation on suitable land near common-user infrastructure, including all-weather roads, ports, air services and airport facilities. Each of the initial projects has an Aboriginal benefit component and offers the potential for creating sustainable jobs and training opportunities.

There are four complementary and interrelated sub-projects in the west Kimberley:

- Mowanjum Pastoral Lease Irrigation Trial;
- Knowsley Agricultural Area Water Investigation;
- Fitzroy Valley Groundwater Investigation; and
- Land Tenure Options Project.

Collaboratively the sub-projects will develop pathways for the conversion of areas of Crown land (subject to proponents securing required agreements and approvals at their cost) into alternative forms of land tenure, to allow for third party investment and underpin industry development in the north of the State.

CURRENT INVESTMENT OPPORTUNITY

The potential to irrigate large-scale hectares of land in the areas will create significant investment and job opportunities and will add significantly to the quantity of marketable produce in the West Kimberley. Specific projects in the West Kimberley (see projects below) involve:

- Agricultural production;
- Agri-processing; and
- Support services.

LEGISLATIVE REQUIREMENTS

Proponents are required to negotiate the Land Tenure Pathway for irrigated agriculture projects, administered by the Department of Lands. This includes negotiations concerning native title; pastoral leases; agreements with mining companies if applicable; and water licences.

Each of the initial projects has an Aboriginal benefit component and offers the potential for creating sustainable jobs and training opportunities.



SUB PROJECT NAME**Knowsley Agricultural Area Water Investigation**

PROPONENT/LEAD AGENT

Department of Water

CONTACT DETAILS

Department of Water
Project Director, Water for Food
168 St Georges Terrace Perth, WA, 6000
Telephone: +61 8 6364 7687
Website: www.waterforfood.wa.gov.au

REGION/LOCATION

Derby, Kimberley

INVESTMENT OPPORTUNITY

The Knowsley Agricultural Area is a parcel of unallocated crown land on the outskirts of Derby that provides the potential for future irrigation and intensive cropping. This project will identify water supply options and identify suitable land parcels within a 5,000 ha envelope for irrigated development.

Irrigated farming, including high value horticulture, will provide significant potential as a new industry opportunity for Derby and the West Kimberley region. Further dry season irrigation is dependent on defining a sustainable water supply and achieving approvals, including native title.

This project aims to define sustainable water supply options in the shallow and deep aquifers and evaluate the potential to source water from the May-Meda Rivers alluvium to the east of Derby and from the lower Fitzroy River alluvium to the south.

CAPITAL INVESTMENT

To be confirmed.

TIMEFRAME

Short term.

SUB PROJECT NAME**Mowanjum Irrigation Project**

PROPONENT/LEAD AGENT

Department of Water

CONTACT DETAILS

Department of Water
Project Director, Water for Food
168 St Georges Terrace Perth, WA, 6000
Telephone: +61 8 6364 7687
Website: www.waterforfood.wa.gov.au

REGION/LOCATION

Derby, Kimberley.

INVESTMENT OPPORTUNITY

This project is a research agreement and funding partnership between the State Government and the Mowanjum Aboriginal Corporation, a 350 strong community located on the outskirts of Derby.

Mowanjum's 55,000 ha pastoral lease contains large tracts of prime grazing land. It requires a dry-season feeding capability to realise its aspiration of reaching an initial production target of 10,000 to 15,000 head of its own branded cattle and stock agisted for other Aboriginal stations.

In June 2014, State Government supported a business case to establish an irrigation trial on a 400 ha diversification permit on Mowanjum station.

A 38 ha centre pivot irrigation system was commissioned in August 2015 to access underutilised groundwater sources and develop a stand and graze operation. Mowanjum's first consignment of around 240 Brahman-cross cattle from the stand and graze operation was prepared for export through the Broome Port in April 2016.

Over 200 tonnes of hay and silage were cut in March 2016. This small hay production operation has helped diversify the Mowanjum cattle operation and create sustainable job and training opportunities.

The trial is a demonstration model for other pastoral stations in the Kimberley. Crop research, irrigation data and herd analysis will be published and shared to enable growth of pastoral operations and capitalise on the world's expanding beef market.

In December 2015, the State Government approved an application by Mowanjum Aboriginal Corporation for an option to proceed to conditional freehold for an area of 4,000 ha in accordance with the *Water for Food Land Tenure Option Plan*.

The project will:

- Underpin the community's aspiration to become a viable pastoral operation;
- Provide a field training facility for North Regional TAFE – Derby Campus Pastoral Management Studies programme for both Mowanjum and Derby students;
- Provide vocational training opportunities for Derby High School students; and
- Assist Mowanjum to negotiate approvals for a land tenure change on parts of the lease to more flexible land use tenure and attract third party investment.

CAPITAL INVESTMENT

Indicative: \$50 million depending on scale.

TIMEFRAME

Immediate.

SUB PROJECT NAME

La Grange West Canning Project

PROPONENT/LEAD AGENT

Department of Water

CONTACT DETAILS

Department of Water
Project Director, Water for Food
168 St Georges Terrace Perth, WA, 6000
Telephone: +61 8 6364 7687
Website: www.waterforfood.wa.gov.au

REGION/LOCATION

Kimberley

INVESTMENT OPPORTUNITY

This component of the *Water for Food* project will investigate and confirm the presence, reliability and availability of water in the West Canning Basin - Sandfire, one of the largest groundwater systems in the State. It is located in the West Kimberley.

With the area having significant potential for higher value agricultural production and substantial irrigation expansion, the project will also examine land tenure options to allow for large scale third party investment.

CAPITAL INVESTMENT

To be confirmed.

TIMEFRAME

Medium to long term.

SUB PROJECT NAME**Fitzroy Valley Project**

PROPONENT/LEAD AGENT

Department of Water

CONTACT DETAILS

Department of Water
Project Director, Water for Food
168 St Georges Terrace Perth, WA, 6000
Telephone: +61 8 6364 7687
Website: www.waterforfood.wa.gov.au

REGION/LOCATION

Kimberley

DESCRIPTION

The Fitzroy Valley landscape investigation aims to confirm groundwater availability and increase confidence among pastoral station owners wanting to diversify their operations into irrigated agriculture, based on sustainable local-scale mosaic developments.

The project will also assist Aboriginal corporations to develop intensive grazing opportunities to help boost economic advancement and job creation.

While much is known about water availability in the Fitzroy Valley, more work is required to define the potential to draw from groundwater resources in the region in a way that is sustainable.

The West Kimberley groundwater investigation builds on existing Department of Water research in the Fitzroy Valley between Willare and Fitzroy Crossing and will help consolidate our knowledge of groundwater resources and their links to environmental, social and cultural values of the river.

The Department of Water is working closely with a number of external research projects in the Fitzroy Valley including the National Environmental Science Program, the Northern Australia Environmental Resources Hub and the Northern Australia Water Resource Assessment, West Kimberley. These initiatives bring together leading scientists to further our knowledge of the regions groundwater resources and dependencies.

Preliminary research has identified the regional Canning Basin aquifers as offering the greatest opportunities for mosaic scale groundwater development in the lower Fitzroy River Valley, specifically the combined Poole Sandstone and Grant Group aquifers.

CAPITAL INVESTMENT

To be confirmed.

TIMEFRAME

Medium to long term.

PROJECT NAME**Sunny Side Farm Horticultural Project**

PROPONENT/LEAD AGENT

Sunny Side Farm (Robert Parsons - owner)
Agent: Ray White (Derby)
Sarah Jollow, Project Manager
Telephone: +61 431 236 873
Email: Sarah.Jollow@raywhite.com

CAPITAL INVESTMENT

\$1.8 million (purchase price).

TIMEFRAME

Short term (immediate).

REGION/LOCATION

Derby, Kimberley

DESCRIPTION

89 ha of which approximately half is cleared and irrigated (including 6.2 ha centre pivot irrigator). Rich red pindan soil. Sub-artesian bore, currently licensed to take 363,000 kilolitres (kl) of water per annum with potential for further allocation. Consistent water availability year round. Current production includes turf and hay (other use authorised including pasture production). Past production included watermelons and vegetables. Current infrastructure includes two storage sheds, cool room, ablution block, comfortable three bedroom home with pool.

PROJECT NAME**Halls Creek: Flora Valley**

PROPONENT/LEAD AGENT

Shire of Halls Creek

CONTACT DETAILS

Shire of Halls Creek
Economic Development Manager
Matt Hobson
Telephone: +61 08 9168 6007
Mobile: +61 408 763 982
Email: edm@hcshire.wa.gov.au
Website: www.halls creek.wa.gov.au
Postal: PO Box 21, Halls Creek Western Australia 6770

REGION/LOCATION

Halls Creek, Kimberley

DESCRIPTION

The development of the project is in its preliminary stages. Investors need to carry out their own investment analysis.

Water catchment or pumping and pipeline infrastructure from Lake Argyle, centre pivots, plant and machinery, other construction materials. Irrigation of 10,000 ha of crops (options including cotton, sugar cane, oilseeds, grains, legumes).

Examples of production volumes if entire area planted to one crop:

- Maize: 120,000 tonnes;
- Soya beans: 40,000 tonnes;
- Cotton: 40,000 tonnes; and
- Sugar cane: 1.2 Mt.

Infrastructure requirements include:

- Water catchment or pumping and pipeline infrastructure from Lake Argyle;
- Centre pivots;
- Plant and machinery;
- Other construction materials;
- Equipment; and
- Storage.

CAPITAL INVESTMENT

Up to \$350 million for the dam and up to \$270 million for land development and irrigation infrastructure.

TIMEFRAME

Medium to long term (Four to eight years).

PROJECT NAME**Halls Creek: Margaret River Dam**

PROPONENT/LEAD AGENT

Shire of Halls Creek

CONTACT DETAILS

Shire of Halls Creek
Economic Development Manager
Matt Hobson
Telephone: +61 08 9168 6007
Mobile: +61 408 763 982
Email: edm@hcshire.wa.gov.au
Website: www.halls creek.wa.gov.au
Postal: PO Box 21, Halls Creek Western Australia 6770

REGION/LOCATION

Kimberley

DESCRIPTION

The development of the project is preliminary. Investors need to carry out own investment analysis.

Multi-purpose dam (agriculture, power generation, aquaculture, recreation). Agriculture production assuming 10,000 ha arable area:

- Maize: 120,000 tonnes;
- Soya beans: 40,000 tonnes;
- Cotton: 40,000 tonnes; and
- Sugar cane: 1.2 Mt.

Infrastructure requirements include:

- Centre pivots;
- Plant and machinery;
- Other construction materials;
- Equipment; and
- Storage.

CAPITAL INVESTMENT

\$200 million - \$300 million for dam and other infrastructure plus \$150 million - \$250 million for land development and irrigation system.

TIMEFRAME

Medium to long term (Four to eight years).

PROJECT NAME**Pilbara Hinterland Agricultural Development Initiative (PHADI)**

PROPONENT/LEAD AGENT

Department of Agriculture and Food, Western Australia

CONTACT DETAILS

Department of Agriculture and Food, Western Australia
Telephone: +61 8 9368 3361

REGION/LOCATION

Pilbara

GOVERNMENT INVESTMENT AND SUPPORT

Irrigated agriculture has the potential to expand the economic base of the Pilbara and attract major capital investment. Department of Agriculture and Food, Western Australia is planning for the future of irrigated agriculture development in the Pilbara through the \$12.5 million PHADI funded by Royalties for Regions over four years.

PHADI will assess the potential of irrigated agriculture in the Pilbara and will deliver high-impact research outcomes to assist future development decisions by government and industry. PHADI will investigate and share key information on agronomics, land tenure, supply chain and markets, economic viability, cultural and environmental areas of significance, and stakeholder aspirations. Project findings will be packaged in a suite of online user-friendly, information products, and extended to our clients through project consultation, updates and events.

There are four water sources under investigation:

- Groundwater;
- Mine dewater surplus;
- Surface water; and
- Dams and Managed Aquifer Recharge.

Irrigated crops may be used for fodder, food and fuel production, and have the potential to bolster the existing pastoral industry and complement mining operations. One pilot project has been established at Woodie Woodie mine site on Warrawagine station in the east Pilbara, operating a 38 ha irrigation trial pivot using surplus dewater. Lucerne, rhodes grass, oats, sorghum and maize are the first species to be trialled, with a range of other grain and fodder species recently approved for inclusion in the experimental trials.

FUTURE INVESTMENT OPPORTUNITY

The potential to irrigate up to 10,000 ha of land in the areas will create significant investment and will add significantly to the quantity of marketable produce in the Pilbara. Specific irrigation projects in the future in the Pilbara will include irrigation sourced from mine dewatering; groundwater and surface water:

- Agricultural production;
- Agri-processing; and
- Support services.

CAPITAL COSTS

\$30 million dependent on project scale.

TIMEFRAME

Research and identification of water sources is over a three year period 2014-17. An interim report on opportunities will be available in December 2016.

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate the Land Tenure Pathway for irrigated agriculture projects, administered by the Department of Lands. This includes negotiations concerning native title; pastoral leases; agreements with mining companies if applicable and water licences.



PROJECT NAME**Gascoyne Food Bowl Initiative**

PROPONENT/LEAD AGENT

Department of Agriculture and Food, Western Australia

CONTACT DETAILS

Department of Agriculture and Food, Western Australia
Project Manager – Gascoyne Food Bowl
Telephone: +61 8 9956 3325
Website: www.agric.wa.gov.au

REGION/LOCATION

Gascoyne

DESCRIPTION

The Gascoyne region has a well-established and diverse horticulture industry. The industry benefits from good soil types, good climate, seasonal advantage, minimal pests and diseases, the use of micro-irrigation technology and industry driven development.

Produce is predominantly grown in the Carnarvon Horticulture District. Around 1,500 ha of land is under cultivation producing a wide variety of fruit and vegetables. Major crops include bananas, table grapes, tomatoes, capsicums, cucurbits, avocados and mangoes.

The Gascoyne Food Bowl Initiative was established in 2012 to increase horticultural production in the area by an additional 400 ha, matched with borefield development. Royalties for Regions has allocated \$25 million for the Gascoyne Food Bowl. This is seen as a key driver for the Carnarvon horticultural industry to increase opportunities for existing and new producers to market their produce both domestically and internationally.

Project components are:

- Sourcing and delivery of an additional 4 gigalitres of water;
- Identification and release to market 400 ha suitable; and
- Electricity will be supplied via design and construction of a high voltage (22,000 volts) open aerial power line, the combined length of the northern bore-fields.

Originally growing bananas and vegetables, production has expanded to include many different tropical and temperate crops. In 2012 the value of production exceeded \$103 million.

Infrastructure requirements include:

- Irrigation infrastructure;
- Plant and machinery;
- Other construction materials;
- Equipment; and
- Storage.

CAPITAL INVESTMENT

\$30 million to \$40 million.

TIMEFRAME

Short term (One to two years).

The Gascoyne Food Bowl Initiative was established in 2012 to increase horticultural production in the area by an additional 400 ha

PROJECT NAME**Middle Gascoyne Water Investigations**

PROPONENT/LEAD AGENT

Department of Water

CONTACT DETAILS

Department of Water

Telephone: +61 8 6364 7600

Website: <http://www.water.wa.gov.au/contact-us>

REGION/LOCATION

Carnarvon, Gascoyne

INVESTMENT OPPORTUNITY

The \$2.6 million Middle Gascoyne Water Investigation project will define the scale and quality of the alluvial aquifers between Rocky Pool and the Kennedy Ranges 40 to 130 kms upstream of the Carnarvon horticultural district in the Gascoyne.

While water security for the Carnarvon horticultural precinct remains a priority, this project aims to define potential new upstream water sources that may ultimately allow diversification and expansion of the region's economy.

The aquifer systems and the quality and quantity of groundwater beyond Rocky Pool are not fully understood and this work will help determine where the Gascoyne region can ultimately head towards an agriculture-based economy.

The investigation will include stakeholder involvement to develop an agreed strategic direction for the Carnarvon horticultural industry, consistent with the draft Gascoyne Regional Investment Blueprint.

A critical component of the Middle Gascoyne Water Investigation project is to establish a pathway for pastoralists to convert parts of their holdings to more flexible land-use tenure, rather than be restricted to grazing only.

It is hoped the combination of tenure change and potential new groundwater may provide the pastoral sector with the opportunity to link with third-party investment capital, whether it be for the establishment of feed-on facilities or in high-value cropping.

The area has the potential to increase the existing 1,200 ha horticultural area to 3,600 ha, with the value of annual production rising from \$80 million to \$230 million and the pastoral sector to increase value to almost double to \$60 million per annum.

CAPITAL INVESTMENT

Indicative: \$24 million+.

TIMEFRAME

Medium to long term.

PROJECT NAME**Midlands Groundwater and Land Assessment Project**

PROPONENT/LEAD AGENT

Department of Water

CONTACT DETAILS

Department of Water

Water for Food – Operations Manager South

Telephone: +61 8 6364 7440

Website: <http://www.water.wa.gov.au/contact-us>

REGION/LOCATION

Mid West

INVESTMENT OPPORTUNITY

The \$4.7 million Midlands groundwater and land assessment project is investigating groundwater availability, land capability and crop suitability in the Midlands area between Gingin and Dongara. This region is one of the most economically promising irrigation zones in Western Australia.

Large irrigators want to increase production over the next five years at levels up to 300% but groundwater in their local sub-areas has been largely allocated, meaning future horticultural expansion will lie outside their existing horticultural footprint.

This project aims to identify one or more 2,000 to 3,000 ha area/s suitable for intensive irrigated horticulture within a broad 500,000 ha envelope north of the Gingin irrigation district, encompassing the Moora-Badgingarra-Dongara area. The Irwin area near Dongara, and the Dinner Hill area to the east of Badgingarra and north of Dandaragan, has been identified for further investigation as irrigated agriculture hotspots. These two areas have been carefully selected with input from a community reference group.

The community reference group membership includes Vegetables Western Australia, the Mid West Development Commission, the Wheatbelt Development Commission, the West Midlands Group, Irrigation Australia, Northern Agricultural Catchment Council, Shire of Carnamah, Shire of Dandaragan, Agricultural Produce Commission, Department of Agriculture and Food, Western Australia and the Department of Water.

In addition to the Irwin and Dinner Hill focus area investigations, a comprehensive regional information package is being developed, using the innovative high quality agricultural land analysis developed by the Department of Agriculture and Food. It will contain research and analysis on the broader Midlands water resources, soil types, crop suitability and local infrastructure, and will be made available to the community, local growers and potential investors. It is expected that the information package will be completed by 2018, and will support and inform local agricultural investment decisions.

CAPITAL INVESTMENT

Up to \$30 million, dependent on amount of water available for irrigation.

TIMEFRAME

Medium to long term.

Although water supplies will not be adequate to irrigate the entire area, this project will initially identify one or more 2,000-3,000 ha precincts of suitable land for intensive irrigated horticulture.

PROJECT NAME**Jurien Bay Groundwater Allocation Plan**

PROPONENT/LEAD AGENT

Department of Water

CONTACT DETAILS

Department of Water

Regional Manager Mid West and Gascoyne

Telephone: +61 8 9941 6100

Website: <http://www.water.wa.gov.au/contact-us>

REGION/LOCATION

Mid West

DESCRIPTION

The plan will be used to manage the allocation of groundwater for a variety of industries including agriculture. The Jurien groundwater area contains eight sedimentary aquifer systems and fractured rock aquifer systems. Although groundwater is available throughout the plan area, complex hydrogeology, naturally variable water quality and the distribution of each aquifer may restrict possibilities for extraction in particular cases. Future groundwater use in the Jurien groundwater area will be constrained by the quality and quantity of groundwater available for licensing. The amount of unallocated water per annum is currently 57.5 gigalitres per annum. Water available for irrigation varies locally due to variations in yield, water quality and depth.

Infrastructure requirements may include:

- Irrigation infrastructure;
- Plant and machinery;
- Other construction materials;
- Equipment; and
- Storage.

CAPITAL INVESTMENT

Up to \$1.45 billion, dependent on availability of water for irrigation.

TIMEFRAME

Short, medium to long term (One to seven years).



Although groundwater is available throughout the plan area, complex hydrogeology, naturally variable water quality and the distribution of each aquifer may restrict possibilities for extraction in particular cases.

PROJECT NAME**Arrowsmith Groundwater Allocation Plan**

PROPONENT/LEAD AGENT

Department of Water

CONTACT DETAILS

Regional Manager Mid West and Gascoyne
Telephone: +61 8 9941 6100
Website: <http://www.water.wa.gov.au/contact-us>

REGION/LOCATION

Mid West and Gascoyne

DESCRIPTION

The plan will be used to manage the allocation of groundwater for a variety of industries including agriculture. The Jurien groundwater area contains eight sedimentary aquifer systems and fractured rock aquifer systems. Although groundwater is available throughout the plan area, complex hydrogeology, naturally variable water quality and the distribution of each aquifer may restrict possibilities for extraction in particular cases. Future groundwater use in the Jurien groundwater area will be constrained by the quality and quantity of groundwater available for licensing. The amount of unallocated water per annum is 84.1 gigalitres per annum. Water available for irrigation varies locally due to variations in yield, water quality and depth.

Infrastructure requirements may include:

- Irrigation infrastructure;
- Plant and machinery;
- Other construction materials;
- Equipment; and
- Storage.

CAPITAL INVESTMENT

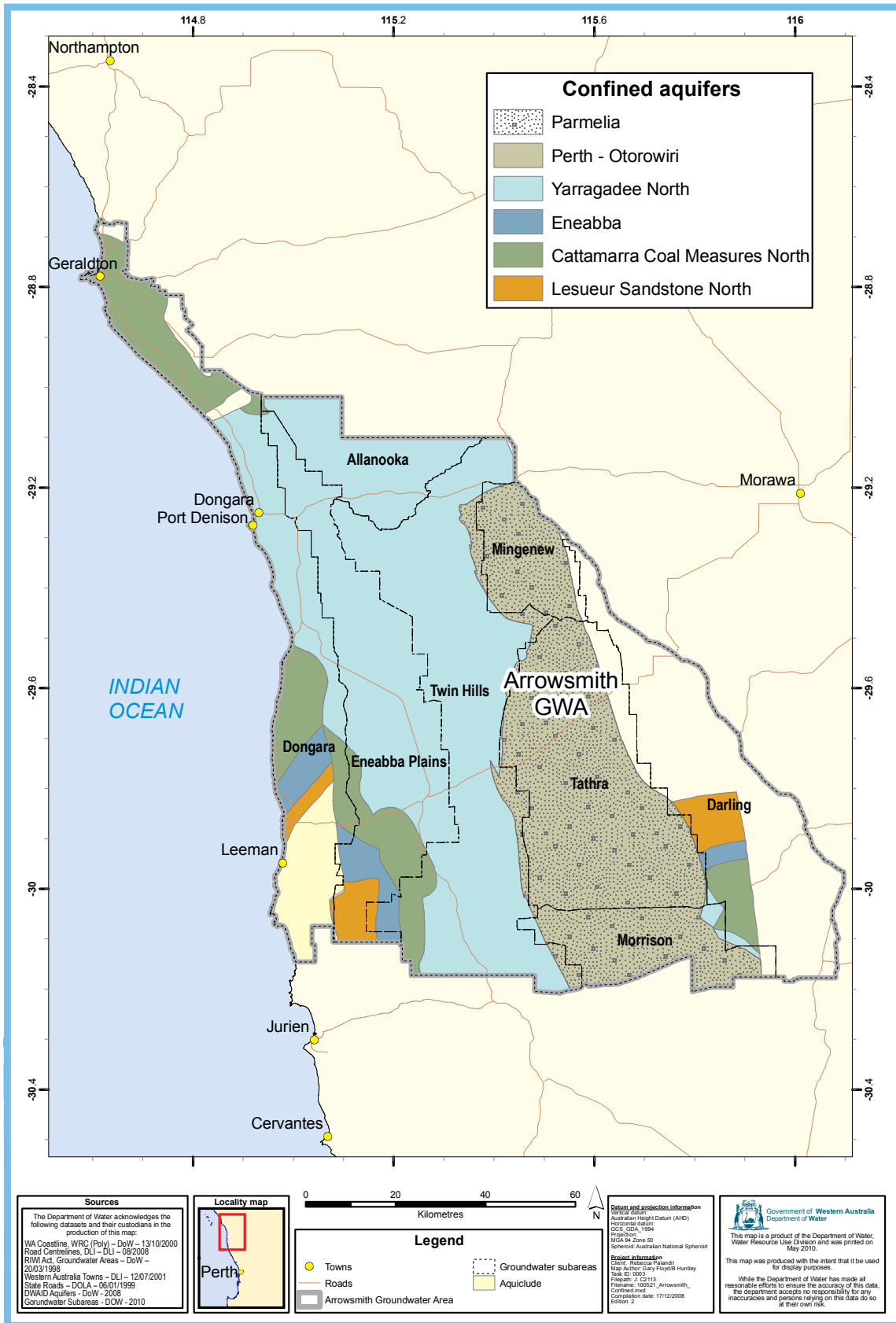
Up to \$2.27 billion, dependent on availability of water for irrigation.

TIMEFRAME

Short, medium to long term (One to seven years).

The amount of unallocated water per annum is 84.1 gigalitres per annum. Water available for irrigation varies locally due to variations in yield, water quality and depth.

Figure 7: Arrowsmith Groundwater Area



B. AGRICULTURE PROCESSING INVESTMENT OPPORTUNITIES

A selection of food processing related project opportunities are presented below:

PROJECT NAME

Multi – Food Processing Plant

PROPONENT/LEAD AGENT

Gascoyne Food Council

CONTACT DETAILS

Gascoyne Food Council
Executive Officer
Doriana Mangili
Telephone: +61 400 867 632
Email: admin@gascoynefood.com.au
Website: <http://www.gascoynefood.com.au/contacts/>

REGION/LOCATION

Gascoyne

DESCRIPTION

Pilot project to establish a Multi-Food Processing Plant in Carnarvon to value add to the horticultural and fisheries niche markets. A Feasibility Study delivered by GHD consultants, September 2015 outlined the project's potential risks and benefits.

Processing options

Local produce most suitable for the following broad processing options:

- Value-adding to fresh produce (convenience packs of peeled, sliced, diced products);
- Pulping and juicing;
- Drying; and
- Extended shelf-life processing (including soup, sauce, paste, concentrate or powder).

Context

Australian fruit and vegetable processing is a difficult operating environment, characterised by low margins caused by a number of factors including:

- High production costs (labour and inputs);
- Competition from imported products; and
- Difficulty catering to changing consumer tastes and preferences.

Benefits

A multi-food processing approach offers a number of benefits over conventional single process or single commodity processing, including:

- Sharing of plant and resources;
- Ability to produce products incorporating multiple commodities;
- Catering for seasonal produce;
- Diversified income; and
- Ability to divert resources.

Risks

However, there are also some key challenges to the multi-food processing approach including:

- Additional cost and complexity; and
- Food safety.

The Feasibility Report concludes that processing margins are very tight. A facility producing pulp and value adding fresh product is the most viable option. Additional processing lines for drying and extended shelf-life processing are not considered viable. The recommended course of investment implementation is upgrade of the Babbage Island facility, rather than incurring the cost of establishing a greenfield site:

- Babbage Island facility represents the most viable option for establishing a food processing presence in the region. The existing facility offers an excellent opportunity to establish a pilot fruit and vegetable processing plant which would assist the operator refine their processes, products, target markets and branding;
- The operation could easily be scaled up within the existing Babbage Island site, or through the establishment of a new green field plant in the region. An established process, product, market and brand will serve to attract further capital investment for potential expansion plans; and
- Pursue niche domestic market opportunities based on competitive advantage of food safety, convenience and quality. (i) Target markets include higher-end domestic markets e.g. food service (ii) Potential export markets where food safety will attract substantial premiums (e.g. baby food to China).

CAPITAL INVESTMENT

\$4.8 million.

TIMEFRAME

Short term (One to two years).



PROJECT NAME**Ecana Organic and Natural**

PROPONENT/LEAD AGENT

Ecana Organic and Natural

CONTACT DETAILS

Co-Founder

David Buttsworth

Telephone: +61 433 835 226

Telephone: + 61 1300 858 836

Email: David@ecana.international

Website: www.ecana.international

REGION/LOCATION

Carnarvon, Gascoyne

INVESTMENT OPPORTUNITY

The creative and innovative industries are an increasingly important component of the business sector. Working in parallel with the Department of Agriculture and Food, Royalties for Regions, taking into account their TARGET MARKET OPPORTUNITIES IN ASIA FOR WESTERN AUSTRALIAN PREMIUM PRODUCTS FINAL REPORT; v1.0c March, 2016 coupled with the Gascoyne Horticultural and Investment Portfolio written by the Gascoyne Develop Commission, Ecana Organic and Natural have reviewed these two reports and based on their content, bought together this proposal for a highly profitable multi purpose food processing plant for both immediate and long term supply growth (between now and 2050 in the Gascoyne) and long term global sales growth for the supply of products for domestic consumption and for export to Asia, China, Middle east and India.

Bankable and seeking finance to establish a multi purpose 'processing facility' in Carnarvon. The opportunity to provide value added verticals to the fruit, vegetable and meat industries. The manufacturing plant with little changes other than the processing equipment will allow the processing of fruit and vegetables into innovative healthy products for immediate sale domestically and internationally. Producing Beef Jerky is also possible with the adjusting of the packaging equipment and the plant also has the request from a local seafood company to value add their produce in the same facility.

Local produce can be farmed and growers produce exactly the quantity of produce required on a seasonal basis with the potential to add an additional crop specifically for the Multi processing facilities produce requirements.

Finally, Ecana Organic and Natural will use the processing facility to produce the 'Ecana extract concentrate', a versatile, all-natural, 100% biodegradable and environment-friendly plant based extract used in multi-purpose antibacterial and cleaning products for the consumer product market, and as an effective and safe water treatment for the industrial market.

The Ecana Organic and Natural consumer products are uniquely Australian, natural, safe for adults, children, pets, waterways and the environment. The end consumer and industrial markets are

shifting towards natural and eco-friendly products that perform as well as existing products, but without a negative impact on the environment. Each product is unique and sought after from an end user perspective.

The Ecana extract has been confirmed in several laboratory tests done by independent and esteemed chemists and microbiology laboratories.

The opportunity involves developing a manufacturing plant on a pre-existing site, and producing the natural plant based extract utilising local resources, raw materials and labour sourced from the Gascoyne region. Targeting domestic residential, commercial, mining and agriculture markets as well as export to similar markets in south east Asia, USA, New Zealand, South Africa, China and Europe. There is opportunity to take an established eco-conscious consumer brand and develop a tailored brand line(s) for specific international target markets, notably China which is seeking the best and safest consumable products the world has to offer.

The development phase would require some 10 staff, and up to 50 when at full production. The project foresees 100% debt repayment over five years once in full production plus return on interest of 200% in subsequent five years. Businesses involved in this sector are currently under-represented in the north west. Whilst many organisations and small businesses possess skills in their particular discipline, they often require development in general business operations. The proponent's brokers can work with and for these organisations and individuals to assist them in their own development and, ultimately, sustainability.

CAPITAL COST

\$3 million – with potential to be matched "dollar for dollar" with government funds.

TIMEFRAME

Short to medium term.

LEGISLATIVE REQUIREMENTS

The Shire of Carnarvon has given pre-approval for the use of two proposed sites for the plant.

The end consumer and industrial markets are shifting towards natural and eco-friendly products that perform as well as existing products, but without a negative impact on the environmental.



C. BIO-FUELS

A selection of bio-energy related project opportunities are presented below:

PROJECT NAME

Mid West Agriculture/Bio-energy Project

PROPONENT/LEAD AGENT

Energy Farmers Australia Pty Ltd

CONTACT DETAILS

Energy Farmers Australia Pty Ltd

Co-founder/Director

Tom Vogan

Telephone: +61 418 735 336

Website: <http://www.energyfarmers.com.au/contact/>

REGION/LOCATION

Mid West

DESCRIPTION

Pyrolysis facility producing bioenergy and biochar from locally grown crop residue. Pyrolysis is the thermal conversion of organic substances such as wheat straw to energy in an oxygen free environment. A by-product of the process is biochar, a charcoal like material used for soil amelioration, nutrient replacement, carbon sequestration and increasingly used in the livestock sector. Currently, a majority of the crop residue produced in the Mid West and other farming areas is being

burnt for weed control. This project will use this valuable waste product to create value. Our vision is farmers supplying crop residue to local pyrolysis plants producing energy and biochar, while building capacity to supply larger, regionally based biofuels projects.

Inputs include:

- Structures and pre-manufactured materials;
- Pyrolysis technology;
- Crop residue; and
- Residue harvesting technology.

CAPITAL INVESTMENT

\$20 million per plant. Multiple Region/Locations possible.

TIMEFRAME

Short to medium term (One to three years).



PROJECT NAME

Crop to Kilowatt Project

PROPONENT/LEAD AGENT

C2k Pty Ltd in association with AgGrow Energy Resources Pty Ltd

CONTACT DETAILS

C2k Pty Ltd in association with AgGrow Energy Resources Pty Ltd
Craig Palmer

Telephone: +61 437 156 301

Email: info@aggrowgroup.com.au

Email: jcpalmer@bigpond.net.au

Website: <http://www.aggrowgroup.com.au/>

REGION/LOCATION

Pilbara

DESCRIPTION

Production of Renewable Natural Gas (RNG) to displace 10 million litres of diesel at Woodie Woodie mine, using mine dewatering to irrigate a Sorghum energy crop as a biomass feedstock for conversion into compressed natural gas via anaerobic digestion technology.

AgGrow Energy Resources Pty Ltd is the project developer of the Crop to Kilowatt Project in the Pilbara that is a unique biomass to RNG project. This project provides the platform for the innovative demonstration of commercial-scale renewable energy technology in a remote, off-grid location, which currently relies solely on diesel for its energy needs.

The Crop to Kilowatt Project is located near to the Woodie Woodie Mine owned by Consolidated Minerals Ltd. The Woodie Woodie mine currently pumps more than 22 gigalitre per annum of freshwater into a nearby creek that is wasted. This project aims to utilise this unused water resource and 175 ha of land on a diversification area leased from the adjacent cattle station, secured by the Western Australia government, to produce 105,000 tonnes per annum of energy crop (sorghum) for a biogas energy production system. The first phase of this project is expected to replace 10 million litres of diesel fuel, which will have enormous environment benefits. The support of Phase One of this project will lead to the replacement of 30 million litres of

diesel in Phase Two of the project. Phase One is the pathway to commercialisation of this innovative technology and a foundation for Phase Two that is commercial in its own right.

The production of a renewable, baseload source of energy at the point of consumption in a sustainable, self-sufficient way will be achieved. Scalability and replicability of project technology and application throughout the Pilbara and in remote locations across Australia is possible. Project technology platform and biomass feedstock production has been independently peer reviewed at the ASEAN level.

Inclusive engagement already in place with the Njama People; training and employment opportunities for the Njama community such as jobs in crop protection unit, energy cropping techniques and construction. \$4 million Agricultural Research Project under the Pilbara Hinterland Agricultural Development Initiative at Woodie Woodie.

- 175 ha of land under centre pivot irrigation and infrastructure;
 - 28 day mesophilic anaerobic digestion process using five 5,950 m³ glass-fused steel primary biodigesters;
 - 1,200 m³ capacity biomethane upgrade plant;
 - Two 600 kilowatts biogas cogeneration units providing power for the anaerobic digestion plant and associated systems; and
 - Two Microbox compression systems, and 33 storage modules including unloading ramps.
-

CAPITAL INVESTMENT

Equity Investment - \$5,200,000.

ARENA Grant - \$16,096,592.

Commercial Debt - \$20,120,740.

Investors IRR 15.7%, debt payback over 10 years.

TIMEFRAME

Short term: Full production of 10 million litres diesel displacement.

Medium term: Full production of 30 million litres diesel displacement.

The production of a renewable, baseload source of energy at the point of consumption in a sustainable, self-sufficient way will be achieved. Scalability and replicability of project technology and application throughout the Pilbara and in remote locations across Australia is possible.

D. BEEF

ASSETS

Australia is one of the world's largest producers of cattle. The farm gate gross value of cattle and calf production in Australia is estimated at \$8.1 billion per annum. The Australian beef industry is vast and extremely diverse covering 48% of Australia's landmass and comprising more than 40 different cattle breeds. The off-farm meat value of Australia's beef industry is \$11.9 billion. Australia is the world's largest exporter of beef. In 2011-12, Australia exported \$4.7 billion worth of beef (65% of production) to more than 100 countries. Australian live cattle exports are valued at over \$650 million.

The Western Australian beef herd consists of approximately two million head, half of which are free range on extensive pastoral stations in the northern rangelands. The gross value of beef production in Western Australia is about \$520 million. The State exports some 250,000 to 300,000 live cattle valued at \$200 million in addition to 100,000 tonnes of boxed beef products worth about \$100 million per annum.

The rangelands (or pastoral) industry is the Kimberley region's oldest economic undertaking and it is growing in the Pilbara with strong participation of Aboriginal people who either have a family history of employment on cattle stations or own and live on pastoral leases.

Pastoral leases cover one-third of the Pilbara and, accordingly, the industry is reliant on road transport for transport of livestock to abattoirs and ports. Historically, up to half of the road transport of livestock each year is to the Port Hedland Port. In the Pilbara, agriculture production in the region is valued at \$70 million consisting mainly of livestock production and exports (cattle and calves).

Western Australia has 12 privately owned beef processing plants including five with accreditation for international export. Only one plant currently has Chinese accreditation, however, others are in the process of attaining Chinese accreditation. The three largest processors with multiple export market accreditations are located in the south west of Western Australia. In 2014, 413,000 cattle were slaughtered in Western Australia abattoirs. In the past, in excess of 500,000 cattle have been processed in one year.

Private investment in an abattoir in the West Kimberley (over \$30 million) will start production at the end of 2015 and will support diversification and the revival of leases with poorer quality beef. Livingstone beef abattoir, located 50 km south of Darwin, also provides some Western Australia producers in the north an alternative to live export.

MARKETS

Global demand for beef will continue to increase. The United States Department of Agriculture (USDA) estimates for the period 2015-24 indicate that beef imports by the major beef importing countries are projected to increase by 2.6 Mt, reaching 10.1 Mt in 2024. World meat consumption is projected to increase about 1.6% per annum during 2015-24, driven primarily by rising incomes and population in developing countries, along with increased urbanisation and diet diversification.

Australian international markets are growing fast. The strength of markets is shown by:

- The promising market outlook for beef has resulted in the Australian beef export record being broken for three consecutive years;

- Beef shipments for 2014 totalled 1.29 Mt; a staggering 17% above the previous high recorded in 2013;
- Shipments to the major markets have risen strongly;
- Australia has gone from close to the bottom of the 'league table' rankings in world cattle prices, to the top (based on a regular pricing summary conducted in South America's World Beef Report: November 2015);
- Beef shipment to the USA finished the year at 397,890 tonnes, up 87% from the previous year, with exporters capitalising on the high beef prices over the course of the year;
- Australia was the largest source of imported beef in the USA in 2014;
- Other major markets have trended higher including Japan, South Korea, the European Union and Indonesia; and
- Australian producers have confidence in the market over the long term due to anticipated tight Australian beef supplies, combined with the weaker Australian dollar and strong export demand.

South East Asia represents 58% of Australia's live cattle exports and there is strong potential for growth in "emerging" markets where Australia is an established partner, such as China, where Australia supplies nearly 90% of China's restricted imports, which is less than 10% of Australia's national exports. Agreements recently established between Western Australian and Chinese interests are set to expand opportunities for live cattle export trade, which the Kimberley and the Pilbara are well placed to develop further.

The main export markets for Western Australia live cattle in 2013-14 were Indonesia, Israel, Malaysia and Vietnam. Western Australia has one of the highest Meat Standards Australia grading system compliance rates (92.6% in 2013-14). There is a growing market for high quality products (both grain-fed and grass-fed) and there is a niche and growing, certified organic beef industry. 66% of the beef processed in Western Australia is consumed domestically and the remaining portion is exported to more than 35 countries throughout the world.



Cattle exported live from Western Australia are produced to meet strict animal welfare requirements, customer specifications and animal health protocols. An integrated supply chain involving cattle bred in the rangelands or pastoral areas, linked to production and final processing in an abattoir offers a proven value chain. This supply chain approach ensures continuity of supply and specified product quality for end consumers.

The northern Western Australia regions produce high quality beef products suitable for live export or restaurant and food services. Live export is the main market for most northern pastoral beef enterprises and the majority of cattle from the north are exported through the ports of Broome and Wyndham, with approximately 142,000 exported in 2013-14. The cattle exported meet a variety of specifications including light young bulls, steers and heifers (less than 350 kg), slaughter-ready cattle (less than 450 kg) and high quality breeding animals for beef and dairy.

Positive developments in the Western Australia beef industry as a whole, and in particular the regions in the north provide investors with a range of options and levels of involvement, from cattle production to integrated supply chains for both live cattle and processed beef products. Value can be added through backgrounding (i.e. through the Mid West) and high quality feedlots (to optimise Meat Standards Australia high quality grades) and processed to buyer's specification in modern, multi-market

accredited abattoirs. Investors in an integrated supply chain concept can receive cattle from the wider northern beef sector, including the Northern Territory, thus multiplying the potential production through the system.

There are major investment opportunities in the northern Western Australia regions. In the Kimberley, for example many pastoral leases (at least 30) are currently well-beneath peak production capacity. There is an opportunity to improve through better land management, breeding genetics, better fodder and improved livestock performance.

Tenure reform in the rangelands may progressively open new options to expand and diversify rangelands industries for a wider range of uses and operations, adding to long term economic resilience and creating a platform for further growth.

Other specific opportunities exist to:

- Develop the feeder cattle trade with Indonesia particularly through access to feedlots and co-investment;
- Develop meat-processing capacity;
- Broaden access to processing stream opportunities through vertical integration and security of supply;
- Develop irrigated agriculture across the Kimberley and the Pilbara in particular to increase the regional production of pasture and fodder crops;
- Increase the stocking levels of Aboriginal pastoral properties; and
- Finishing cattle in areas such as the

Mid West for either direct processing via existing abattoir operations or live export from Geraldton port into the export marketplace.

In addition to the currently operating abattoirs, there are a number of plants that are not in operation. These plants have the potential to be brought into service through purchase or new joint ventures. Land is also available to develop green-field site abattoirs.

The Department of Agriculture and Food, Western Australia will assist investors to establish operations in the State and provide access to government services to assist with minimising animal health risks. All foreign investors and their advisers need to be familiar with the Australian Government Foreign Investment Review Board (FIRB) policies. All foreign government investors must obtain foreign investment approval before acquiring any interest in rural land, regardless of the value. This is consistent with the Federal Australian Government's longstanding practice. From 1 March 2015, privately-owned foreign investors must get prior approval for a proposed acquisition of an interest in rural land where the cumulative value of rural land that the foreign person (and any associates) already holds exceeds, or immediately following the proposed acquisition is likely to exceed, A\$15 million (FIRB, 2015).

A selection of beef industry related project opportunities are presented below:

PROJECT NAME

Northern Beef Futures Project

PROPONENT/LEAD AGENT

Department of Agriculture and Food, Western Australia

CONTACT DETAILS

Project Manager

Telephone: +61 8 9780 6100

Northern Beef Development Centre

Broome Operations Manager

Telephone: +61 8 9194 1488

Postal: 12 Gregory Street, Broome Western Australia 6275

REGION/LOCATION

Kimberley and Pilbara

GOVERNMENT INVESTMENT AND SUPPORT

Northern Beef Futures (NBF) is a four year \$15 million project, funded by the State Government's Royalties for Regions programme, to transform Western Australia's northern beef industry through market diversity and improved business models and integrated export supply chains.

NBF is an export supply chain focused, market-driven project to enable the Western Australia beef industry to boost capabilities, build value and strengthen relationships within new and existing supply chains and diversify and align products to suit new and expanding markets identified by the project.

As an example, research is underway to identify opportunities for new facilities to meet the projected growth in the beef export market such as feedlots, holding yards, wash down facilities and possibly a palletisation plant in close proximity to the Port in Port Hedland with an estimated cost of about \$2.5 million. An Expression of Interest process is likely to be used.

NBF commenced in August 2014 with the project delivering seven integrated components to:

- Increase the value of production from the Pilbara and Kimberley beef industry;
- Reduce reliance on current markets, through the establishment of alternate, economically viable export markets for beef and live cattle;
- Boost employment in the northern cattle industry through increasing profitability; and
- Provide greater opportunities for regional and Indigenous participation in the northern beef industry.

Under NBF's investment and capital component, the project is identifying and establishing new business models that are integrated and aligned with new markets and supply chains to attract new investment to grow the beef industry in Western Australia.

The Northern Beef Infrastructure Audit final report of April 2016 informs on the specific needs, scope of work undertaken and indicative costs of the initiatives and projects identified.

NBF is working to attract domestic and international investment into the Western Australia beef industry and convert investor interest into integrated investment that has a market pull effect from ASEAN and north Asian markets to benefit the Western Australia beef industry.

FUTURE INVESTMENT OPPORTUNITY

- Infrastructure;
- Integrated export supply chains;
- Bilateral joint venture investment; and
- Livestock and genetics.

CAPITAL COSTS

Project dependent.

TIMEFRAME

The NBF project is well underway and major investors are already actively seeking transformational and integrated investment opportunities.

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate the State Land Tenure Pathways for irrigated agriculture projects, administered by the Department of Lands and applicable Local, State and Federal government regulations. This includes negotiations concerning native title; pastoral leases; agreements with mining companies if applicable; and water licences.

PROJECT NAME**Halls Creek Horse and Donkey Abattoir**

PROPONENT/LEAD AGENT

Shire of Halls Creek

CONTACT DETAILS

Shire of Halls Creek
Economic Development Manager
Matt Hobson
Telephone: +61 8 9168 6007
Mobile: +61 408 763 982
Email: edm@hcshire.wa.gov.au
Website: www.hallscreek.wa.gov.au
Postal: PO Box 21, Halls Creek Western Australia 6770

REGION/LOCATION

Halls Creek, Kimberley

INVESTMENT OPPORTUNITY

The development of the project is preliminary. Investors need to carry out own investment analysis. Opportunity includes:

- Structures and pre-manufactured materials;
- Abattoir and related technology;
- Other construction materials;
- 5,000 tonnes of boxed meat at full production (export markets, pet food for domestic market); and
- Marketed to Japan, Europe, and Russia (existing export countries) including other potential markets.

CAPITAL COSTS

\$5 million - \$10 million (\$5 million equity).

TIMEFRAME

Short term (2016).

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate the Land Tenure Pathway for agriculture projects, administered by the Department of Lands. This includes negotiations concerning native title; pastoral leases; and water licences.

PROJECT NAME**Wyndham Abattoir (under discussion)**

PROPONENT/LEAD AGENT

To be determined

CONTACT DETAILS

Shire of Wyndham-East Kimberley
Telephone: +61 8 9168 4100
Website: <http://www.swek.wa.gov.au/contact-us.aspx>

REGION/LOCATION

Kimberley

INVESTMENT OPPORTUNITY

The Kimberley beef industry is large and growing. It has the following benefits:

- Guaranteed animal health and high food safety standards;
- Access to lower cost supply chains;
- Proximity to emerging export ports;
- Increasingly stable cattle supply; and
- Improved value-add opportunities through irrigation developments.

Past production systems have been based mainly on the export of live animals to Indonesia and elsewhere in Asia. The only existing abattoir in the Kimberley has recently been completed with an off-take of some 60,000 head from the west Kimberley region. The opportunity to have a Wyndham abattoir will have a supply of cattle from the stations of the east Kimberley, which are mainly large-scale operations. The total number of cattle in the Kimberley is some 700,000 head. Other sources of cattle supply are from the Northern Territory adjacent to the Kimberley with some 1.8 million head of cattle of which about 500,000 are marketed each year. Exports will be mainly to markets in Asia, including China via the port or by air from the East Kimberley Regional Airport of Wyndham Airport via Broome or Perth.

Business development options are:

- Development by an established Australian or international abattoir operator, to feed product into existing international and domestic supply chains and markets for Australian beef;
- Development by a pastoral company looking to take advantage of the benefits of vertical integration from breeding property to market. Alliances with existing stakeholders within the supply chain (beef wholesalers, retailers or large commercial consumers) could add value to the business model;
- Inclusion of local producers in the business model, either via ownership through a form of grower co-operative or through mutually beneficial supply contracts that establish supply and price arrangements;
- Involvement of international investors interested in food security, and focused on export into Asian and other market sectors experiencing strong demand growth; and
- One candidate for this type of investment would be an importer, and or wholesaler in a particular international market such as China.

CAPITAL COSTS

\$30 million to \$40 million.

TIMEFRAME

Short term (2016-17).

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate the Land Tenure Pathway for irrigated agriculture projects, administered by the Department of Lands. This includes negotiations concerning native title; pastoral leases; and water licences.

PROJECT NAME

Remote Monitoring of Stock and Assets

PROPONENT/LEAD AGENT

Tech Shepherd & Austin Partnership

CONTACT DETAILS

Tech Shepherd & Austin Partnership

Tom Jackson

Telephone: +61 8 9963 1377

Email: Austin_Partnership@bigpond.com

REGION/LOCATION

Murchison Rangelands, Mid West

INVESTMENT OPPORTUNITY

Tracking wildlife and endangered animals. Refine ear tags and collars and heat proof towers and batteries; roll out of 100,000 ear tags and 300 towers.

CAPITAL COSTS

\$2 million to \$5 million.

TIMEFRAME

Short to medium term (One to four years).

LEGISLATIVE REQUIREMENTS

All legislative requirements the responsibility of investors.

E. SHEEP

ASSETS

The Mid West is the main sheep area. The Mid West sheep population is estimated at 1.04 million head (2010-11 census). The region's sheep numbers have historically been much higher, trending down from above 2 million in 2004 and 2005. Sheep numbers in the region's rangelands (pastoral area) have declined from over 770,000 head in 2001 to less than 100,000 in 2011. This decline is largely attributed to a variety of factors including variable rainfall patterns and lower prices during much of the past decade.

Typically around two thirds of sheep meat is exported, either live or in boxed form. This was valued at approximately \$35 million in 2011. Wool is the region's main livestock product. The region produced 4,900 bales of fine wool in 2012 valued at around \$35 million, representing 7% of Western Australia production for the year. The Merino is the most common breed of sheep in Western Australia, making up 80% of the Western Australia flock. The remainder are 'British breeds' or so-called maternal breeds, meat specific breeds such as Dorpers and some breeds for specialty meat and fibre markets.

MARKETS

Australian lamb exports hit new highs in 2014, surpassing the previous year's record by 23,193 tonnes (11%), at 236,908 tonnes. It is anticipated that global markets will remain strong in the short, medium and long term.

Private sector investment in the more than 1,000 sheep stations in the Mid West is ongoing. Prospective investors have the opportunity in the Mid West and the Gascoyne to participate and benefit from the impact of the government support programme along the supply chain in an industry with very high standards matching global needs through well directed research, efficient production, high standards of processing and the benefit of market security.

Typically around two thirds of sheep meat is exported, either live or in boxed form. This was valued at approximately \$35 million in 2011. Wool is the region's main livestock product.



PROJECT NAME**Western Australia Sheep Industry Business Innovation Project**

PROPONENT/LEAD AGENT

Department of Agriculture and Food, Western Australia

CONTACT DETAILS

Department of Agriculture and Food, Western Australia
Project Manager

REGION/LOCATION

Gascoyne

GOVERNMENT INVESTMENT AND SUPPORT

The Mid West sheep population is quite large at an estimated 1.04 million head (2010-11 census); representing 7% of Western Australia sheep numbers. In 2014-15, the largest importers of Western Australian sheep meat were China (22%), Saudi Arabia (11%), the United Arab Emirates (8%), USA (7%) and Malaysia (7%) with some exported directly from the port of the main town of Geraldton. Western Australia's total gross value of annual production for wool was \$540 million in 2014-15; this represents 72.1 million kg wool or 408,000 bales (Australian Wool Testing Authority). Wool is the region's main livestock product. Typically around two thirds of sheep meat is exported - either live or in boxed form. Rising transport costs and insecurities in the live export chain are making local processing increasingly attractive. The developments in the sheep industry have the following benefits:

- Guaranteed animal health and high food safety standards;
- Access to lower cost supply chains;
- Proximity to emerging export ports;
- Increasingly stable sheep supply; and
- Improved value-add opportunities through irrigation developments.

A Memorandum of Understanding signed between the Western Australia government, Meat & Livestock Australia (MLA), Western Australia processor V&V Walsh and Grand Farm (China) involves Western Australia supplying an additional 500,000 lambs per annum to Grand Farm, China's biggest importer of red meat. Grand Farm is also building a 10,000 head feedlot to feed the world's biggest lamb processing plant north of the city of Harbin. Data for 2013-14 shows that Western Australia sent 13.9 million kg wool of sheep meat to China, up from 9.8 million kg in 2012-13.

The State government is giving strong support to further development of the Western Australia sheep industry through the Sheep Industry Business Innovation (SIBI) project, which is a \$10 million Royalties for Regions investment as part of the \$300 million "Seizing the Opportunity Agriculture" initiative.

The SIBI project will assist the industry to build capacity to supply new markets for sheep meat and live exports, particularly in nearby Asia and the Middle East, generating flow-on benefits to producers, industry, the regions, communities and the state economy.

The priority activities in order to produce a more profitable and resilient sheep industry tuned to customer needs are:

- To support the establishment of dedicated export supply chains (lamb and hogget carcasses, breeding stock and slaughter ready stock) that offer the level and consistency of returns needed to restore confidence in the industry;
- To increase the on-farm productivity of market-preferred products, through better genetic selection and higher stocking and reproductive rates;
- To improve business performance by improving farm business and production skills;
- To increase access to investment, both from within and outside of the industry, as a result of increased confidence among investors and more attractive business models; and
- To establish the human and physical resources needed to research, develop and demonstrate the elements required to achieve success in the industry and the means of sustaining those resources into the future.

A key outcome for the SIBI project is the development of a Sheep Business Centre which will provide a hub for information, research, training and innovation in sheep meat and will link with other providers throughout the State.

MLA has agreed to co-invest in the project, which is also supported by the Sheep Cooperative Research Centre's Enhanced Sheep Wellbeing and Productivity and Quality-based Sheep Meat Value Chains projects. The Western Australia Sheep Industry Leadership Council will be part of a stakeholder reference group that will provide direction to the project.

FUTURE INVESTMENT OPPORTUNITY

- Integrated red meat production, processing and distribution business;
- Feedlots for sheep; and
- Support services.

CAPITAL COSTS

To be confirmed.

TIMEFRAME

The project is underway and investors are already active.

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate the Land Tenure Pathway for irrigated agriculture projects, administered by the Department of Lands. This includes negotiations concerning native title; pastoral leases; agreements with mining companies if applicable; and water licences.

F. AQUACULTURE INVESTMENT OPPORTUNITIES

ASSETS

The Western Australian Government is committed to the development of sustainable marine aquaculture in Western Australia. To facilitate this commitment, the Minister for Fisheries announced a funding package to enable the establishment of two regional zones. In August 2014 the Kimberley Aquaculture Development Zone was created. Located in Cone Bay, this is the first aquaculture development zone to be established in Western Australia. This zone will create large-scale opportunities for existing and future aquaculture operations through a streamlined assessment and regulation process and increased licence volume driving investment in aquaculture and downstream industries such as transport, logistics, ice works and technical operations. A similar zone is currently being planned in the Mid West off the coast of Geraldton within the Abrolhos Island area, and proposed zones both offshore and onshore in the Pilbara-Gascoyne regions are currently being investigated by the Department of Fisheries. These are highly significant developments that have the potential to transform the aquaculture industry into a major new sector for the regions.

MARKETS

By 2050 the world's total food requirement is expected to increase by 70% due to population growth and the increasing demand for animal protein resulting from the rising middle class – particularly in the BRICS countries (Brazil, Russia, India, China and South Africa). The middle class is forecast to increase from 1.8 billion to around 5 billion people by 2030. Fish supply from wild fisheries has reached its peak and many fisheries are already over-fished. This and the cost competitiveness

of aquaculture compared to producing other sources of animal meat protein means large-scale aquaculture will play an increasingly important role in meeting the rising demand for animal meat protein. The Food and Agriculture Organisation of the United Nations (FAO) forecasts that aquaculture production will grow by 60% or around 30Mt per annum from 2010 to 2020. Seafood is an excellent nutritional source with greater health benefits than other sources of animal meat. China currently accounts for two-thirds of world aquaculture production but has recently switched from being a net seafood exporter to a net importer.

OPPORTUNITIES

The Kimberley Aquaculture Development Zone is in Cone Bay, at the northern end of King Sound, about 215 kms north east of Broome. This zone was declared by the Minister for Fisheries on 22 August 2014 and is the first aquaculture development zone to be established in Western Australia. Cone Bay is a proven location for the culture of barramundi. The tidal influence creates substantial water flow through the sea-cages in which the fish are grown, allowing for a high level of productivity with a low environmental impact.

The goal is a more streamlined assessment and regulation process due to early consideration of potential environmental impacts and cumulative impacts identified when the zone is assessed.

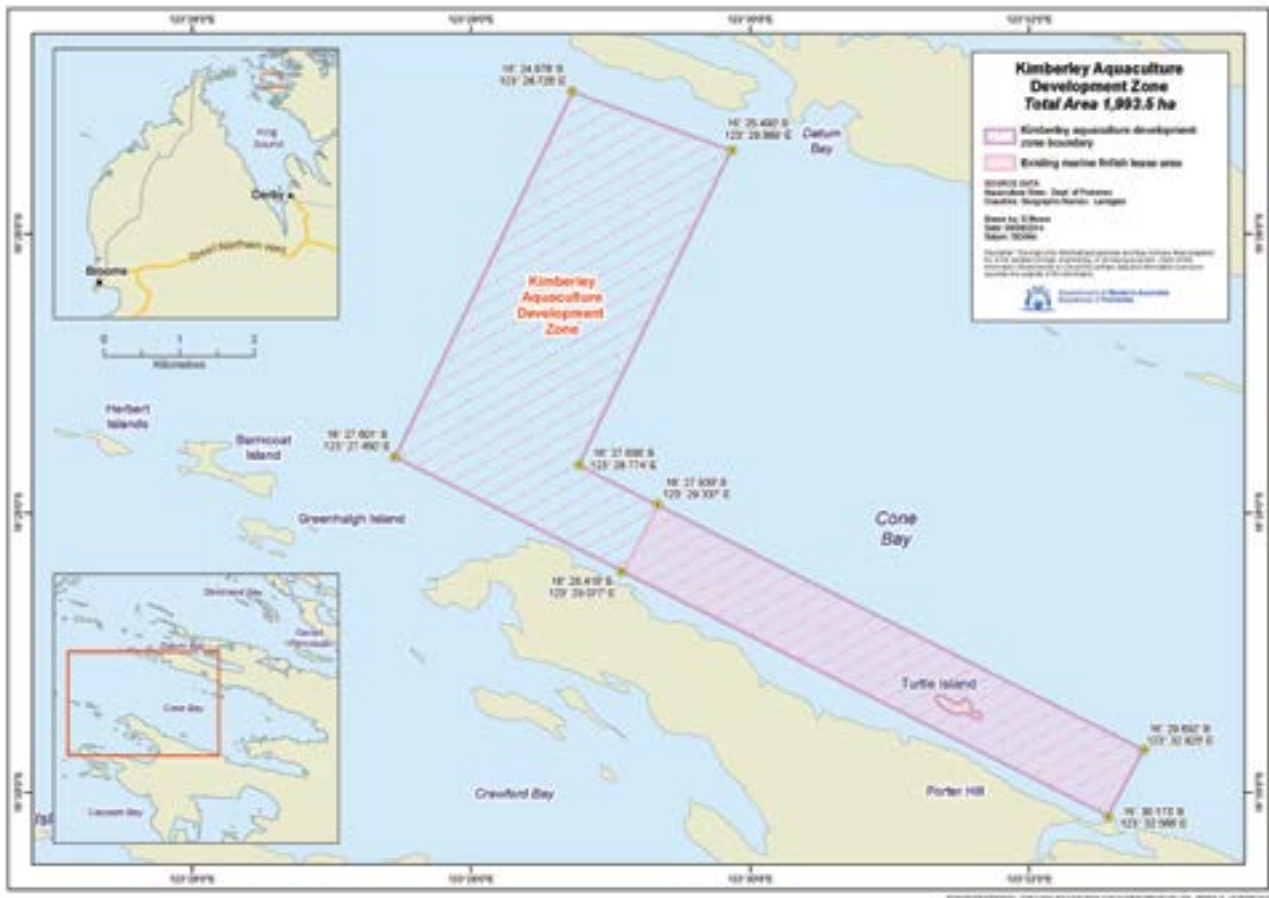
Establishing commercial marine finfish aquaculture projects in the zone is not expected to cause a significant environmental impact due to:

- The zone's characteristics, in particular, the high rates of water exchange that are sufficient to dilute nutrients before they are assimilated by the ecosystem;
- The adaptive management controls and environmental monitoring developed for the zone and the individual proposals within it; and

- The management policy manages the production limit of 20,000 tonnes per annum of marine finfish (based on live weight of harvested fish) for the zone, as set by the Strategic Environmental Approval. As the total area of the zone is approximately 2,000 ha, an average production capacity of not more than 10 tonne per ha would need to apply across the zone. Consequently, for each licence holder within the zone, the maximum permissible production per annum of marine finfish will be 10 tonne per ha, averaged over that licence holder's total lease area within the zone. In other words, maximum production will be proportional to the lease area. For example, a 5,000 tonne production per annum operation will require a minimum lease area of 500 ha.

The Western Australian Government is committed to the development of sustainable marine aquaculture in Western Australia.

Figure 8: Kimberley Aquaculture Development Zone



The proposed Mid West Aquaculture Development Zone is located in the southern part of the Abrolhos Islands Fish Habitat Protection Area (FHPA). The zone is located between the Pelsaert and Easter groups of the Abrolhos archipelago, approximately 65 km west of Geraldton. The location has a confluence of temperate and tropical sea life, forming one of the State's unique marine areas. This presents a rare opportunity for the aquaculture of a range of finfish species that occur across the west coast region of the State.

The zone comprises some 3,000 ha spread over two areas, a 2,200 ha northern area and an 800 ha southern area (an existing licensed aquaculture site). The specific location of these areas is shown overleaf.

The zone has several physical attributes that lend themselves well to finfish aquaculture, with relatively deep (35 to 45 metre), clean, well-flushed waters and an open, sandy sea floor. Collectively, these

attributes contribute towards minimal environmental impact from the proposed aquaculture activity.

Species to be cultured will be restricted to marine finfish native to the west coast region of Western Australia, including Yellowtail Kingfish; Mahi Mahi; Pink Snapper; Mulloway; Coral Trout; various Cod and tropical Snapper species. Translocation approval will be required to move fish and operators will need to comply with all other relevant legislation.

Approved culture methods will likely be floating sea cages with the size determined by the operators. There will be standards associated with net and mesh size, type and quality, anchorage and mooring infrastructure. There will also be regular inspections and maintenance required under operational and approvals processes. Marking and lighting will be required on all equipment and licensees should note that the zone is a non-

exclusive access area. Non-exclusive access means that members of the public and vessels will have access to the zone, provided they do not interfere with the aquaculture equipment or contained fish.

Stock biomass limits and production capacity are set out in the Management Policy with the maximum permissible stock biomass of marine finfish per licence holder being directly proportional to the licence holders total lease area within the zone. The maximum limit for the zone is proposed to be 24,000 tonnes of finfish biomass.

The project to assess aquaculture zones in the Pilbara and Gascoyne is currently underway with funding from the Pilbara Development Commission, and with Department of Fisheries providing the technical input. It is investigating both off-shore and on-shore options and potential sites. Assuming a positive outcome, it is likely that the designated sites will

have similar regulatory and management arrangements as the other zones. The investment feasibility and infrastructure needs are also being assessed alongside regulatory, environmental and production system considerations.

Seafarms Group Limited is an Australian agri-food company, which operates, builds and invests in sustainable aquaculture production platforms. Seafarms is currently developing Project Sea Dragon, a large-scale, integrated, land-based prawn aquaculture project in northern Australia. The project is designed to produce high-quality, year-round reliable volumes of black tiger prawns for export markets.

Project Sea Dragon includes the development of a series of facilities across northern Australia:

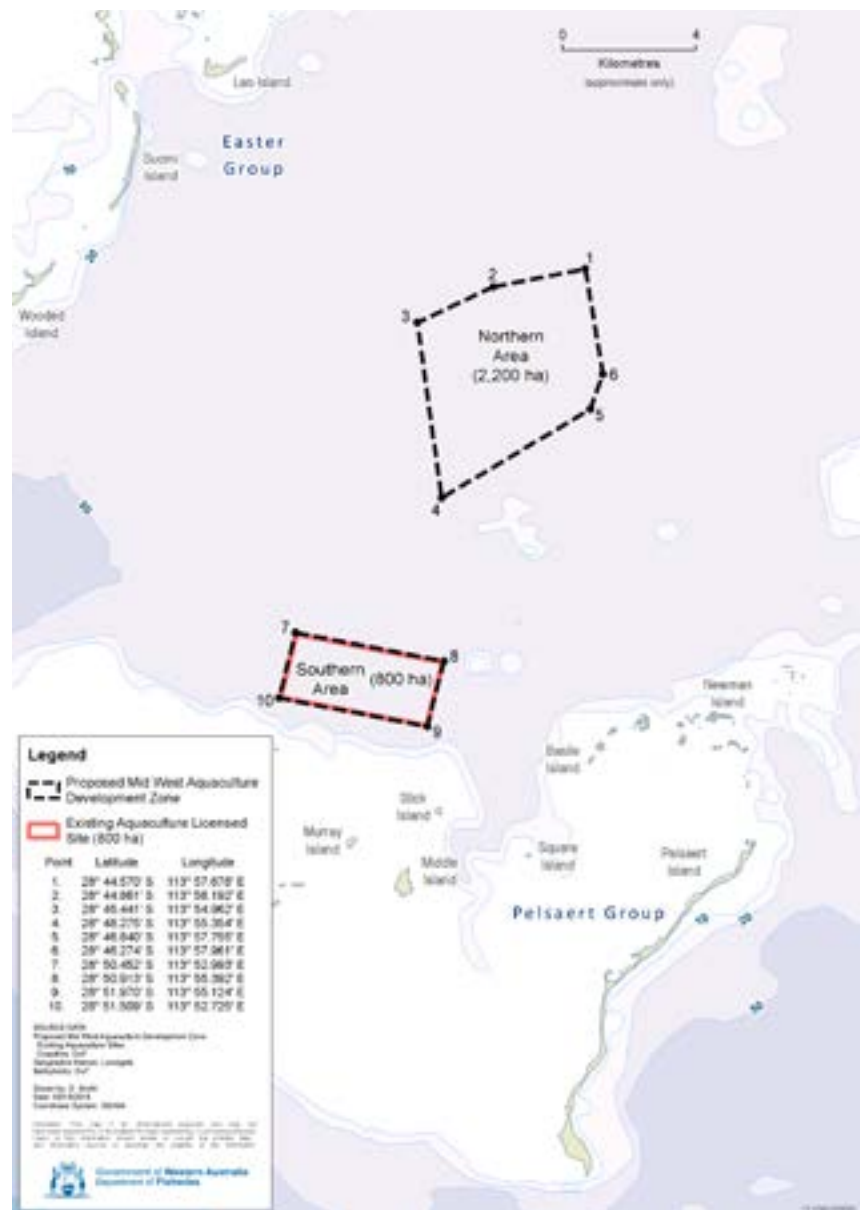
- Breeding programme and multiplication centre;
- Hatchery;
- Grow out;
- Biosecurity, shrimp health and diagnostics; and
- Harvesting and processing science.

Project Sea Dragon is a unique and world class aquaculture opportunity designed to meet the growing global demand for seafood, particularly in Asia, at a scale that enables it to leverage Australia's comparative advantages in bio-security, marine science, access to key raw materials and expertise in large scale resource and agricultural development.

With a phased approach to development, Seafarms has signed an Access and Option Agreement (AOA) over Legune Station, a 180,000 ha operating cattle station located in the Kimberley region for the development of Project Sea Dragon. The project is to be developed in stages, with Stage 1 consisting of 1080 ha of prawn production ponds. Stage 1 is about 10% of the total project.

Seafarms has high-level support from the Western Australian, Northern Territory and Federal governments for the project, which is vital to securing land access and production licences. The project will continue to be developed with a proven "front-end-loading" process through the Feasibility Study Phase to Financial Close. Seafarms has already completed a Pre-Feasibility Study, which confirmed

Figure 9: Proposed Mid West Aquaculture Development Zone



robust economics, and a Bankable Feasibility Study is currently underway. The project is well advanced in terms of its environmental investigations to support its Environmental Impact Study. Seafarms estimates that the project will create approximately 1,500 direct jobs, with a range of skilled and unskilled roles across the facilities.

It is possible that other areas in the mid and north of Western Australia may be suitable for production of inland prawns/shrimps. Investors will be required to

negotiate the Land Tenure Pathway administered by the Department of Lands. This includes negotiations concerning native title; pastoral leases; agreements with mining companies if applicable; and water licences.

PROJECT NAME**Pilbara Edible Oyster Joint Venture**

PROPONENT/LEAD AGENT

Joint Venture Partners:

Thalanyji Aboriginal Corporation 50%

Maxima Opportunity Pty Ltd. 50%

CONTACT DETAILS

Thalanyji Aboriginal Corporation

Chief Executive Officer

Telephone: +61 8 9321 3166

Email: ceo@thalanyji.com.au

REGION/LOCATION

Onslow, Pilbara

FUTURE INVESTMENT OPPORTUNITY

The Joint Venture partners will establish an edible oyster aquaculture production, processing and distribution business on the Pilbara coast. The project would provide significant employment opportunities across the supply chain for traditional owners of the Pilbara coast. There are good quality sites that support natural populations of wild oysters on the Pilbara coast. This project will utilise leaders from the South Australian and New South Wales oyster industry to assist in identification of the best sites for commercial grow out of the local oyster species and the technology transfer of proven grow out systems to the Pilbara coast. The project will also establish a grading and packing facility to distribute edible oysters to domestic and international markets.

CAPITAL COSTS

\$2 million.

TIMEFRAME

Three to five years.

LEGISLATIVE REQUIREMENTS

To be advised.

There are good quality sites that support natural populations of wild oysters on the Pilbara coast. This project will utilise leaders from the South Australian and New South Wales oyster industry to assist in identification of the best sites for commercial grow out of the local oyster species and the technology transfer of proven grow out systems to the Pilbara coast.





Tourism Investment Opportunities

06

ASSETS

The regions have a thriving, well serviced and diversified tourism industry with regional linkages, taking advantage of the vast natural assets of the sea and the land with breathtaking scenery and abundant sunshine. The assets and attractions of the regions are world class and supporting infrastructure, including adequate power and water, is available.

There is over 6,000 kms of scenic coast line with some of the world's best beaches, dramatic coastal scenery, the 260 km long Ningaloo Reef and thousands of islands set in crystal clear and beautiful blue waters including the Abrolhos Islands. There are numerous global scale ports and a wide range of activities at dozens of sites, each with a unique character, including swimming, boating, fishing, diving and snorkelling.

Inland attractions include truly dramatic and varied scenery in remote locations. This includes large rivers set in scenic river gorges with a staggering range of rock colours, waterfalls, river estuaries, Lake Argyle and Lake Kununurra that are 165 kms long (in the East Kimberley) and a vast array of walking trails set in numerous, massive national parks and reserves.

All of the regions have a rich Aboriginal culture and history going back many thousands of years. This history is found nowhere else on earth. Numerous ancient rock art sites abound. Other unique attractions include the largest pink diamond producer in the world (Argyle Diamond Mine), as well as one of the world's main pearl producing regions and an extremely wide range of dining, wining and eating opportunities with local cuisine

produced to high standards often set in wonderful and scenic locations on rivers, lakes, on the coast or adjacent to or in national parks and reserves.

All four regions offer (to varying degrees) most of the key criteria that are used by tourists globally in selecting their holiday destinations:

- A safe and secure destination;
- Good food, wine, local cuisine and produce;
- Interesting attractions to visit;
- A destination that offers value for money;
- Rich history and heritage;
- Friendly and open citizens, local hospitality;
- World class beauty and natural environments; and
- Spectacular coastal scenery.

Visitor numbers, including tourists and business travellers, have increased rapidly in recent years. Over the medium to long term it is anticipated that visitor numbers will grow strongly as more product becomes available in terms of accommodation, sites and services. Total expenditure in 2013-14 was over \$1.3 billion and more than 2 million people visited.

MARKETS

The potential for expanded tourism opportunities in the four regions can be illustrated in relation to the substantial value of the overall global tourism industry. An ever-increasing number of destinations worldwide have opened up to tourism investment turning it into a key driver of socio-economic progress through the creation of jobs and enterprises, export revenues, and infrastructure development.

This is important in terms of economic diversification in the four regions covered in the Investment Portfolio:

- Over the past six decades, tourism has experienced continued expansion and diversification, to become one of the largest and fastest-growing economic sectors in the world. Many new destinations have emerged in addition to the traditional favourites of Europe and North America;
- Despite occasional shocks, tourism has shown virtually uninterrupted growth. International tourist arrivals have increased from 25 million globally in 1950, to 278 million in 1980, 527 million in 1995, and 1,133 million in 2014; and
- International tourism receipts earned by destinations worldwide have surged from US\$2 billion in 1950 to US\$104 billion in 1980, US\$415 billion in 1995 and US\$1,245 billion in 2014.

The long-term outlook is that international tourist arrivals worldwide are expected to increase by 3.3% a year between 2010 and 2030 to reach 1.8 billion by 2030, according to United Nations World Tourism Organisation's long term forecast "Tourism Towards 2030".

Luxury travel is booming and is the strongest-growing market segment worldwide, according to ITB Berlin travel trade show. With a 48% increase in the last five years, luxury travel has grown twice as fast as all other types of foreign trips, which grew by 24%²¹. A total of 172 billion Euros was spent on international luxury travel in 2014.

Table 9: Visitors and Expenditure (2014)

Region	Visitors	Visitor Nights (million)	Visitor Expenditure (\$m)
Kimberley	402,000	4.3	333
Pilbara	850,000	8.1	362
Gascoyne	284,000	1.9	246
Mid West	540,000	2.3	295
Total	2,076,000	16.6	1,236

²¹Special evaluation of the World Travel Monitor®, which is conducted by IPK International and commissioned by ITB Berlin. Luxury trips defined for this analysis as all short trips with spending of more than 750 Euros per night and all long trips costing more than 500 Euros per night.

The largest growth rate was in the number of luxury trips undertaken by the Chinese, followed by the USA, Canada, Taiwan, Korea and the United Arab Emirates. Holidays abroad represent the dominant share of all luxury trips. The most popular types of luxury holidays are tours, with 29% of the total, followed by city trips, beach holidays and cruises. Most of these destination offers are available in the four regions.

OPPORTUNITIES

The Register of Significant Tourist Accommodation Development in Western Australia 2013-2014 (maintained by Tourism Western Australia) indicates that in the four regions the number of

investment projects under construction or planned totalled 37 with a capital cost of over \$510 million. Most hotels and resorts are in the medium size category with capital costs of \$20 million to \$30 million. Future opportunities are diverse, including hotels, resorts, apartments, caravan parks and luxury hotels, which represent a significant opportunity.

Linkages between tourist destinations in the four regions, to take advantage of different world class in-land and coastal experiences and offerings, are an attractive proposition, which will be enhanced with additional product including the luxury tourism segment of the market. Expanding the range and scope of such linked tour offerings is a key opportunity.

A selection of tourism related project opportunities are presented below:

PROJECT NAME

Shire of Broome – Tourism

PROPONENT/LEAD AGENT

Shire of Broome

CONTACT DETAILS

Economic Development Manager
Telephone: +61 8 9191 3456
Website: www.broome.wa.gov.au/Contact-Us

REGION/LOCATION

Broome, Kimberley

INVESTMENT OPPORTUNITY

Tourism opportunities are based on:

- Tourism is a key industry creating jobs and economic opportunities in Broome in the accommodation, food services, retail and transport sectors;
- Between 2011 and 2013 Broome had an annual average of 180,500 overnight visitors, generating an estimated total of 1,305,000 visitor nights. The average length of stay was 7.2 nights varying from 6.1 nights for intrastate visitors to 11.8 nights for international visitors;
- Domestic overnight visitors spend \$128 on average per night with international visitors spending \$54 per night. Economic impact is reflected in the accommodation, food services, and retail and transport sectors;
- Visitors to the Kimberley region create an estimated \$327 million in turnover. Approximately 88% are domestic visitors with key international markets being the United Kingdom, Germany and Continental Europe, New Zealand and the USA;
- Broome has spectacular marine and terrestrial landscapes providing an authentic Australian experience. It has enviable winter weather, world class natural assets and offers first class tourism products and experiences;
- Tourism makes a strong economic contribution to Broome, creating employment opportunities as well as business opportunities. Tourism in Broome is well placed to capitalise on growing and changing market opportunities, most notably the expected resurgence of traditional tourism markets (United Kingdom, Europe and the USA) as well as the emergence of new markets (China, India and South-East Asia);
- Significant opportunities exist for new tourism products such as cultural, culinary and nature based tourism both in Broome and along the Dampier Peninsula. This will deepen Broome's appeal to the growing Asian middle class. There is also an expanding cruise ship market in Broome, with total direct expenditure in 2013-14 from 14 cruise visits being \$1.9 million. Tourism Western Australia has detailed that Broome recorded \$3.2 million in total expenditure from the cruise ship industry in 2013-14;
- Tourism is well supported by Australia's north west regions destination marketing tourism organisation and the Broome Visitors Centre, which offers visitor servicing and product sales for members;
- More recently the industry in Broome formed the Broome Tourism Leadership Group to drive growth and momentum in tourism in Broome. This group has delivered a Broome Tourism Strategy that focuses on six pillars to growth including brand, access, experience, infrastructure, industry and leadership. The first funded project is development of a destination brand for Broome;
- With global trends and demographics supporting new product development along with strong industry support now is a great time to invest in the tourism industry in Broome;
- There are possibilities to widen the product offering further to include "medical tourism" for example; and
- The sealing of the Cape Leveque road on the Dampier Peninsula will open up significant opportunities in a very beautiful coastal location.

Investment will include:

- Land acquisition;
- Supporting infrastructure; and
- Construction.

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the economy:

- It will create significant investment and job opportunities;
- It will add significantly to the quality of marketable tourism in the Shire of Broome;
- Construction of facilities and supporting infrastructure; and
- Support to existing tourism products and services.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with other towns and regions in the north west (Kimberley, the Gascoyne and the Mid West regions) in addition to main cities with existing air links; including Perth and Melbourne.

COMMUNITY ENGAGEMENT

Engagement and consultation with the region's landholders and project stakeholders is necessary.

LINKAGES TO OTHER PROJECTS

Linkages to existing investments in tourism and proposed luxury tourism in other Regions.

CAPITAL COSTS

Dependent on project scope.

TIMEFRAME

Short term: Tendering and selection.
Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the Shire of Broome and Aboriginal traditional landowners.

PROJECT NAME

Nyamba Buru Yawuru Tourism Opportunity

PROPONENT/LEAD AGENT

Nyamba Buru Yawuru Ltd

CONTACT DETAILS

Nyamba Buru Yawuru Ltd
Development Manager
Tristan Cribb
Telephone: +61 8 9192 9600
Email: tristan.cribb@yawuru.org.au

REGION/LOCATION

Broome, Kimberley

INVESTMENT OPPORTUNITY

Beachfront hotel resort, including restaurants, bars and cafés, and spa retreat. Absolute beachfront access to the world famous Cable Beach. Tourism opportunities are based on:

- Tourism is a key industry creating jobs and economic opportunities in Broome in the accommodation, food services, retail and transport sectors;
- Between 2011 and 2013 Broome had an annual average of 180,500 overnight visitors, generating an estimated total of 1,305,000 visitor nights. The average length of stay was 7.2 nights varying from 6.1 nights for intrastate visitors to 11.8 nights for international visitors;

- Domestic overnight visitors spend \$128 on average per night with international visitors spending \$54 per night. Economic impact is reflected in the accommodation, food services, and retail and transport sectors;
- Visitors to the Kimberley region create an estimated \$327 million in turnover. Approximately 88% are domestic visitors with key international markets being the United Kingdom, Germany and Continental Europe, New Zealand and the USA;
- Broome has spectacular marine and terrestrial landscapes providing an authentic Australian experience. It has enviable winter weather, world-class natural assets and offers first class tourism products and experiences; and
- Tourism is well supported by Australia's north west regions destination marketing tourism organisation and the Broome Visitors Centre, which offers visitor servicing and product sales for members.

Investment will include:

- Unserviced land available for long term lease or development partnership;
- Development proponents undertake own project approvals and development;
- Supporting infrastructure: and
- Construction.

Areas carefully selected for development to minimise environmental harm. Opportunities for water sensitive urban design, and renewal energy production.

COMMUNITY ENGAGEMENT

Engagement and consultation with the region's landholders and project stakeholders.

LINKAGES TO OTHER PROJECTS

Linkages to existing investments in tourism and proposed luxury tourism in other regions.

CAPITAL COSTS

Dependent on project.

TIMEFRAME

Short term: Tendering and selection.
Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the Shire of Broome and Aboriginal traditional landowners.

Tourism is a key industry creating jobs and economic opportunities in Broome in the accommodation, food services, retail and transport sectors

PROJECT NAME

Broome Marina

PROPONENT/LEAD AGENT

Private Investors

CONTACT DETAILS

Director Kimberley Accommodation
Martin Peirson-Jones
Mobile: +61 448 773 253
Email: martin@kimberleyaccommodation.com.au

REGION/LOCATION

Broome, Kimberley

FUTURE INVESTMENT OPPORTUNITY

The range of activities in Broome's superlative natural environment has many of the features that tourists require. This includes luxury tourism where there is a substantial very high value luxury tourism world market, and increasingly within Australia. Broome has a significant tourism industry, which is supported by a wide range of hotels and resorts. Broome is on the Western Australia luxury cruise liner route.

The marina is in support of marine safety, which is an issue in Broome due to rising sea levels. It will offer exceptionally high quality amenities for hospitality facilities and marine service industries.

Investment will include:

- Land acquisition;
- Supporting infrastructure; and
- Construction.

ECONOMIC BENEFITS

The marina will add to the diversification of the economy:

- It will create significant investment and job opportunities;
- It will add significantly to the quality of marketable tourism in the Shire of Broome;
- Construction of the marina and supporting infrastructure; and
- Support to existing tourism products and services.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits; with planning of regionally linked itineraries with other towns and regions in the north west (Kimberley, Gascoyne, Pilbara and the Mid West regions) in addition to main cities with existing air links; including Perth and Melbourne.

LINKAGES TO OTHER PROJECTS

Linkages to existing investments in tourism and proposed luxury tourism in other regions.

CAPITAL COSTS

\$300 million.

TIMEFRAME

Short term: Tendering and selection.
Medium term: Construction and marketing

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the Shire of Broome and Aboriginal traditional landowners.

PROJECT NAME**Back Beach Tourism Site**

PROPONENT/LEAD AGENT

Humfrey Land Developments

CONTACT DETAILS

Humfrey Land Developments

Barry Humfrey

Telephone: +61 8 9964 8028

Email: barryh@hld.com.au

Website: <http://www.hld.com.au/contact.php>

REGION/LOCATION

Geraldton, Mid West

INVESTMENT OPPORTUNITY

A development site on vacant land on the shoreline near the city centre. The development area is 9.51 ha. The Geraldton tourism industry is well developed with numerous restaurants and tourism services such as boat, helicopter and fixed wing sightseeing, fishing, many tourism precincts and the beautiful Abrolhos Islands offshore. The industry is poised for growth with an increasing number of international visitors from China and elsewhere.

Investment will include:

- Land acquisition;
- Supporting infrastructure; and
- Construction.

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the economy:

- It will create significant investment and job opportunities;
- It will add significantly to the quality of marketable tourism;
- Construction of facilities and supporting infrastructure; and
- Support to existing tourism products and services.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits; with planning of regionally linked itineraries with other towns and regions in the north west (Kimberley, the Pilbara and the Mid West regions) in addition to main cities with existing air links; including Perth and Melbourne.

COMMUNITY ENGAGEMENT

Engagement and consultation with the region's landholders and project stakeholders, including the Department of Education, has already taken place and will need to be progressed.

CAPITAL COSTS

Dependent on proponent estimates by facility, in the region of \$25 million.

TIMEFRAME

Short term: Final design, tendering and selection.

Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use has already been negotiated with the City of Greater Geraldton and negotiation with Aboriginal traditional landowners has been finalised.

The Geraldton tourism industry is well developed with numerous restaurants and tourism services such as boat, helicopter and fixed wing sightseeing, fishing, many tourism precincts and the beautiful Abrolhos Islands offshore.

PROJECT NAME

East Wallabi Island (Abrolhos Islands)

PROPONENT/LEAD AGENT

Humfrey Land Developments

CONTACT DETAILS

Humfrey Land Developments

Barry Humfrey

Telephone: +61 8 9964 8028

Email: barryh@hld.com.au

Website: <http://www.hld.com.au/contact.php>

REGION/LOCATION

Mid West

INVESTMENT OPPORTUNITY

Site on Flag Hill with a 14.5 metre height advantage.

Completed are:

- Won Government Tender in 2002;
- Public Environment Review (PER) in 2006. Completed in 2008;
- 2010-12 studies on 1 in 100 storm events for cyclones/tsunamis and winter storms; and
- Underlying rock survey and mapping completed in 2015.

The Geraldton tourism industry is well developed with numerous restaurants and tourism services such as boat, helicopter and fixed wing sightseeing, fishing, many tourism precincts and the beautiful Abrolhos Islands offshore. The industry is poised for growth with an increasing number of international visitors from China and elsewhere.

The Abrolhos Islands and their surrounding coral reef communities form one of Western Australia's unique marine areas. The southern group of islands lie approximately 45 kms west of Geraldton, with the Wallabi Group approximately 65 kms north west of Geraldton on the West Australian coast. The Abrolhos Islands consist of 122 islands clustered into three main groups: the Wallabi Group, Easter Group and Pelsaert Group, which extend from north to south across 70 kms of ocean. Lying in the stream of Western Australia's warm, southward-flowing Leeuwin Current, the marine environment surrounding the Abrolhos is a meeting place for tropical and temperate sea life. Large breeding colonies of seabirds exist on many of the Abrolhos Islands, and depend for their food on schools of pelagic baitfish. More than 90 species of seabird have been identified. Smaller seabirds, in turn, provide food for white breasted sea eagles which occur in unusually large numbers throughout the Abrolhos Islands. The beautiful but treacherous reef-surrounded atolls have claimed many wrecks over the centuries. The most notable was the Batavia in 1629, which is a major tourist attraction.

Investment will include:

- 63 year land lease in the A class reserve on East Wallabi Island;
 - Supporting infrastructure; and
 - Construction.
-

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the economy:

- It will create significant investment and job opportunities;
 - It will add significantly to the quality of marketable tourism;
 - Construction of facilities and supporting infrastructure; and
 - Support to existing tourism products and services.
-

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with other towns and regions in the north west (Kimberley, the Pilbara and the Mid West regions) in addition to main cities with existing air links; including Perth and Melbourne.

COMMUNITY ENGAGEMENT

Engagement and consultation with the region's landholders and project stakeholders has already been undertaken and any native title has been extinguished.

CAPITAL COSTS

Dependent on project, in the region of \$15 million.

TIMEFRAME

Short term: Final design, tendering and selection.

Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs have been completed with Fisheries Western Australia and building design is to be finalised with the City of Greater Geraldton.

PROJECT NAME

Exmouth Development Site

PROPONENT/LEAD AGENT

Humfrey Land Developments

CONTACT DETAILS

Humfrey Land Developments

Barry Humfrey

Telephone: +61 8 9964 8028

Email: barryh@hld.com.au

Website: <http://www.hld.com.au/contact.php>

REGION/LOCATION

Exmouth, Gascoyne

INVESTMENT OPPORTUNITY

The Exmouth lodge site is in close proximity to the canal development which is now almost completed. It is also close to the marina. The site can be 40% permanent accommodation.

Approval was granted to the site to be used for workers accommodation for seven years then converted back to a 4.5 star resort. Plans were changed to modular construction to keep costs down. There will be 212 apartments in total. Top floors have views over the beach.

The Exmouth tourism industry is well developed with numerous restaurants and tourism services such as boat, helicopter and fixed wing sightseeing, fishing, many tourism precincts and the beautiful Abrolhos Islands offshore. The industry is poised for growth with an increasing number of international visitors from China and elsewhere.

Exmouth is one of the few areas in Australia that can boast the Range to Reef experience. The Cape Range National Park, with its spectacular gorges, is nestled on the west coast of the Cape and provides a large variety of camp sites on the coastal fringe of the park. You can hike through walk trails and gorges offering some of the best views in the west, or indulge in relaxing at pristine sandy beaches with crystal clear turquoise waters. Visit the top of the Range to see the sun rise and set over the beautiful beaches that encompass the North West Cape.

The world-heritage listed Ningaloo Marine Park extends 260 kms along the west coast of the Cape and provides one of the world's best reef experiences. Accessible directly from the shore, the Ningaloo Reef boasts an abundance of beautiful corals and amazing marine life. Explore the reef by snorkelling, diving or swimming amongst unique and colourful fish, ancient and vibrant corals, inquisitive dolphins, dugongs, turtles and manta rays. Visit at the right time of year and swim alongside the majestic whale sharks as they migrate past the coast.

Investment will include:

- Land acquisition;
 - Supporting infrastructure; and
 - Construction.
-

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the economy:

- It will create significant investment and job opportunities;
 - It will add significantly to the quality of marketable tourism;
 - Construction of facilities and supporting infrastructure; and
 - Support to existing tourism products and services.
-

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with other towns and regions in the north west (Kimberley, the Pilbara and the Mid West regions) in addition to main cities with existing air links; including Perth.

COMMUNITY ENGAGEMENT

Engagement and consultation with the region's landholders and project stakeholders is necessary.

CAPITAL COSTS

Dependent on proponent in the region of \$54 million.

TIMEFRAME

Short term: Tendering and selection.

Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

All land use issues have been completed with the Shire of Exmouth and relevant Authorities.

Exmouth is one of the few areas in Australia that can boast the Range to Reef experience.

PROJECT NAME**Leeman Development Site (Caravan Park)**

PROPONENT/LEAD AGENT

Humfrey Land Developments

CONTACT DETAILS

Humfrey Land Developments
Barry Humfrey
Telephone: +61 8 9964 8028
Email: barryh@hld.com.au
Website: <http://www.hld.com.au/contact.php>

REGION/LOCATION

Mid West

INVESTMENT OPPORTUNITY

Leeman is an operating caravan park with 120 bays on 3.4 ha. The site is adjacent to a beach with direct access to the foreshore. Oil and gas exploration is ongoing in the area. The lot size has the potential for 212 apartments and facility buildings to be constructed overlooking the beach.

Investment will include:

- Both adjacent land acquisition and existing caravan park land and operations;
- Supporting infrastructure; and
- Construction.

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the economy:

- It will create significant investment and job opportunities;
 - It will add significantly to the quality of marketable tourism;
 - Construction of facilities and supporting infrastructure; and
 - Support to existing tourism products and services.
-

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with other towns and regions in the north west (Kimberley, the Pilbara and the Mid West regions) in addition to main cities with existing air links; including Perth.

COMMUNITY ENGAGEMENT

Engagement and consultation with the region's landholders has been completed.

CAPITAL COSTS

Dependent on project, varies from purchase only to full construction. \$3 million to \$32 million.

TIMEFRAME

Short term: Design approval from local council to tendering and selection.

Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the City of Greater Geraldton.



PROJECT NAME

Luxury Tourism East Kimberley (under discussion)

PROPONENT/LEAD AGENT

To be determined

CONTACT DETAILS

Shire of Wyndham-East Kimberley

Chief Executive Officer

Carl Askew

Telephone: +61 8 9168 4100

Email: ceo@swek.wa.gov.au

Website: <http://www.swek.wa.gov.au/contact-us.aspx>

REGION/LOCATION

Kununurra and Port of Wyndham, Kimberley

FUTURE INVESTMENT OPPORTUNITY

The tourism attractions of the East Kimberley region are world renowned and exceptional:

An attractive main town (Kununurra) with a range of tours, galleries, dining and recreational activities. Kununurra is the Kimberley's busiest scenic flight base (helicopter and fixed wing), with flights to Purnululu, Mitchell Falls and the Kimberley coast.

The beautiful and scenic Ord River, one of the largest rivers in Australia, two major lakes of outstanding beauty (Lake Argyle and Lake Kununurra), which together are 165 km long, provide a wonderful eco tourism experience with boat and river cruises.

Lake Argyle which dams the Ord River is now one of the world's largest man made water bodies, with a volume equivalent to that of Sydney Harbour and has 72 islands.

The Ord River irrigation project with a variety of crops and sandalwood forest, provides another aspect of pleasing scenery and agri - tours.

A dramatic large area of rock hills within a two hour drive, called the Bungle Bungles with distinctive and unique colouring.

World renowned luxury eco-tourism lodges nearby (El Questro and Berkley River Lodge).

Production and retailing of unique and high quality pink diamonds from the world's largest pink diamond producer (Argyle Diamond Mine).

Adventure drives on historic old cattle routes including the Gibb River Road and Parry Creek.

Rich fishing opportunities, particularly the world famous Barramundi.

A world renowned eco system, with 35,000 freshwater crocodiles in Lake Argyle alone, and over 270 species of birds recorded in the Lake Argyle region, that is almost one third of all the species found in Australia, some of which are rare and on endangered species lists.

A nearby old and picturesque port (Wyndham) is situated along the Great Northern Highway. Its appeal to tourists includes its history, as a major hive of activity during the European settlement of the East Kimberley, the Five Rivers Lookout, an Afghan Cemetery and the remote and desolate nature of the area.

Five River's Lookout is one of mother nature's amazing attractions, and is easy to get to from Wyndham. Five Rivers Lookout is truly unique. The lookout is located on a summit 335 metres above sea level. The views from the peak are dramatic and magnificent. Visitors are able to take in the extraordinary images of the five river mouths of the Gulf; Durack, Kink, Pentecost, Forrest, and Ord Rivers.

There are several possible sites, on the foreshore of Lake Kununurra. Possible sites include the current race track, the current golf course, several foreshore sites with very attractive natural setting e.g. below the dam wall of Lake Kununurra, which has a sparkling waterfall over the spillway, and the Five River's Lookout hill top outside of the Port of Wyndham.

A full-service boutique style luxury hotel will be a hub for taking advantage of tourism opportunities. It will offer exceptionally high quality amenities including full service accommodations, on-site full service with one or more restaurants, the highest level of personalised service, a varied range of luxury tourism options that have global attraction utilising all the tourism services already available in the East Kimberley, and a helicopter landing pad on the roof. The number of rooms is likely to be in the range of 40-50, although this will depend on proponent analysis.

Additional facilities could include a variety of onsite facilities such as a swimming pool, business centre, childcare, conference facilities and social function services. Design will include a long list of quality features.

Design features to the highest standards of luxury accommodation are a requirement. The hotel needs to be in harmony with the environment and blend in with the landscape.

Investment will include:

- Land acquisition;
- Hotel construction; and
- Supporting infrastructure.

ECONOMIC BENEFITS

The hotel will add to the diversification of the economy:

- It will create significant investment and job opportunities;
- It will add significantly to the quality of marketable tourism;
- Construction of the hotel and supporting infrastructure; and
- Support to existing tourism products and services.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with the Northern Territory and the regions of the west Kimberley, Pilbara, Gascoyne and the Mid West in addition to main cities with existing air links; including Perth and Melbourne.

COMMUNITY ENGAGEMENT

Engagement and consultation with the region's landholders and project stakeholders is necessary.

LINKAGES TO OTHER PROJECTS

Linkages to existing investments in tourism and proposed luxury tourism in other regions.

CAPITAL COSTS

\$40 million to \$60 million.

TIMEFRAME

Short term: Tendering and selection.
Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the Shire of East Kimberley and discussions held with the Miriuwung and Gajerrong Aboriginal Corporation.

PROJECT NAME

Eco Tourism Hotel and Island Eco and Glamping Facilities West Pilbara

PROPONENT/LEAD AGENT

City of Karratha

CONTACT DETAILS

City of Karratha
Director, Development Services
David Pentz
Telephone: + 61 8 9186 8555
Email: david.pentz@karratha.wa.gov.au

REGION/LOCATION

Karratha, Pilbara

FUTURE INVESTMENT OPPORTUNITY

The range of activities in a superlative natural environment in a remote location has many of the features that tourists require. This includes luxury tourism where there is a substantial very high value luxury world tourism market, and increasingly within Australia. The total value of luxury tourism world-wide is over US \$120 billion and it is the fastest growing tourism sector of all. Within Australia the luxury market is growing fast.

Design will include a long list of quality features. The hotel and associated eco and glamping facilities needs to be in harmony with the environment and to blend in with the landscape.

Investment will include:

- Land acquisition;
- Hotel and associated eco and glamping facilities construction; and
- Supporting infrastructure.

ECONOMIC BENEFITS

The hotel and associated eco and glamping facilities will add to the diversification of the economy:

- It will create significant investment and job opportunities;
- It will add significantly to the quality of marketable tourism;
- Construction of the hotel, eco and glamping facilities and supporting infrastructure; and
- Support to existing tourism products and services.

The town of Dampier in the City of Karratha, in close proximity to many tourist attractions including the Dampier Peninsula which contains the country's largest Aboriginal collection of rock art, the pristine marine environment of the Dampier Archipelago, Point Samson an attractive resort town, some of the world's largest cargo ports, the spectacular LNG processing facilities of Woodside Petroleum, Millstream Pond, the town of Roebourne with a rich history of settlement, the heritage settlement of Cossack with an historic wharf and links to Jarman Island.

There are air links to Broome in the north and Perth in the south and good road links to all tourism sites. The airport at Karratha has been upgraded and will be an international precinct.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with other towns and regions in the north west (Kimberley, the Gascoyne and the Mid West regions) in addition to main cities with existing air links to Perth and Broome.

COMMUNITY ENGAGEMENT

Engagement and consultation with the region's landholders and project stakeholders is necessary.

CAPITAL COSTS

\$40 million to \$60 million per site.

TIMEFRAME

Short term: Tendering and selection.
Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with City of Karratha and local Aboriginal groups.

PROJECT NAME

Mt Augustus Tourist Park

PROPONENT/LEAD AGENT

Shire of Upper Gascoyne

CONTACT DETAILS

Shire of Upper Gascoyne
Chief Executive Officer
John McCleary
Telephone: +61 8 9943 0988
Email: ceo@uppergascoyne.wa.gov.au
Website: <http://www.uppergascoyne.wa.gov.au/Council-Information.aspx>

REGION/LOCATION

Mt Augustus National Park, Gascoyne.

INVESTMENT OPPORTUNITY

Development of tourism facilities to service Mt Augustus

National Park in partnership with present tourist park operators. Investment will include:

- Land acquisition;
- Supporting infrastructure; and
- Construction.

CAPITAL COSTS

\$7.8 million.

TIMEFRAME

Short to medium term (One to five years).

LEGISLATIVE REQUIREMENTS

Proponents will need to negotiate legislative requirements with the park and other stakeholders.

PROJECT NAME

Carnarvon Old Justice Site Development

PROPONENT/LEAD AGENT

Department of Lands

CONTACT DETAILS

Regional Manager
Henty Farrar
Telephone: +61 8 6552 4400
Email: henty.farrar@lands.wa.gov.au
Website: www.lands.wa.gov.au

REGION/LOCATION

Carnarvon, Gascoyne

INVESTMENT OPPORTUNITY

Demolish former police and justice buildings, including two houses, and leave site ready for development into a tourism and civic hub:

- Land acquisition;
- Supporting infrastructure; and
- Construction.

This is part of the Western Australia Government's Land Asset Sales Program. Further information on other sites coming up may be found here: <http://www.lands.wa.gov.au/Crown-Land/Land-Asset-Sales/Pages/default.aspx>

CAPITAL COSTS

\$33 million.

TIMEFRAME

Short term (One to two years).

LEGISLATIVE REQUIREMENTS

Proponents will need to negotiate legislative requirements with the park and other stakeholders.

PROJECT NAME**Marina Facility Shark Bay**

PROPONENT/LEAD AGENT

Shire of Shark Bay

CONTACT DETAILS

Shire of Shark Bay
Chief Executive Officer
Paul Anderson
Telephone: +61 427 948 925
Email: CEO@sharkbay.wa.gov.au
Website: www.sharkbay.wa.gov.au

REGION/LOCATION

Shark Bay, Gascoyne

INVESTMENT OPPORTUNITY

Development of a commercial and recreational boating marina and associated facilities (100 to 200 berths). These activities have seen strong growth. The nearest marinas are more than

330 km away. The original site is 6.1 ha with ocean views across to Dirk Hartog Island and the Shark Bay World Heritage Area. Includes resort and residential development:

- Land acquisition;
- Supporting infrastructure; and
- Construction.

CAPITAL COSTS

\$300 million.

TIMEFRAME

Short to medium term (One to five years).

LEGISLATIVE REQUIREMENTS

Proponents will need to negotiate legislative requirements with the park and other stakeholders.

PROJECT NAME**Carnarvon One Mile Jetty**

PROPONENT/LEAD AGENT

Carnarvon Heritage Group

CONTACT DETAILS

Carnarvon Heritage Group
Chair
Chris Armstrong
Telephone: +61 8 9941 4309
Mobile: +61 427 411 812
Email: chris.armstrong@cfss.org.au
Email: carnarvonheritage@wn.com.au
Website: <http://www.carnarvonheritage.com.au/contact-us.aspx>

REGION/LOCATION

Babbage Island, Carnarvon, Gascoyne

INVESTMENT OPPORTUNITY

Construction of a new caravan park at the Carnarvon Heritage Precinct to provide additional tourist accommodation, and extending to an activated tourist precinct.

CAPITAL COSTS

\$4.5 million.

TIMEFRAME

Medium term (Three to five years).

LEGISLATIVE REQUIREMENTS

Nil.

PROJECT NAME**West Carnarvon Babbage Island Tourism Precinct**

PROPONENT/LEAD AGENT

Department of Lands

CONTACT DETAILS

Regional Manager
Telephone: +61 8 6552 4400
Website: www.lands.wa.gov.au

REGION/LOCATION

Carnarvon, Gascoyne

INVESTMENT OPPORTUNITY

A mix of well-planned and integrated tourism sites over the next 20 years including the design and construction of a 9-hole golf course (by the Shire of Carnarvon).

CAPITAL COST

To be confirmed.

TIMEFRAME

Short term to long term (One to six years).

LEGISLATIVE REQUIREMENTS

Proponents are required to negotiate the Land Tenure Pathway if applicable, negotiate with Shires, water utilities, and power suppliers.

PROJECT NAME

Sunday Island Bay Eco Accommodation, Dirk Hartog Island

PROPONENT/LEAD AGENT

DHI Development Pty Ltd

CONTACT DETAILS

Riverside Real Estate
Agent
Henry Willis
Telephone: +61 418 939 429
Email: henry@riverandsea.com.au
Website: www.riverandsea.com.au

REGION/LOCATION

Sunday Island Bay, Dirk Hartog Island National Park, Gascoyne

INVESTMENT OPPORTUNITY

Development of 33 luxury accommodation units at premier location – Lot 304 private freehold land. A Joint Venture will be considered and the development can be staged.

CAPITAL COSTS

\$30 million - \$40 million.

TIMEFRAME

Short to medium term (One to five years).

LEGISLATIVE REQUIREMENTS

Building approvals in place for first eight accommodation units.

PROJECT NAME

Francois Peron National Park, Shark Bay Project (under discussion)

PROPONENT/LEAD AGENT

Department of Parks and Wildlife Western Australia

CONTACT DETAILS

Department of Parks and Wildlife
Telephone: +61 8 9219 9000

REGION/LOCATION

Francois Peron National Park, Gascoyne

INVESTMENT OPPORTUNITY

An exceptional opportunity exists to create a responsible World Class Ecotourism facility within the Shark Bay World Heritage Area. Francois Peron National Park covers 52,000 ha with spectacular scenery, with a scenic coastline, dramatic contrasts of red cliffs, turquoise blue water and white beaches. The land available envelope is approximately 131 ha. This includes the building site and a large environmental buffer. The Shark Bay Marine Park is full of exciting marine flora and fauna south towards Monkey Mia. The site allows for a diverse approach to development style and design.

CAPITAL COSTS

\$30 million to \$40 million.

TIMEFRAME

Medium term (Three to five years).

LEGISLATIVE REQUIREMENTS

Regulatory approvals required.

An exceptional opportunity exists to create a responsible World Class Ecotourism facility within the Shark Bay World Heritage Area.

DEPARTMENT OF PARKS AND WILDLIFE TOURISM OPPORTUNITIES

The Department of Parks and Wildlife is responsible for preparing and implementing management plans for marine and terrestrial parks and reserves in accordance with the Conservation and Land Management Act 1984 and the management of lands and waters to which that act applies. Changes to legislation are under consideration for involving Aboriginal representatives further in the management of parks and related investments. It is likely that prospective investors will need to negotiate some future investments direct with Aboriginal groups through their representatives.

Opportunities for tourism development include all terrestrial and marine parks in the four regions of the Kimberley, Pilbara, Gascoyne and the Mid West regions. The department is the largest provider of nature-based tourism opportunities in Western Australia. Department of Parks and Wildlife manages more than 28 million ha of diverse land and water. Much of Western Australia's nature-based tourism is focused on experiences in protected areas (national parks, state forests, marine parks and other reserves) and often includes interaction with the State's unique wildlife in accordance with the Wildlife Conservation Act 1950.

Western Australia's parks offer great opportunities for exciting and more relaxed activities, guaranteed to satisfy every visitor's needs. Opportunities range from easy hikes and sheltered flat-water kayak paddles to hard-core rock climbs and black diamond mountain bike trails, from close-to-home day trips to once-in-a-lifetime wilderness expeditions.

Operators need to obtain a licence to undertake commercial activities and tours in protected areas. There are three sets of commercial opportunities:

- Naturebank;
- Non Identified Site Opportunities; and
- Aboriginal Tourism Opportunities.

Naturebank

Exceptional ecotourism development opportunities exist through the Naturebank government initiative that aims to prepare sites for development of quality environmentally sensitive tourism accommodation experiences in the State's national parks.

Release of Naturebank opportunities is by an open competitive process. Expressions of Interest are invited from private sector business developers with a business model that embraces responsible tourism practice and demonstrates a commitment to the environment and Aboriginal culture.

After evaluation of the expressions of interest, proponents on the shortlist are then invited to submit a full proposal. The successful proponent will be offered a performance based lease with social and environmental performance conditions that reflect the values of the area. In determining the period of lease offered to a successful proponent, consideration is given to the level of capital investment to be made and the operating risk. Naturebank is jointly managed through a partnership between the Department of Parks and Wildlife and Tourism Western Australia. Naturebank is intended to be an ongoing programme with new destinations and sites progressively added to the list of potential projects.

Non Identified Site Opportunities

Investors are invited to submit applications for development to the Department of Parks and Wildlife as identified by proponents. This investment avenue is encouraged and is of strategic importance. It is likely to grow in scale and scope because of the wide range of very unique nature based experiences on offer in each of the four regions. It includes opportunities for a range of markets to low priced product and product for the luxury market. Such proposals will be assessed on a case-by-case basis subject to consistency with management plans and benefits to the management of the reserves and to the State.

Aboriginal Tourism Opportunities

The Aboriginal population are descendants of generations that are known to have lived in Western Australia for more than 45,000 years. Common to the various cultures is a connection to "country", a more complex concept encompassing culture, environment, heritage and spirituality. Custodianship and the obligation to protect country is an important responsibility in the Aboriginal culture.

This is recognised in park management, allowing for traditional custodians to jointly manage parks with the Department of Parks and Wildlife, and for Aboriginal people to carry out customary practices in parks. Establishing quality Aboriginal tourism will provide unique Western Australian experiences and a point of difference to other destinations. In support of this, Department of Parks and Wildlife is encouraging registrations of interest from Traditional Custodians wishing to conduct Aboriginal cultural events on land managed by the Department of Parks and Wildlife, including national parks, marine parks, nature reserves and other conservation areas.

Establishing quality Aboriginal tourism will provide unique Western Australian experiences and a point of difference to other destinations.

PROJECT NAME**Department of Parks and Wildlife: Kimberley Region Tourism Opportunities**

PROPONENT/LEAD AGENT

Department of Parks and Wildlife

CONTACT DETAILS

Department of Parks and Wildlife
Telephone: +61 8 9219 9000

REGION/LOCATION

Kimberley

INVESTMENT OPPORTUNITY

The Kimberley is regarded as one of the last remaining wilderness areas on earth. Home to some truly extraordinary natural attractions, it is a destination that provides the visitor with the consummate Australian outback experience amidst a spectacular landscape. Wild, pristine rivers crisscross the landscape, a magnet for fishermen chasing the legendary Barramundi, or for wildlife enthusiasts looking to see the stunning array of flora and fauna which proliferate in the region. The Kimberley is home to many vast, remote and truly spectacular national parks. Limestone caves, plunging gorges, one of the world's largest meteorite craters and dazzling world heritage listed geological landmarks are just some of the attractions waiting to be experienced. There are more than 2,000 islands in the Kimberley coastal waters.

Purnululu National Park contains the Bungle Bungle Range. This is one of the most striking geological landmarks in Western Australia, offering a remote wilderness experience.

The Kimberley is an area of high biological diversity and a hotspot for its uniqueness, variety of habitats and species richness. High levels of threatened and endemic terrestrial species are found within the region. These include 126 endangered fauna species, 132 priority listed flora species, 11 threatened ecological communities, and a further 46 communities. At risk intact ecosystems have been protected on the many islands which make up extensive archipelagos off the coastline. The large river systems also provide important habitats for highly endemic species of freshwater fauna. Four wetlands of international significance, are listed on the Ramsar Convention for the conservation and sustainable use of wetlands, along with 21 nationally important wetlands and seven wetlands of subregional significance.

The Kimberley coast is spectacular. It stretches from Broome for over 3,000 kms to the Northern Territory border and is sheltered by the Buccaneer and Bonaparte Archipelagos, comprising of thousands of islands. Much of the coastal region has Aboriginal Reserve status. Commercial expedition cruises offer tours along the Kimberley coast and access to land-based attractions. The coastal environment provides habitat for important fauna species, including migratory waders, breeding seabirds, intertidal fauna, breeding turtles and pearl oysters.

The Kimberley Wilderness Parks has established the State's largest interconnected system of marine and terrestrial parks covering more than 5 million ha. See Figure 10. Investment opportunities will include:

- Land leases;
- Supporting infrastructure; and
- Construction.

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the regional economies:

- Create significant investment and job opportunities especially for local Aboriginal people;
- Add significantly to the quality of marketable tourism in the regions;
- Construction of facilities and supporting infrastructure; and
- Support existing tourism products and services.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with parks and conservation areas near to all towns and regions in the north west.

CAPITAL COSTS

Dependent on proponent estimates by facility, in the region of \$5 million to \$50 million.

TIMEFRAME

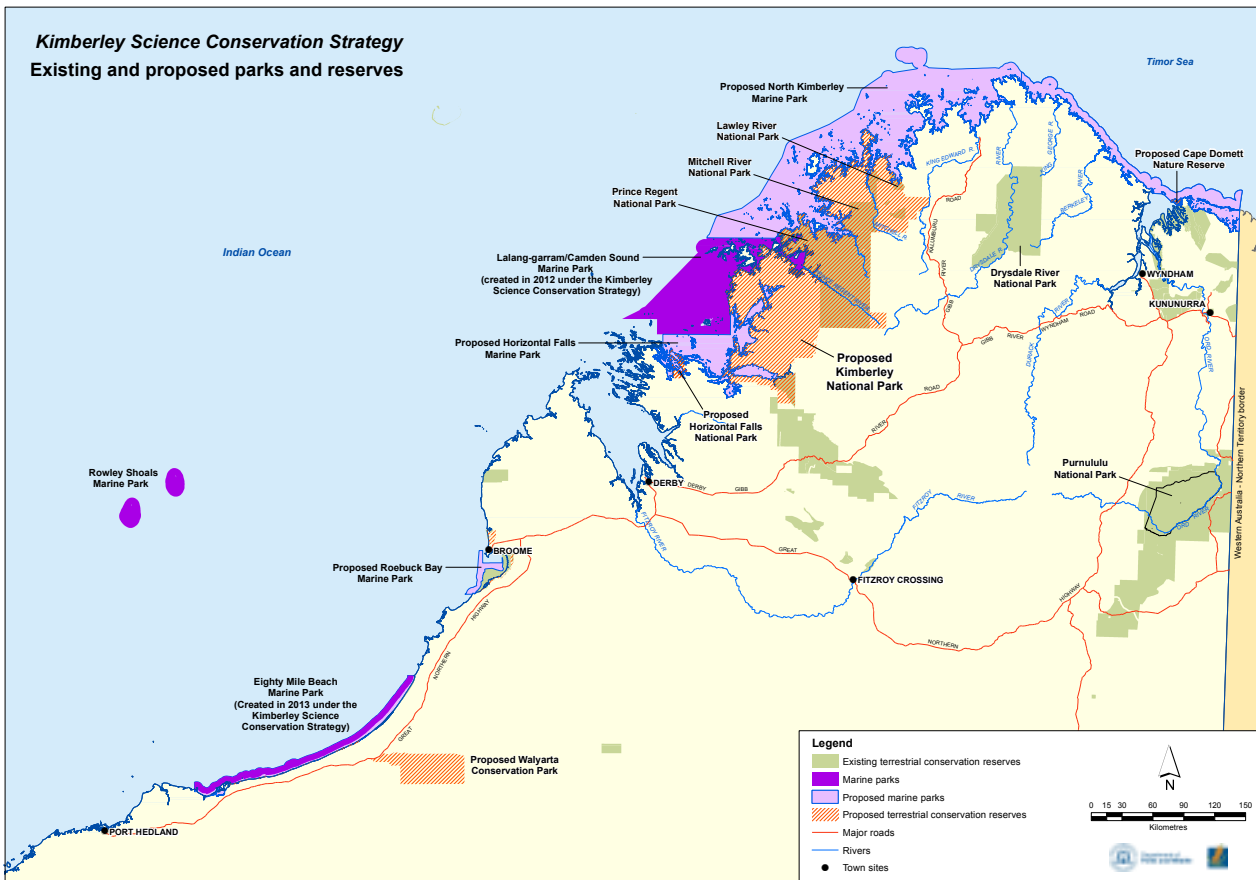
Short term: Tendering and selection.
Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the Department of Parks and Wildlife and Aboriginal traditional landowners.



Figure 10: Kimberley Existing and Proposed Parks and Reserves



PROJECT NAME

Department of Parks and Wildlife: Pilbara Region Tourism Opportunities

PROPONENT/LEAD AGENT

Department of Parks and Wildlife

CONTACT DETAILS

Department of Parks and Wildlife
 Telephone: +61 8 9219 9000

REGION/LOCATION

Pilbara

INVESTMENT OPPORTUNITY

The Pilbara is a region of contrasts with many natural attractions to explore. Home to island reserves, a marine park and stunning beaches, the Pilbara offers world-class diving, snorkelling and fishing with amazing marine diversity.

Covering 627,422 ha just north of the Tropic of Capricorn in the Hamersley Range, **Karijini National Park** is Western Australia’s second largest park. Massive mountains and escarpments rise out of the flat valleys. The high plateau is dissected by

breathtaking gorges, tree-lined watercourses wind their way over the dusty plain. Erosion has slowly carved this landscape out of rocks that are over 2,500 million years old. The park is the traditional home of the Banyjima, Kurruma and Innawonga Aboriginal people.

The Dampier Archipelago is a chain of 42 coastal islands, islets and rocks, where divers may explore coral reefs, while other visitors swim or relax on the beach.

The Montebello Islands Marine Park has more than 58,000 ha of ocean surrounding 265 low-lying islands and islets that are fringed by coral reefs populated with colourful tropical fish.

Millstream Chichester National Park is an oasis in the desert nestled within the chocolate brown rocks of the Chichester Range dotted with spinifex and snappy gums.

Murujuga National Park has the distinction of being the 100th National Park declared in Western Australia. It hosts the largest concentration of rock art in the world.

Karlamilyi National Park is Western Australia's largest and most remote national park, located between the Great Sandy Desert and the Little Sandy Desert. The 1.3 million ha embraces desert dunes, spinifex grasslands, salt lakes, weathered plateaus and escarpments of sandstone and quartzite.

Collier Range National Park is a remote national park in the east of the Pilbara region. The ranges vary from low hills to high ridges with many cliffs.

Barrow Island Marine Park is a significant breeding and nesting area for threatened sea turtles and its waters support important coral reefs and a diversity of tropical marine animals. The 4,100 ha park, on the western side of Barrow Island, contains Biggada Reef, one of only two significant fringing reefs in the Montebello/Barrow Island reserve system.

Investment opportunities are diverse, including a range of accommodation and services. Investments will include:

- Land leases;
- Supporting infrastructure; and
- Construction.

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the regional economies:

- Create significant investment and job opportunities;
- Add significantly to the quality of marketable tourism in the regions;
- Construction of facilities and supporting infrastructure; and
- Support existing tourism products and services.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with parks and conservation areas near to all towns and regions in the north west.

CAPITAL COSTS

Dependent on project estimates by facility, in the region of \$5 million to \$50 million.

TIMEFRAME

Short term: Tendering and selection.
Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the Department of Parks and Wildlife and Aboriginal traditional landowners.

PROJECT NAME

Department of Parks and Wildlife: Gascoyne and Mid West Coral Coast Tourism Opportunities

PROPONENT/LEAD AGENT

Department of Parks and Wildlife

CONTACT DETAILS

Department of Parks and Wildlife
Telephone: +61 8 9219 9000

REGION/LOCATION

Gascoyne and Mid West

INVESTMENT OPPORTUNITY

The Gascoyne and Mid West region includes part of the coral coast of Western Australia, which is amongst the most beautiful on earth. It has 45,000 years of history and 1,100 kms of stunning coastline from the Pinnacles, Kalbarri National Park and Shark Bay World Heritage Area to the dolphins of Monkey Mia and the incredible Ningaloo Reef, where it is possible to swim with the world's largest fish, the whale shark.

Ningaloo Reef is the largest fringing reef on Earth. The Pinnacles is a desert moonscape. Kalbarri consists of dramatic landscapes, where 400 million year old river gorges meet the Indian Ocean. The coral coast boasts a fascinating, often brutal maritime history and heritage.

Additional product requirements are for a range from services to accommodation. Of particular interest is luxury eco-tourism. Investment will include:

- Land leases;
- Supporting infrastructure; and
- Construction.

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the regional economies:

- Create significant investment and job opportunities;
- Add significantly to the quality of marketable tourism in the regions;
- Construction of facilities and supporting infrastructure; and
- Support existing tourism products and services.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with parks and conservation areas near to all towns and regions in the north west.

CAPITAL COSTS

Dependent on project estimates by facility, in the region of \$5 million to \$50 million.

TIMEFRAME

Short term: Tendering and selection.
Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the Department of Parks and Wildlife and Aboriginal traditional landowners.

PROJECT NAME

Department of Parks and Wildlife: Gascoyne region - Inland Tourism Opportunities

PROPONENT/LEAD AGENT

Department of Parks and Wildlife

CONTACT DETAILS

Department of Parks and Wildlife
Telephone: +61 8 9219 9000

REGION/LOCATION

Gascoyne

INVESTMENT OPPORTUNITY

The Gascoyne features Mount Augustus. The Gascoyne has rich, red earth, rugged ranges, ancient rock features, vast sheep and cattle stations and Aboriginal culture.

Mount Augustus National Park has a monocline, which is a beacon to outback travellers and bushwalkers within an extensive surrounding sandplain of desert scrubland plants and animals. Mount Augustus, is known as Burringurrah to the local Wajarri Aboriginal people. The rock is about 8 km long and twice the size of Uluru in central Australia. The Kennedy Range National Park has an extensive, elevated plateau, the Kennedy Range, and supports a diversity of arid wildlife communities and attracts bushwalkers and campers.

Investment will include:

- Land leases;
- Supporting infrastructure; and
- Construction.

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the regional economies:

- Create significant investment and job opportunities;
- Add significantly to the quality of marketable tourism in the regions;
- Construction of facilities and supporting infrastructure; and
- Support existing tourism products and services.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with parks and conservation areas near to all towns and regions in the north west.

CAPITAL COSTS

Dependent on project estimates by facility, in the region of \$5 million to \$50 million.

TIMEFRAME

Short term: Tendering and selection.
Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the Department of Parks and Wildlife and Aboriginal traditional landowners.

Mount Augustus National Park has a monocline, which is a beacon to outback travellers and bushwalkers within an extensive surrounding sandplain of desert scrubland plants and animals.

PROJECT NAME

Department of Parks and Wildlife: Mid West Inland Tourism Opportunities

PROPONENT/LEAD AGENT

Department of Parks and Wildlife

CONTACT DETAILS

Department of Parks and Wildlife
Telephone: +61 8 9219 9000

REGION/LOCATION

Mid West

INVESTMENT OPPORTUNITY

Badgingarra National Park is 13,108 ha and features high breakaway country overlooking low undulating sandplains. The park is renowned for its incredible diversity of indigenous and rare wild flowers.

Coalseam Conservation Park is a small reserve rich in history and geology. It is the site of the first mined coal deposit in Western Australia, and exposed bands of coal seams can still be seen, along with the siltstones, claystones and sandstones that stripe the cliff faces and reveal 250 million years of geological history. Due to its rugged topography Coalseam Conservation Park has remained uncleared and is now a pocket of wilderness in the surrounding open farmland.

Kalbarri National Park is one of Western Australia's best known parks, with its scenic gorges through red and white banded sandstone and its soaring coastal cliffs. The Park surrounds the lower reaches of the Murchison River, which has cut a magnificent 80 km gorge through the red and white banded sandstone to create formations such as Nature's Window, The Loop, Z-Bend and Hawks Head, with scenic gorge views at the Ross Graham Lookout and views of the town and river mouth at Meanarra Hill.

Lesueur National Park is one of the most important flora conservation reserves in Western Australia. It erupts into colour in late winter and spring as the park's diverse flora flowers, making it a paradise for wildflower enthusiasts. It is home to over 900 plant species, 10% of Western Australia's known flora. Landforms in the park vary from salt lakes and remnant coastal dunes in the north west through to laterite ridges in the east.

Nambung National Park has thousands of huge limestone pillars which rise from the shifting yellow sands of the Pinnacles Desert, resembling a landscape from a science fiction movie.

Tathra National Park contains over 2,600 species of plants.

Watheroo National Park covers a total span of 44,324 ha and is home to the Jingemina Cave.

Investment will include:

- Land leases;
- Supporting infrastructure; and
- Construction.

ECONOMIC BENEFITS

Further tourism facilities will add to the diversification of the regional economies:

- Create significant investment and job opportunities;
- Add significantly to the quality of marketable tourism in the regions;
- Construction of facilities and supporting infrastructure; and
- Support existing tourism products and services.

CROSS REGIONAL BENEFITS

There are substantial cross regional benefits, with planning of regionally linked itineraries with parks and conservation areas near to all towns and regions in the north west.

CAPITAL COSTS

Dependent on project estimates by facility, in the region of \$5 million to \$50 million.

TIMEFRAME

Short term: Tendering and selection.
Medium term: Construction and marketing.

LEGISLATIVE REQUIREMENTS

Land use needs to be negotiated with the Department of Parks and Wildlife and Aboriginal traditional landowners.

Kalbarri National Park is one of Western Australia's best known parks, with its scenic gorges through red and white banded sandstone and its soaring coastal cliffs.



Small and Medium Size Enterprises (SME) Investment Opportunities

07

ASSETS

The SME sector in the regions is an important contributor to economic growth and business opportunities. There are about 9,660 SMEs in the four regions (Kimberley: 2,400; Pilbara: 1,260; Gascoyne: 1,000; Mid West: 5,000). The Mid West has a strong small business sector, with its SMEs representing almost 96% of the region's private sector businesses and employing approximately 45% of all private sector workers. All main centres have vibrant representative Chambers of Commerce and Industry and many have government funded Small Business Centres providing support services.

The local business environment is changing as business expenditure and investment shifts from predominantly a construction focus to operations and maintenance in the mineral based economies in the regions, in particular in the Pilbara region. SMEs are focussing on increasing capacity to service the needs of a growing population and large-scale resource extraction operations, and increasingly a more diversified economy. Most of the local businesses are classified in the construction, rental, real estate, warehousing, logistics, and tourism industries in the Pilbara and elsewhere, whilst remaining closely associated with the minerals and energy sectors. In the Kimberley, Gascoyne and the Mid West region many SMEs are in the agriculture, forestry and marine industries.

There are a number of Aboriginal owned SMEs and Aboriginal Corporations are becoming major investors in several sectors of the economy.

OPPORTUNITIES

It is anticipated that the number of SMEs will double by 2036. A range of State Government initiatives will help drive investment in tourism, agribusiness and aquaculture, providing ongoing opportunity for related small business operators.

Opportunities include:

- Diversification of the regional economy;
- Diverse, robust and resilient small and medium businesses taking advantage of a growing population base that are innovative, entrepreneurial and use technologies to address operational challenges and access new markets;
- Full incorporation into mining, agriculture, energy, aquaculture and major project supply chains, leverage the reputation of the regions as a quality and reliable supplier and will actively target opportunities in Asia;
- Development of strong links with Aboriginal enterprises and corporations;
- One hundred percent availability of connection to high speed internet through national broadband; and
- Establish small business incubators.





Education and Health Investment Opportunities

08

A. EDUCATION

ASSETS

The regions all have primary schools in the main centres and most have high schools as well, but with different levels of course availability. In addition there are a range of vocational training institutes and specialised educational centres.

The Kimberley has 10 primary and senior schools in towns and 12 remote schools. There are two technical training institutes in Broome and Kununurra and one university in Broome (Notre Dame).

The Pilbara has 25 primary and secondary public sector schools. There are four privately owned schools; two of which are primary schools, one is secondary and one is both primary and secondary (two each in Karratha and Port Hedland). Access to tertiary and further education is improving noticeably in the Pilbara. Two universities have a regional base in the region: The Rural Clinical School of the University of Western Australia is located in Port Hedland and Karratha, and Curtin University delivers select courses in humanities and business through Karratha and Port Hedland. The campus-style tertiary education experience for numerous courses, however, requires students to leave the region and attend universities in major rural or metropolitan areas.

The Pilbara Institute, formerly TAFE, is a major vocational training provider in the region offering a range of courses through its campuses in Karratha and South Hedland (including Pundulmurra campus). The Pilbara Institute offers training in over 118 qualifications such as community services and health including nursing and aged care, business services, horticulture, and trades training to apprentices and trainees. Pathways programmes are offered to school students and those students keen to gain relevant skills for employment.

The Gascoyne has 11 primary and secondary schools most of which are in the public sector, with one privately owned primary school and one private secondary school. There are also two institutes of technology and one "school of the air". There are currently no education providers in the Gascoyne offering a comprehensive range of subjects face-

to-face and on-site through to Year 12. Many Year 11 and 12 subjects are offered through correspondence and distance education supported through metropolitan based providers.

There are a variety of agencies and institutions in the Mid West region that support the delivery of higher education, research and tertiary attainment. The region has a range of public, private, independent, remote and specialist schools. In 2013 the Mid West region had almost 50 schools with 10,794 enrolments from Kindergarten to Year 12. Other educational facilities include the Durack Institute of Technology (Durack), Geraldton Universities Centre (GUC), the Western Australia Centre for Rural Health (WACRH) and the RCS. Significant recent investment has taken place in the sector, providing the Mid West region with state of the art higher education and training facilities and infrastructure. The region has a range of quality education, training and tertiary institutions that offer diverse secondary and post high schooling options.

Since 2006 Durack has also operated the Batavia Coast Maritime Institute (BCMI) within the broader Separation Point Marine Precinct (SPMP) in Geraldton. The SPMP was established as a world-class marine education, training and industry research centre, which along with BCMI, incorporates a Department of Fisheries operated Abrolhos Islands Research Institute supporting local marine research.

The GUC is an independent, not for profit, organisation supporting the delivery of university courses in Geraldton in partnership with universities Australia-wide. The GUC site also houses the Murchison radio-astronomy support facility, which has dedicated access to the Pawsey High Performance Computing Centre in Perth. The WACRH was established to improve rural, remote and Aboriginal health through research, education, student support and community

service activities. It is the only university department of rural health in Western Australia and one of 11 Australia-wide.

OPPORTUNITIES

Well-educated, trained and skilled regional populations are fundamental to social and economic development. There are new opportunities across a spectrum of education and training:

- Schools, technical training colleges and universities will need to expand their premises and/or new facilities will need to be constructed to at least double the potential number of students;
- There is a need to build strong viable schools with a hub and spoke model that combines boarding away from home and transport options to ensure sustainable student populations at all district high schools;
- Vocational and technical education services, that are industry integrated, need to be accessible across the region; and
- Virtual learning will become more prevalent. Western Australia operates in the same time zone as east Asia, which offers opportunities for virtual lessons between Mid West and Chinese schools, as currently being initiated by Geraldton Grammar School.

PROJECT NAME

Shire of Broome (Kimberley) – Education

PROPONENT/LEAD AGENT

Shire of Broome

CONTACT DETAILS

Economic Development Manager
Telephone: +61 8 9191 3456
Address: 27 Weld St, Broome Western Australia 6725

Office of Marketing & Communications
The University of Notre Dame Australia
Marketing & Communications Officer
Adelene Gumina
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Western Australia 6959
Telephone: +61 8 9433 0594
Mobile: +61 424 139 569
Email: adelene.gumina@nd.edu.au

Kimberley Training Institute Broome (West Kimberley)
Managing Director
Karen Dickinson
Telephone: +61 9192 9104
Mobile: +61 408 941 102

REGION/LOCATION

Broome, Kimberley

FUTURE INVESTMENT OPPORTUNITY

Education opportunities are based on:

- Broome's comprehensive education sector underpins workforce development and growth across the region;
- Broome has:
 - Four Government primary schools (with a new school opened in 2015);
 - One Government secondary school (Broome Senior High School was the top high school in Western Australia in 2013 and is ranked in the top ten for government school ATAR results);
 - One Catholic College, Kindergarten – Year 12 school;
 - A residential college for secondary school students;
 - Kimberley Training Institute;
 - The University of Notre Dame Australia's Broome Campus; and
 - Specialised registered training organisations.
- On leaving secondary education students can undertake further vocational studies with Kimberley Training Institute or participate in Tertiary Pathways programmes through Broome's Notre Dame University campus;
- With over 4,500 students annually, Kimberley Training Institute (KTI) is the local and largest provider of vocation education and training in North West Australia. KTI offers 160 courses, personalised training, business partnerships and excellent student services and support. KTI's world-class facilities include the Broome Maritime Simulation Centre, the Broome Aquaculture Centre, a state of the art Trades Training Centre and the Balu Buru Horticultural Research Centre;

- The Broome Maritime Simulation Centre (BMSC) is based at the Kimberley Training Institute's head office in Broome. The Centre specialises in state of the art maritime simulation services for new and existing ports. Providing services for the research and design phases of new port development through to the operational procedures for existing port operators, the BMSC has carried out numerous projects for Australian and international clients over the past four years;
- KTI's training facilities and programmes are constantly expanding in response to new opportunities in agribusiness, marine services, oil and gas, tourism and aquaculture. Partnerships are continuously forged with companies like Shell, Buru Energy, Inpex, Sheffield Resources and Aboriginal corporations to support future workforce planning and development;
- Notre Dame's Broome Campus is a unique and multi-faceted research, education and training hub offering education opportunities including Vocational Education and Training (VET), tertiary pathway programmes, professional development, cultural awareness, first aid and higher degree and research opportunities;
- As a Registered Training Organisation (RTO), Notre Dame provides VET courses in health services, nursing and education support developed in consultation with industry sectors so students graduate job-ready;
- Further to the University's commitment to reconciliation between Aboriginal and Torres Strait Islander people and the broader Australian community, Notre Dame's Nulungu Research Institute creates educational pathways for Kimberley communities, valuing Indigenous knowledge systems; investing in Aboriginal skills knowledge and research at the individual, community, regional and national level; and
- Broome also has RTOs specialising in vocational training in health, construction, mining trades and media.

Education facilities construction and programmes need to constantly expand in response to the rapidly increasing populations and new opportunities in the different business sectors for employment to support future workforce planning and development.

The basis for development of an education hub exists which promotes both demand from prospective students and investors alike.

CAPITAL COSTS

To be confirmed.

TIMEFRAME

Medium and long term (Two to ten years).

LEGISLATIVE REQUIREMENTS

Proponents will be required to negotiate the Land Tenure Pathway administered by the Department of Lands. This may include negotiations concerning Native title in certain instances.



B. HEALTH

ASSETS

The regions all have public hospitals that vary in terms of the types of service delivery available. There are also nursing posts in smaller towns, mobile services and the Flying Doctor service. The Pilbara and the Mid West region have comprehensive, modern facilities in the main towns.

The \$208 million Karratha Health Campus (KHC) is under construction. The KHC will provide primary health care services to residents of the City of Karratha as well as acting as a hub for smaller communities such as Roebourne, Wickham, Tom Price, Pannawonica, Onslow and Paraburdoo. In 2010, the \$138 million contemporary Hedland Health Campus (HHC) brought together an array of primary and allied health-related services which were previously spread over a number of sites in South and Port Hedland.

Geraldton is one of only two non-metropolitan cities in Western Australia

with public and private hospitals with a full suite of medical and specialist services, and an Aboriginal Medical Service, providing access to a broad range of specialist health services. Western Australia Country Health Services provides smaller hospitals, nursing posts and health centres at a number of locations including Cue, Dongara, Kalbarri, Meekatharra, Morawa, Mount Magnet, Mullewa, North Midlands, Northampton, Sandstone and Yalgoo. There are a number of major primary health care organisations within the region providing a wide range of health services. There are some 80 Non-Government Organisations groups in the Mid West region providing human services to people managing social issues or experiencing some form of disadvantage or hardship.

OPPORTUNITIES

As populations grow, there will be a need for additional health facilities in which the private sector can participate. The pressures on services as a result of ageing populations are increasing.

Mid West communities, with relatively large retirement populations such as Kalbarri and Dongara, already experience significant pressures on services and infrastructure, with this pattern likely to grow in these attractive, temperate coastal locations. Inland communities also face significant demands from residents who wish to 'age in place' and face pressures of providing services and infrastructure. This also presents opportunities as it will necessitate growth in the service sectors to support delivery of services to this age cohort. Aged care accommodation is already a significant challenge in Mid West communities, with this trend expected to increase pressure on housing stocks for older residents.

There are currently limited residential aged care facilities apart from in Geraldton and Karratha, with the exception of a dedicated Permanent Care Unit at the Carnarvon Health Campus, which caters for both low and high care residents.

Geraldton is one of only two non-metropolitan cities in Western Australia with public and private hospitals with a full suite of medical and specialist services, and an Aboriginal Medical Service, providing access to a broad range of specialist health services.



SECTION C

Review of Regulatory Pathways

Most projects, particularly in regional or remote areas require a number of regulatory approvals before commencement. This section using flowcharts highlights some of the major pathways that a project proponent may encounter in the process of bringing their project to fruition.

It is important to note that the pathways are for information purposes only and do not convey any rights or obligations on any parties and may not be considered as providing legally binding information. In addition regulatory pathways can change and any investor should contact directly the relevant agency to ensure that they understand the current requirements. It should also be noted that the names of Government Departments may change over time.

Approvals and advice for proposals are given by the following State and Federal agencies²²:

Agency	Indicative Approvals/Advice
Department of Environment (Federal Government)	Environmental protection and biodiversity control in relation to the Environmental Protection Biodiversity Conservation Act 1999 and its regulations.
Environmental Protection Authority	<ul style="list-style-type: none"> • Assess and provide public advice on proposals likely to have a significant effect on the environment; and • Develop statutory policy and advice to protect the environment.
Foreign Investment Review Board (Federal Government)	Privately-owned foreign investors and government investors alike must receive approval from the Treasury's Foreign Investment Review Board (FIRB) before making substantial investments in Australian businesses.
Department of Aboriginal Affairs	<ul style="list-style-type: none"> • Assessment and advice on proposals likely to have an effect on Aboriginal heritage; • Assessment and advice on access to and use of lands held by the Aboriginal Lands Trust; and • Develop administrative policy and advice to protect Aboriginal heritage and manage lands held by the Aboriginal Lands Trust.
Department of Environment Regulation	<ul style="list-style-type: none"> • Environmental Regulation — regulate activities with potential impacts on the environment; • Environmental Policy —develop and implement policies and strategies that promote environmental outcomes; and • Waste Strategies —reduce the environmental impact of waste.
Department of Fisheries	Serves to regulate fishing and pearling activities. It provides licensing, leasing, and management requirements for establishing an aquaculture operation.
Department of Health	Provides advice and guidelines on: <ul style="list-style-type: none"> • Acceptable use and background levels of hazardous substances; • Provide permits to use some substances in approved areas; and • Regulation of <i>Health Act, 1911</i>.
Department of Lands	Assembles, delivers and manages Crown land for particular uses in accordance with the statutory provisions of the Land Administration Act 1997.

²² State unless otherwise indicated

Agency	Indicative Approvals/Advice
Department of Planning	Provides advice and assistance to the public on: <ul style="list-style-type: none"> • Land-use planning and local government structure planning; • Processing of statutory approvals for subdivision, strata title and development applications; • Assessment of local planning schemes and scheme amendments; and • Region planning schemes.
Western Australian Planning Commission	Responds to the strategic direction of government on urban, rural and regional land-use planning and land development matters throughout Western Australia. The WAPC is a statutory authority and operates with the support of the Department of Planning.
Department of Local Government and Communities	Administers a number of acts of parliament covering a wide range of issues, and develops and amends acts and regulations within its responsibility. Each local council has a number of responsibilities in particular regarding building codes, land subdivision and zoning.
Department of Mines and Petroleum	Licences and advice including on: <ul style="list-style-type: none"> • Tenure for exploration and development projects; • Environmental plans; • Petroleum pipeline licences; • Facilitation of native title agreements; • Occupational safety and health; and • Dangerous goods.
Department of State Development	Assists qualifying investors with navigating the Western Australia Government's approval processes. It also works with proponents of major projects to put together favourable conditions for investment in contracts known as State Agreements.
Department of Transport	<ul style="list-style-type: none"> • Integrated transport planning that arises from, and meets, the aims of state development planning; • Major transport infrastructure projects; and • Evaluating the transport economics of different transport solutions.
Department of Water	Issues licences and permits under the Rights in Water and Irrigation Act 1914 to: <ul style="list-style-type: none"> • Take water; • Construct wells and bores; • Interfere with the bed and banks of a watercourse; • Grants permits under the Country Areas Water Supply Act 1947 to clear native vegetation near water; and • Water management issues that need to be considered in mine planning.

The following regulatory pathways impacting on investment have been prepared:

LEAD AGENCY FRAMEWORK - OVERVIEW

State Agreements have been used over the past 50 years to foster major developments, including mineral, petroleum and related downstream processing proposals, together with associated infrastructure investments. Such proposals require long term certainty, extensive or complex land tenure and are often located in relatively remote areas of the State requiring significant infrastructure development.

A lead agency provides a single entry point for proponents, coordination of the approvals process across government for all proposals, case management of proposals throughout the approvals process and guidance and information on the approvals process. The Lead Agency Framework applies to all proposals no matter their size, complexity or environmental, economic or social impact. The WA Department of the Premier and Cabinet has issued a guideline for implementation of the Framework.

The lead agency approach requires that assistance with, or coordination of, approvals for a proposal to be administered by one department. This agency is responsible for providing proponents with information on statutory requirements and coordinating the necessary approval processes. This includes assisting proponents to identify the potential impacts of the proposal on matters such as infrastructure, the environment and regional communities as well as the social considerations that arise from the proposal. Lead agencies will consult on each proposal with relevant agencies. Statutory roles and functions currently assigned to agencies remain unchanged.

In broad terms, the Lead Agency Framework operates by:

- Nominating a single agency responsible for case management, either through existing (or upgraded) project tracking systems, or through an identified case manager within the lead agency; and
- Scoping the proposal upfront and determining the approvals required, identifying the potential for approvals under Commonwealth legislation and setting indicative timeframes.

Example: Department of State Development

Department of State Development (DSD) is the lead agency for major resource and industry infrastructure proposals. DSD is also the contact point for Infrastructure Australia across government. DSD will be the project proponent for identified major industry infrastructure proposals (State Initiated Projects). DSD will have the lead proposal facilitation role for new proposals or expansions of existing proposals where the proposed investment is significant or of strategic importance. This includes expansions under existing State Agreements, and very large and/or complex proposals with particular strategic importance to the State. DSD and the Department of Mines and Petroleum (DMP) have reached agreement on which resource proposals fall under the jurisdiction of DSD.

DSD is the agency responsible for administering various State Agreement Acts. State Agreements are contracts between the Government of Western Australia and proponents of major resources and infrastructure proposals, which are ratified by an Act in State Parliament. A State Agreement Act will normally require tenure to be granted by the Minister for Lands, for particular purposes and in specified areas, pursuant to the *Land Administration Act 1997 (WA)*.

Level 1: Such a proposal would be characterised as being moderate in scale and capable of being accommodated through existing environment, social and economic processes.

Assistance provided: DSD will provide initial advice and support through an appointed project officer. Service would include referral and introduction to relevant departments (e.g. DMP for mineral or petroleum proposals).

Level 2: These proposals would tend to be new proposals or expansion of existing projects where the proposed investment is significant or of strategic importance. Most expansions under State Agreements would fall into this category.

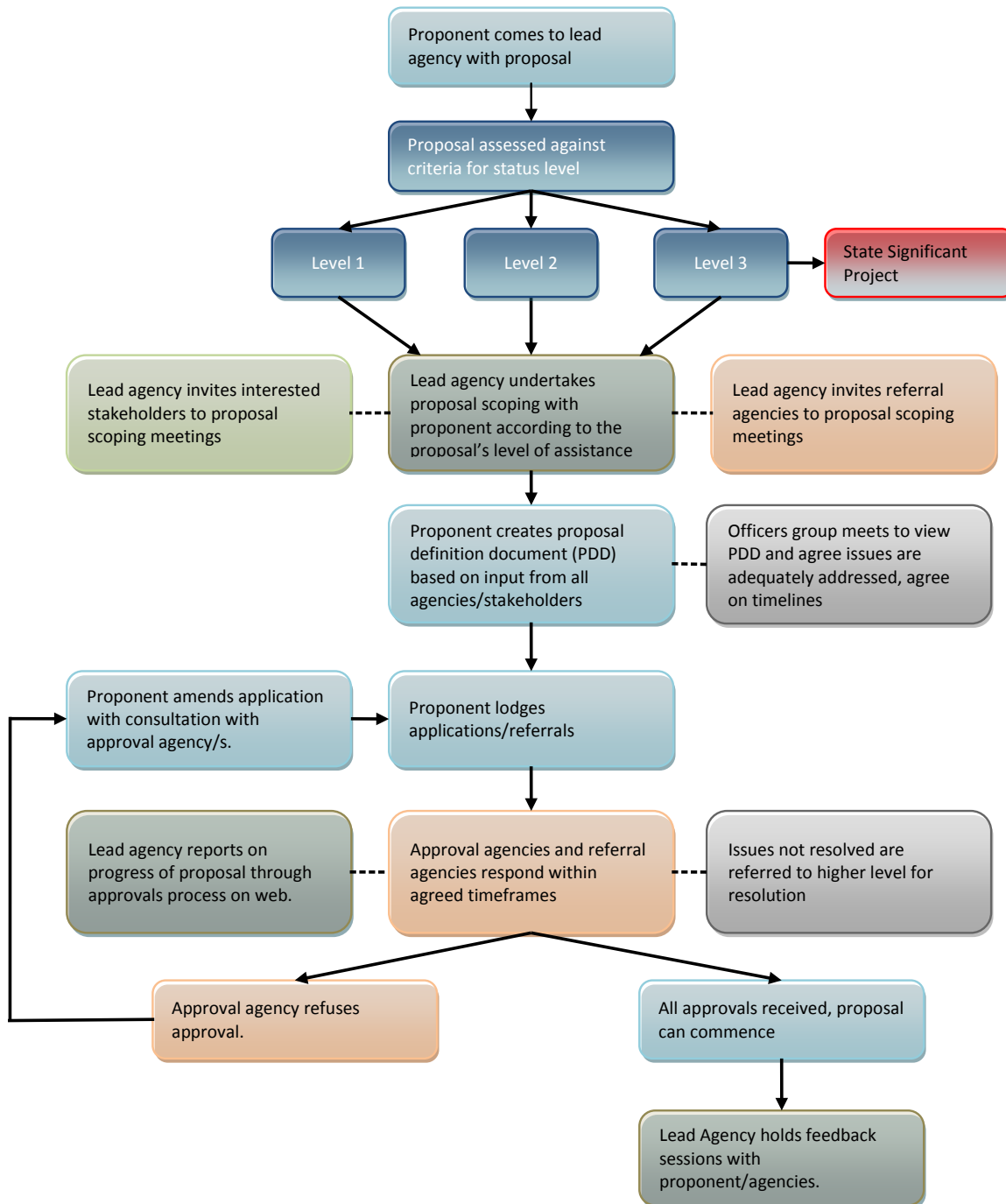
Assistance provided: DSD will assign a project manager to assist with Government related aspects of proposal definition, infrastructure, industrial land, regional issues, coordination and interaction with agencies in relation to key statutory approvals.

Level 3: These proposals would usually be very large and/or complex proposals with particular strategic importance to the State Government.

Assistance provided: DSD will establish a senior project coordination team to assist with Government related aspects of proposal definition, infrastructure, industrial land, regional issues, coordination of key statutory approvals and if requested by Government, negotiation of a State Agreement.

Roles and Responsibilities of Lead Agencies

Coordination of approvals under lead agency framework.



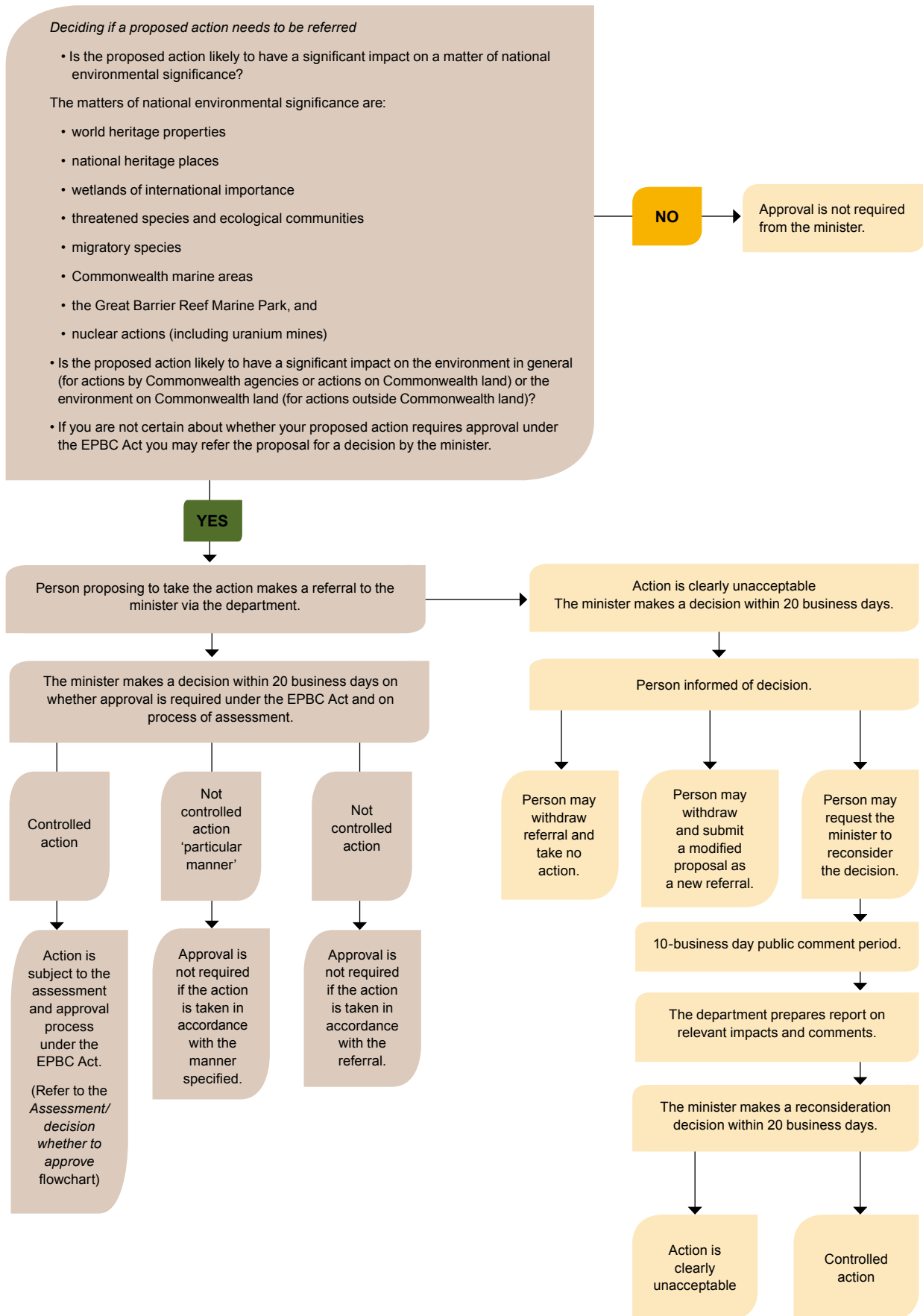
AUSTRALIAN DEPARTMENT OF THE ENVIRONMENT

The Department of the Environment designs and implements the Australian Government's policies and programmes to protect and conserve the environment, water and heritage and promote climate action.

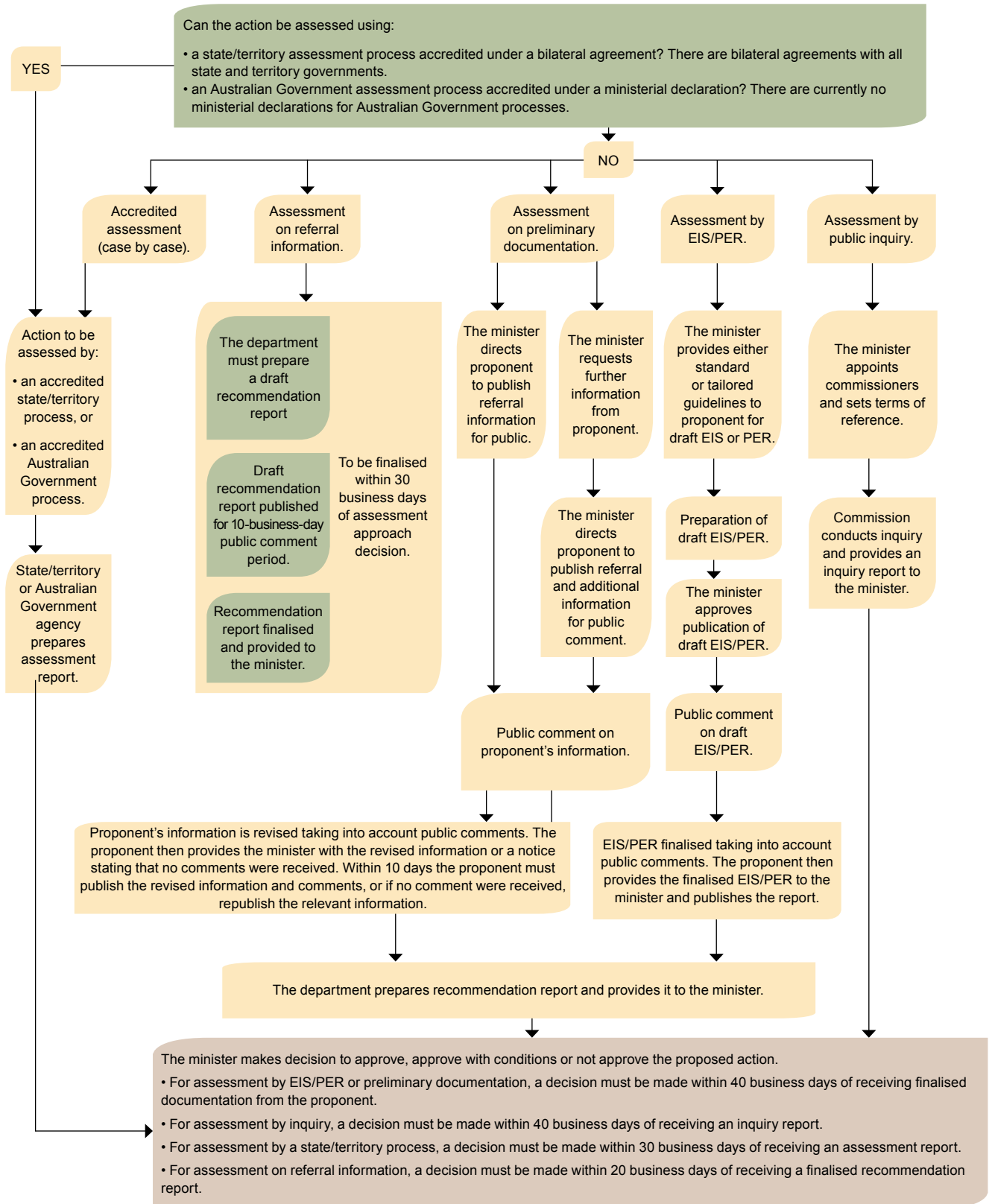
The Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) enables the Australian Government to work with the states on environmental issues. The Australian Government focuses on the protection of matters of national environmental significance, with the states and territories having responsibility for matters of state and local significance. Part of the EPBC Act is to recognise and promote the role of Indigenous people in protecting the environment and making their concerns part of the decision making process.

The Department of Environment enforces the EPBC Act and assesses any projects that may have a detrimental effect on the environment, and provides permits for allowable projects.

EPBC Act Environment Assessment Process – Referral



EPBC Act Environment Assessment Process – Assessment/Decision Whether To Approve



WESTERN AUSTRALIAN ENVIRONMENTAL PROTECTION AUTHORITY

The Environmental Protection Authority (EPA) is an independent board that provides recommendations to the Minister for Environment. It is not subject to direction by the Minister, and all of its advice is public.

The EPA has a broad mandate to protect the environment and minimize pollution. Its functions are as follows:

- Conduct environmental impact assessments;
- Prepare statutory policies for environmental protection;
- Prepare and publish guidelines for managing environmental impacts; and
- Provide strategic advice to the Minister for Environment.

The Environmental Impact Assessment (EIA) is a requirement for works and projects that may have an adverse impact on the environment. It is important for any project proponent to communicate with the EPA while preparing a report for the EIA. There are three major types of EIA explained in the following pages:

1. No Public Review;
2. Assessment on Proponent Information (Type A and B); and
3. Public Environmental Review.

Source: Western Australia Environmental Protection Authority

ENVIRONMENTAL PROTECTION AUTHORITY: ASSESSMENT ON PROPONENT INFORMATION

The Assessment on Proponent Information (API) level of assessment provides for assessment of a proposal where the environmental acceptability or unacceptability of the proposal is apparent at the referral stage. An API may not be necessary (“No Public Review”) if the proponent has appropriately and effectively consulted with the stakeholders during the preparation of the proposal and further consultation through a public review process.

There are two types of API. Type A is generally conducted when the proposal raises a limited number of key environmental factors that can be readily managed and for which there is an established condition-setting framework and is consistent with established environmental policies, guidelines, and standards.

Type B is conducted when it is apparent at the time of referral that the proposal is likely to have a significant detrimental impact on the environment or is inconsistent with established environmental policies, guidelines, and standards.

Detailed information on the API level of assessment and the criteria for both types can be found in the *EIA Administrative Procedures 2012*, and simple process diagrams for each are below.

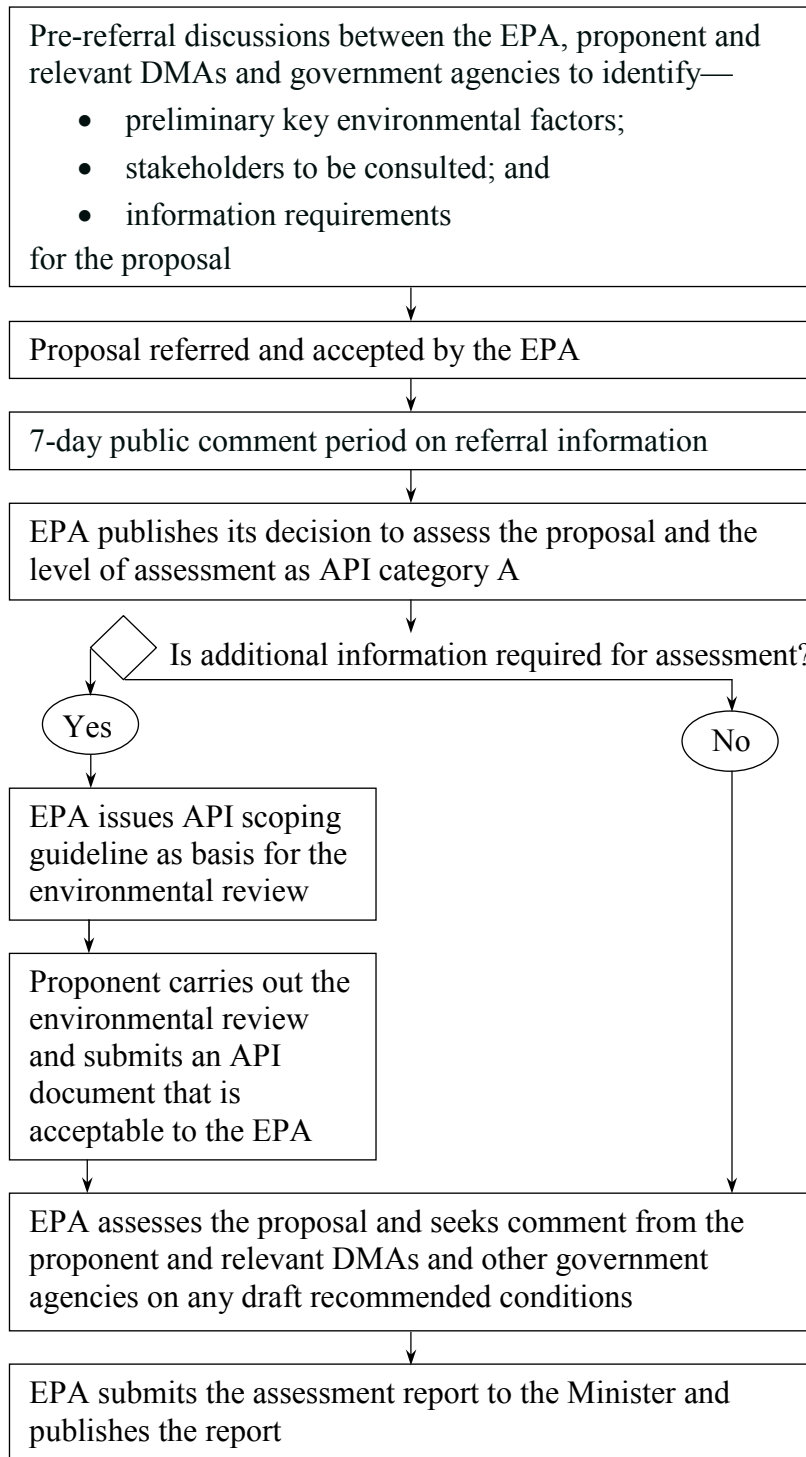
Source: Western Australia Environmental Protection Authority

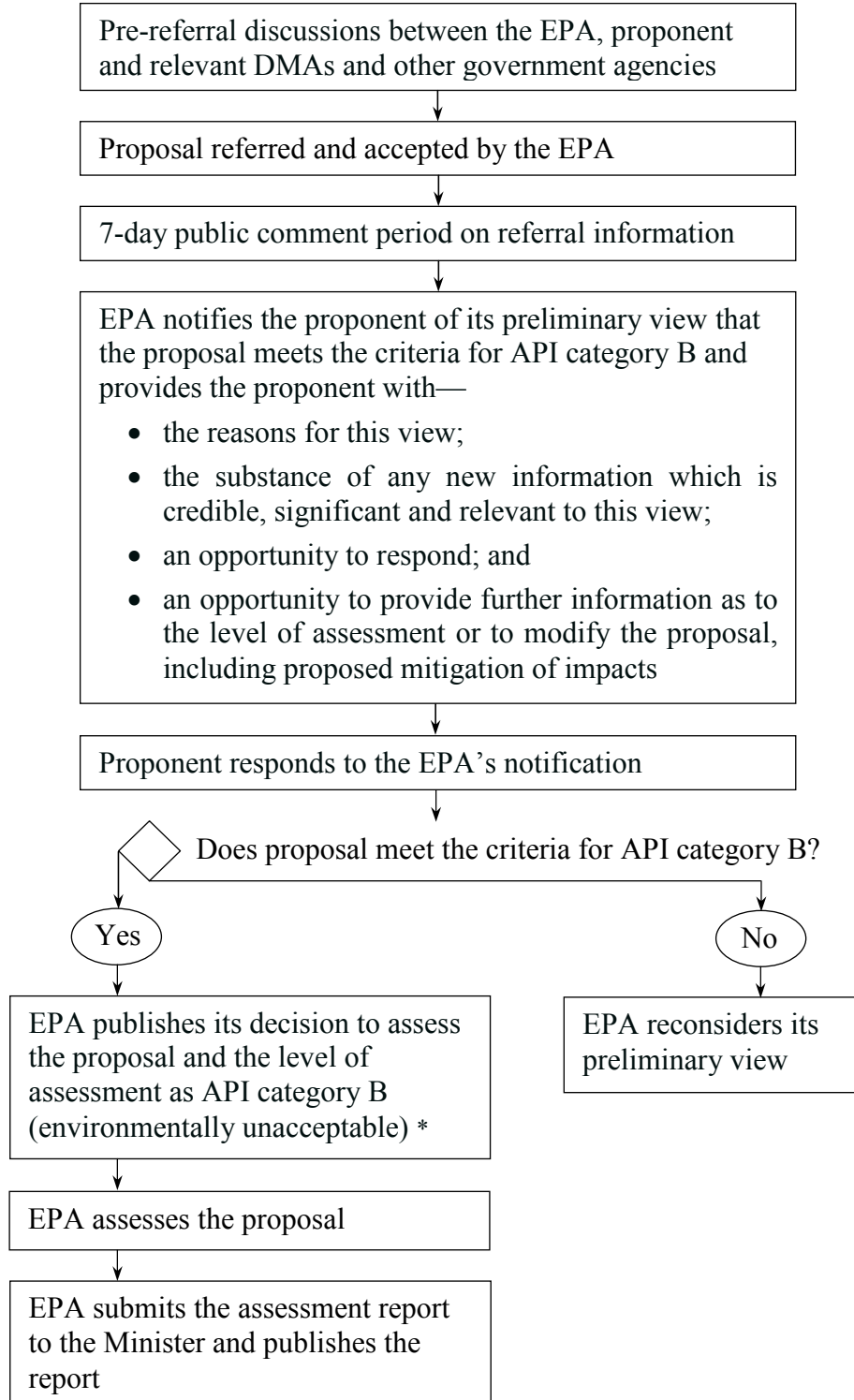
Schedule 1

LEVEL OF ASSESSMENT PROCESS FLOWCHARTS

Target timelines for the steps identified in this schedule are provided in Environmental Assessment Guideline no. 6 *EIA Timelines for Proposals*, available on the EPA website.

Outline of procedure for API level of assessment (category A)



Outline of procedure for API level of assessment (category B)

* The proponent may request the EPA to terminate the assessment of the proposal under section 40A of the Act after the EPA has published its decision on the level of assessment.

ENVIRONMENTAL PROTECTION AUTHORITY: PUBLIC ENVIRONMENTAL REVIEW

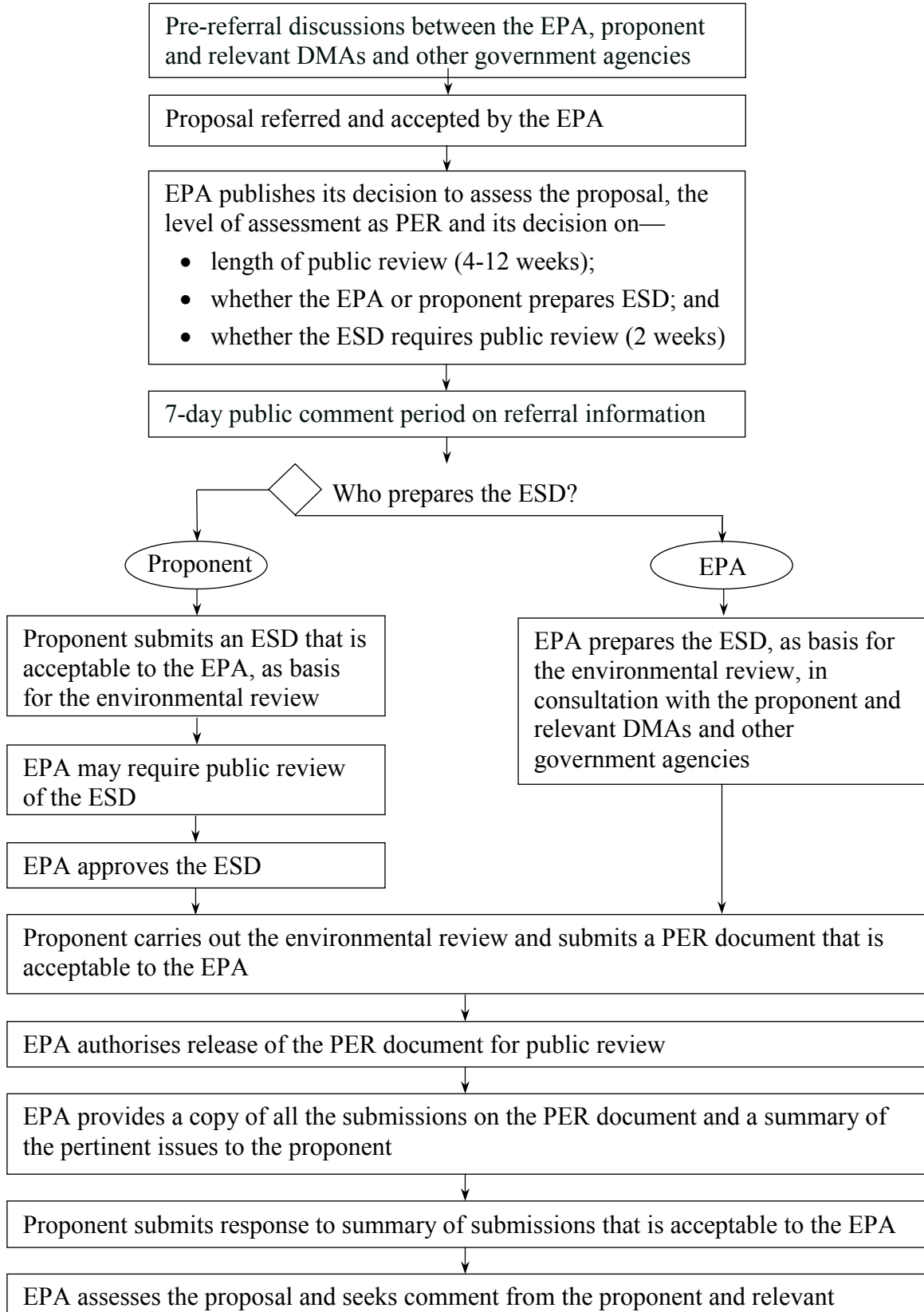
The EPA would apply a Public Environmental Review (PER) level of assessment to proposals which meet any one of the following criteria:

- The proposal is of regional and/or State-wide significance;
- The proposal has several key environmental factors or issues, some of which are complex or of a strategic nature;
- Substantial and detailed assessment of the proposal is required to determine whether, and if so, how the environmental issues could be managed; and
- The level of public concern about the likely effect of the proposal, if implemented, on the environment, warrants a public review period.

Detailed information on the PER level of assessment can be found in the *EIA Administrative Procedures 2012*, and a simple process diagram is below.

Source: Western Australia Environmental Protection Authority

Outline of procedure for PER level of assessment



AUSTRALIAN FOREIGN INVESTMENT REVIEW BOARD

Privately-owned foreign investors and government investors alike must receive approval from the Treasury's Foreign Investment Review Board (FIRB) before making substantial investments in Australian businesses. A free application must be submitted to FIRB's website (www.firb.gov.au) if it fits the following criteria. Approval from FIRB is required if a foreign person:

- Wants to acquire a substantial interest in, or control of, an Australian business that is valued above **\$252 million**;
- Wants to acquire rural land that will lead to the foreign person exceeding ownership of **\$15 million** in cumulative value of land;
- Wants to take an interest in residential real estate, vacant land or to buy shares or units in Australian urban land corporations or trusts, **regardless of value**;
- Wants to take an interest in developed commercial real estate that is valued at **\$55 million** or more — unless the real estate is heritage listed, in which a **\$5 million** threshold applies;
- The Treasurer has **30 days** to consider your application and make a decision, but may extend this period by up to a further **90 days** if necessary to fully review. You will be informed of the Treasurer's decision within **10 days** of it being made; and
- Foreign persons should also make an application if they have any doubt as to whether an investment is notifiable.

WESTERN AUSTRALIA DEPARTMENT OF ABORIGINAL AFFAIRS

The Department of Aboriginal Affairs (DAA) protects the heritage and legal rights of the Aboriginal peoples of Australia. The DAA enforces the Aboriginal Heritage Act 1972, (AHA) including updates in 2014, and the Aboriginal Heritage Regulations 1974. Important rules stated in these laws include:

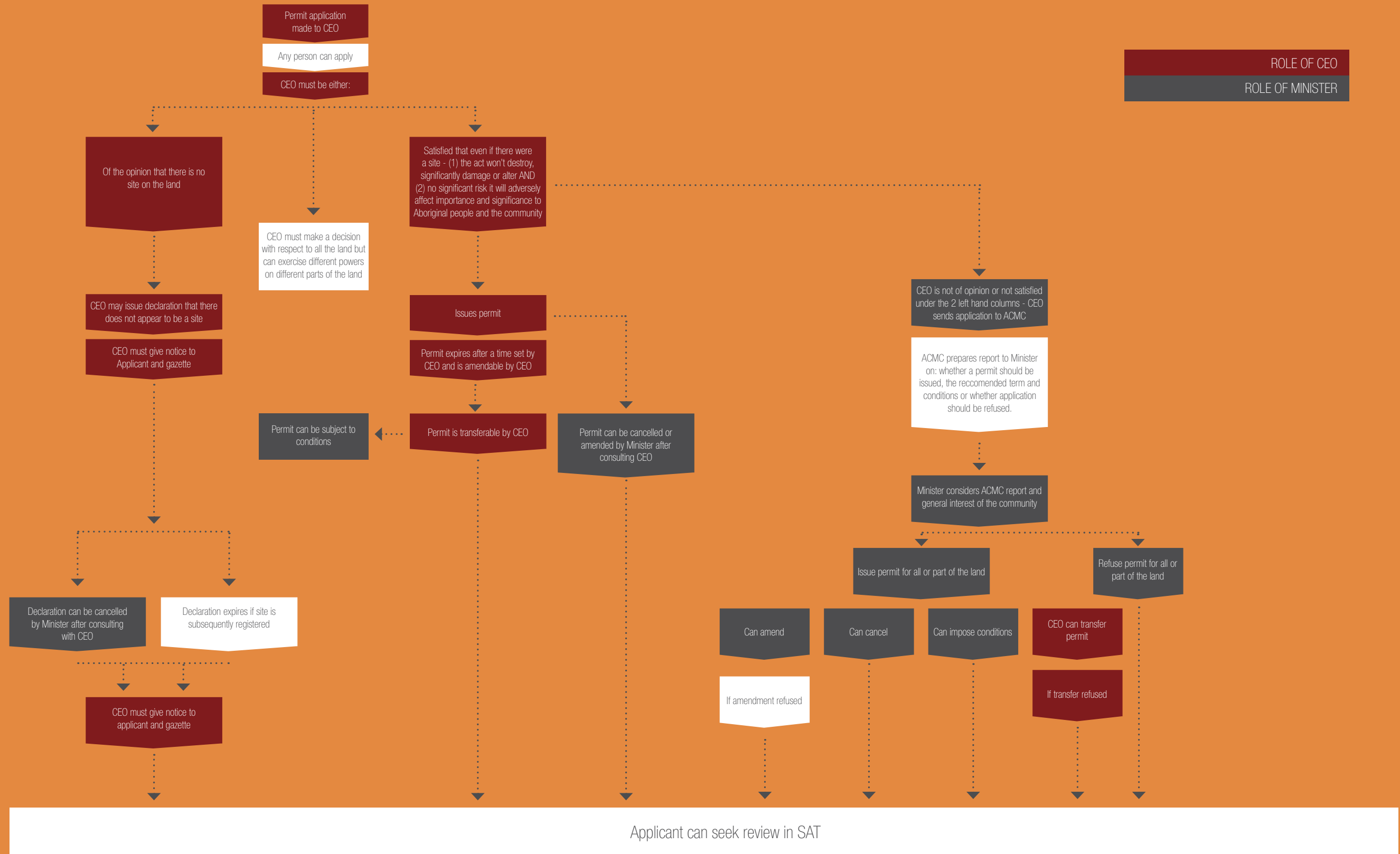
- **Regulation 10 of the Aboriginal Heritage Regulations 1974** – Relates to entering and the use of Aboriginal lands. Must apply for approval from the Registrar and/or the Minister for Aboriginal Affairs.
- **Section 16 AHA 1972** – Must apply to Registrar of Aboriginal Sites if your project requires entering and excavating a an Aboriginal site. Authorisation to use the lad may be granted with conditions imposed by the Aboriginal Cultural Material Committee (ACMC).
- **Section 17 AHA 1972** – Lists offenses under the AHA. Must either receive consent through the channels outlined in Section 16 or 18 if you plan to work on Aboriginal land.
- **Section 18 AHA 1972** – Requires consent of Minister and ACMC in order to work on Aboriginal sites.
- **Native Title** – Form of land title that recognises the unique ties some Aboriginal groups have to land in WA. Aboriginal and Torres Strait Islander people can apply to the courts to have their native title rights recognised under Australian law. Native title holders have the right to be compensated if governments acquire their land or waters for future developments.

ABORIGINAL HERITAGE LEGISLATIVE CHANGES NEW SECTION 18 PROCESS



Government of Western Australia
Department of Aboriginal Affairs

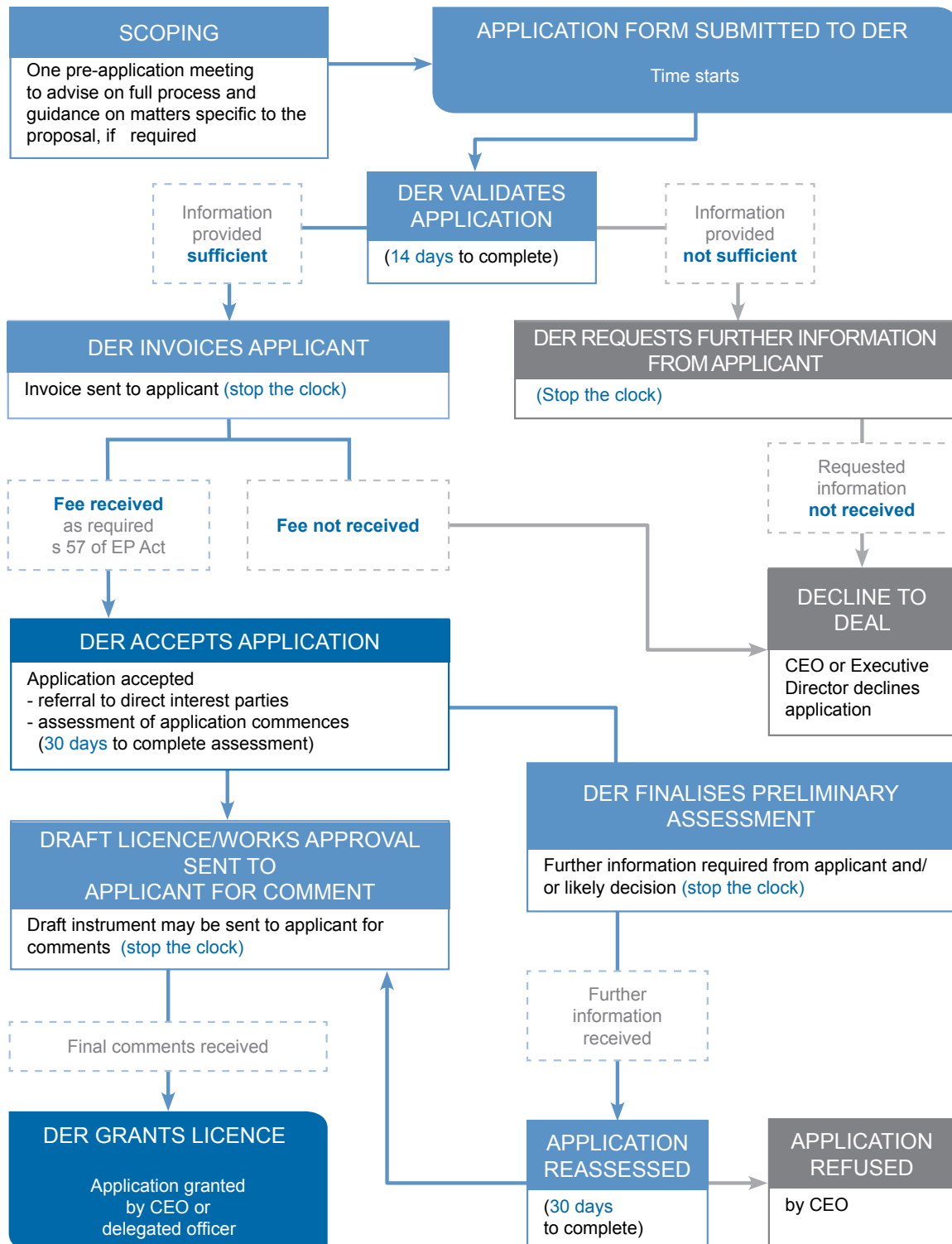
ROLE OF CEO
ROLE OF MINISTER



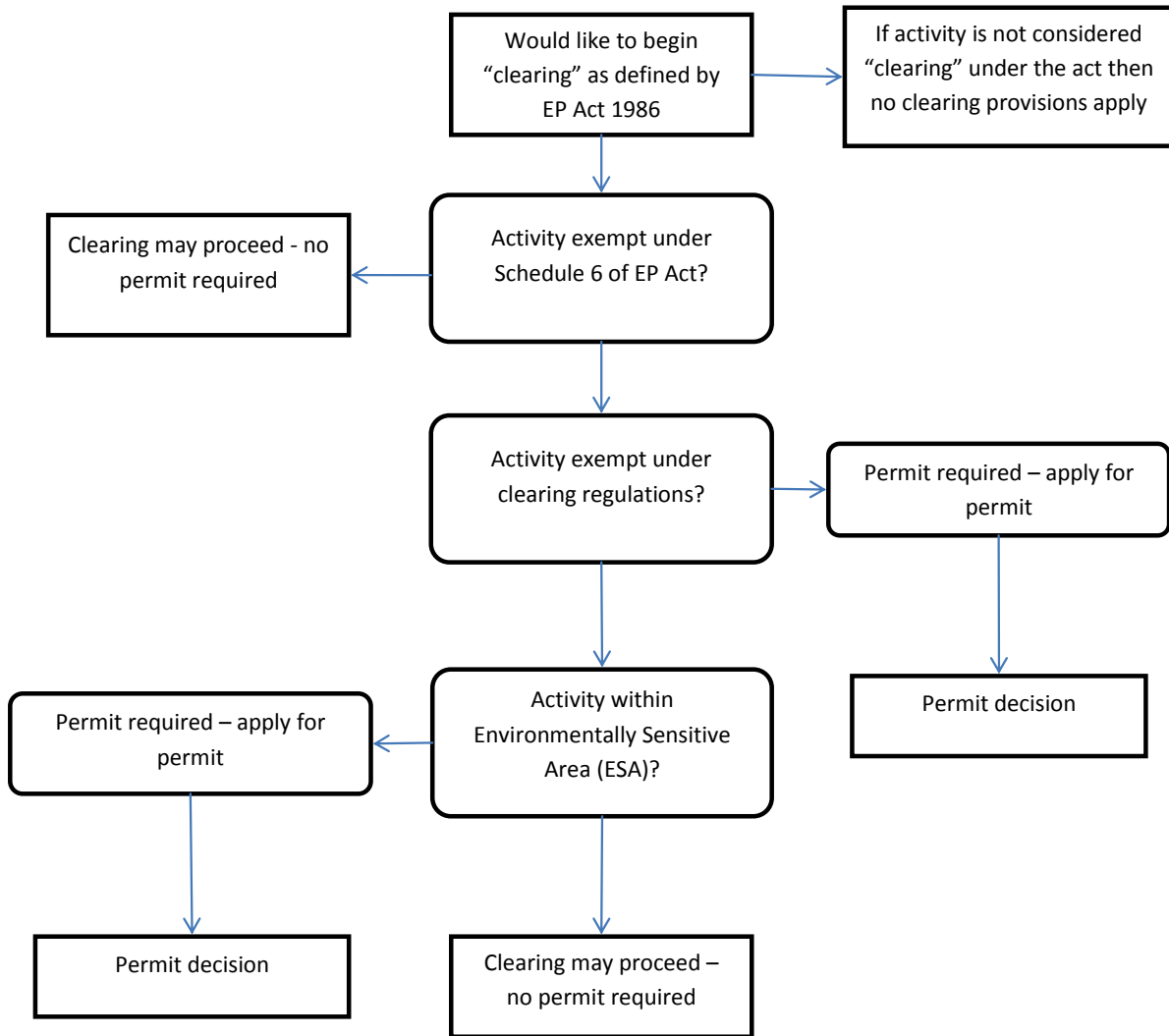
WESTERN AUSTRALIA DEPARTMENT OF ENVIRONMENTAL REGULATION

The Department of Environmental Regulation (DER) has a triple mandate: to regulate activities that have potential impacts on the environment; develop and implement environmental policies; and reduce the environmental impact of waste. DER does so by regulating pollution and the clearing of native vegetation and regulating Conservation and Land Management Act lands and waters. Finally it manages and provides advice to the WA Government on biodiversity, wetlands, contamination, pollution and waste, and environmental harm.

If a developer wants to clear an area of its native vegetation, it must first receive approval and a license from DER.

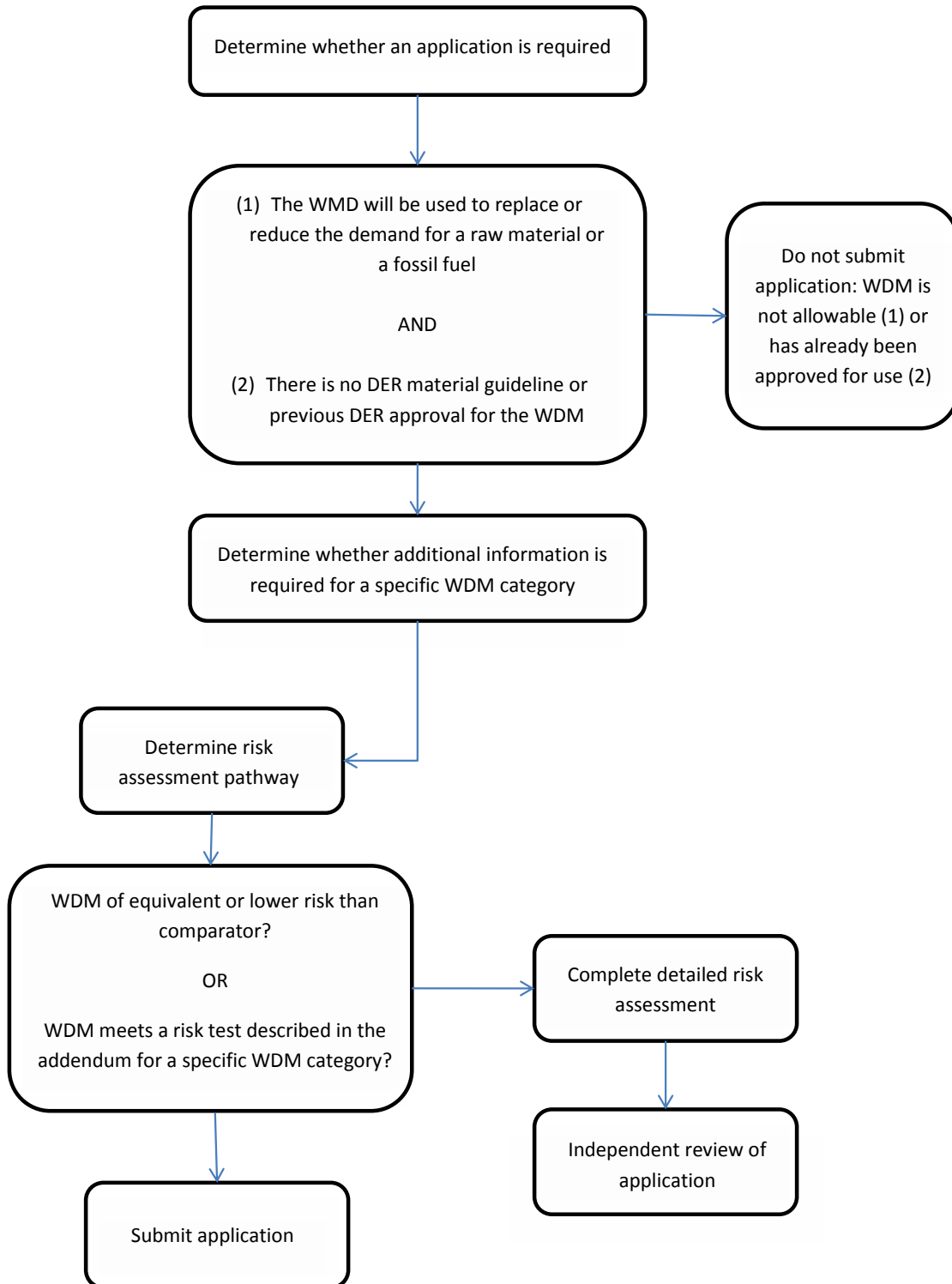


PROCESS FOR CLEARING PERMIT APPLICATION – WA DEPARTMENT OF ENVIRONMENTAL REGULATION



Source: Western Australia Department of Environmental Regulation

USE-OF-WASTE-DERIVED MATERIALS APPROVAL – WESTERN AUSTRALIA DEPARTMENT OF ENVIRONMENTAL REGULATION

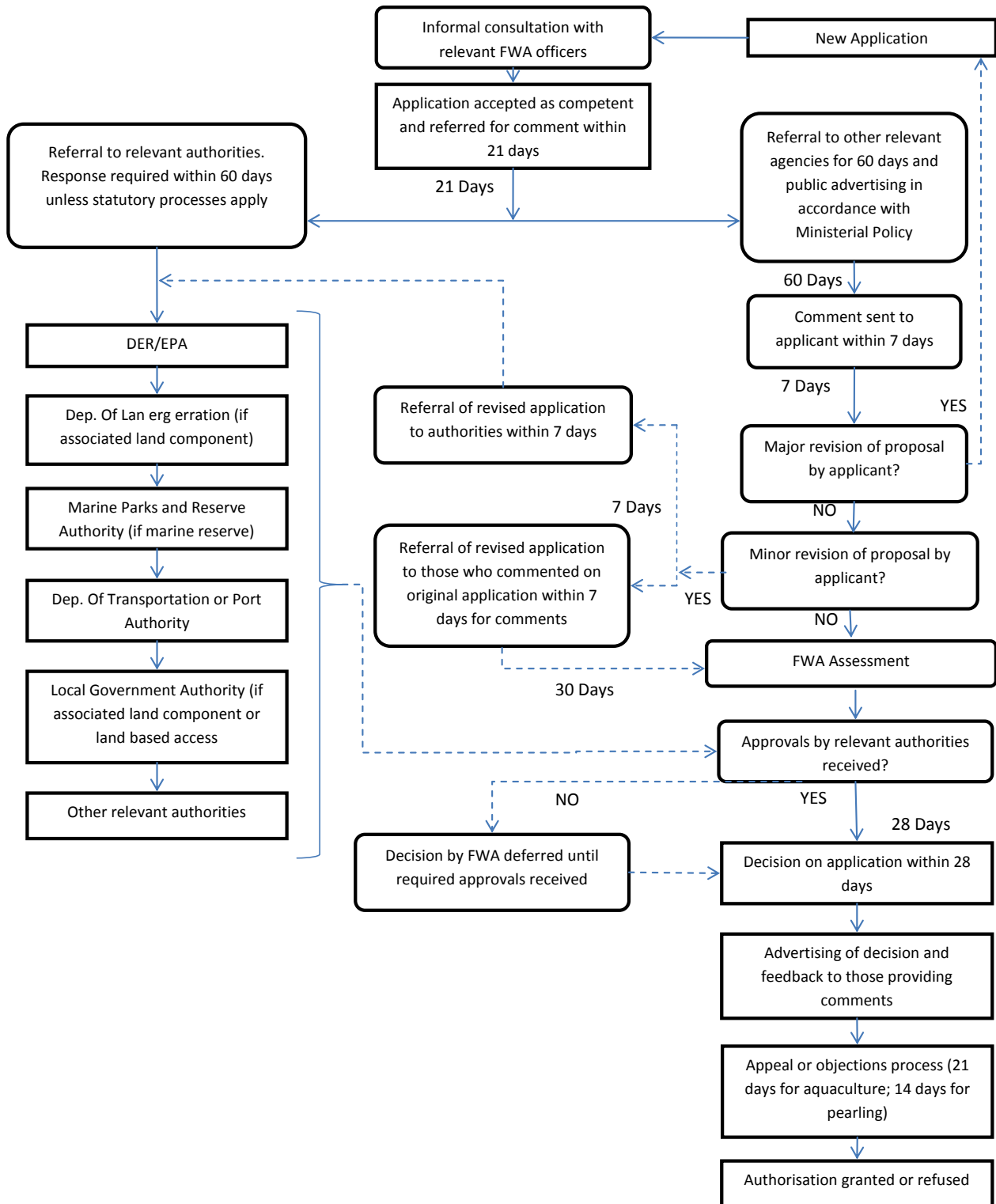


Source: Western Australia Department of Environmental Regulation

WESTERN AUSTRALIA DEPARTMENT OF FISHERIES

The Department of Fisheries serves to regulate fishing and pearling activities, as well as protect fish stock and natural resources along the coast of WA. It provides licensing, Leasing, and management requirements for establishing an aquaculture operation. Department of Fisheries approvals process is quite straightforward, especially in cases of establishing a fish farm or other aquaculture activities.

PROCESS FOR ASSESSMENT OF PEARLING AND AQUACULTURE PROPOSALS FOR COASTAL WESTERN AUSTRALIA



Source: Western Australia Department of Fisheries

WESTERN AUSTRALIA DEPARTMENT OF LANDS

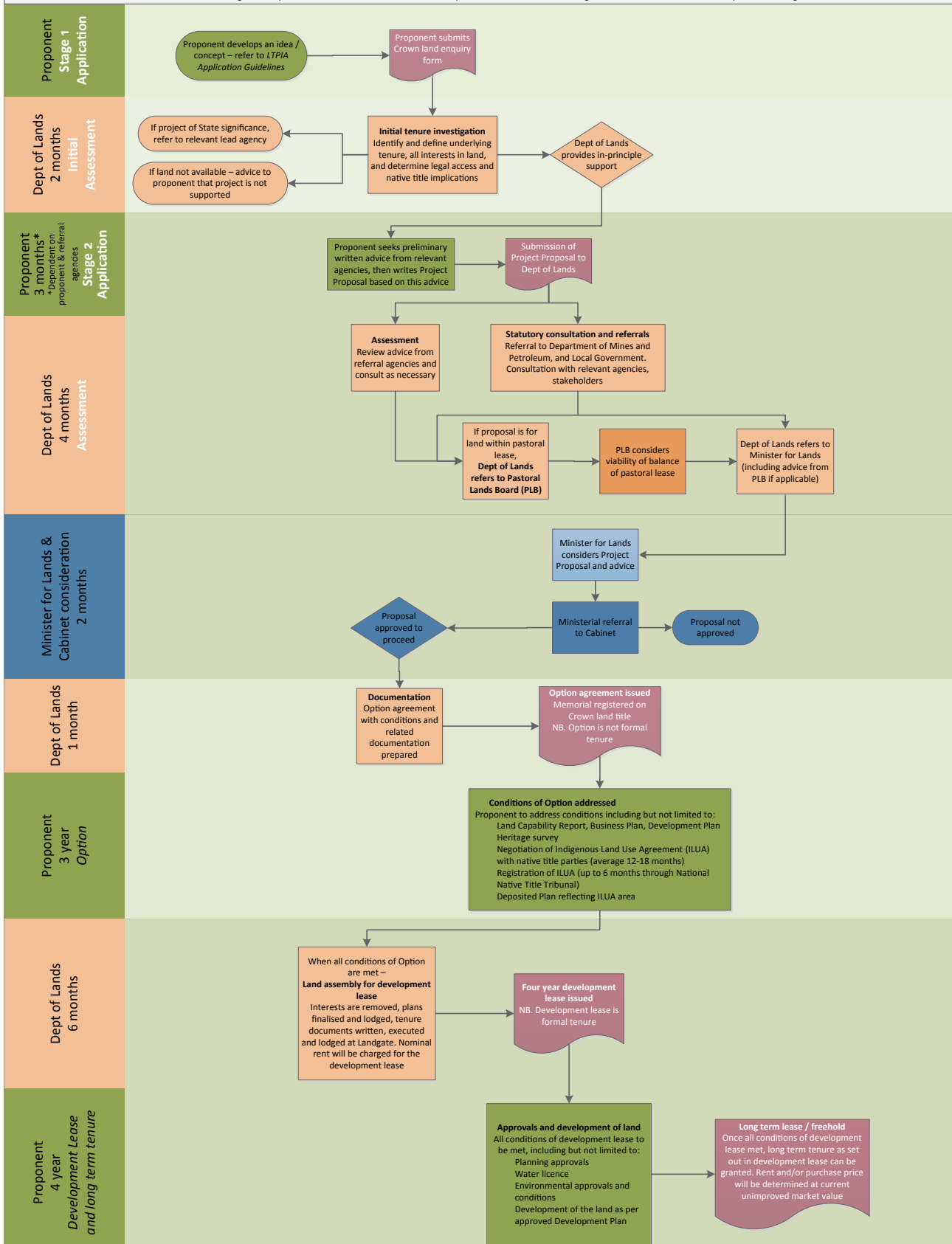
The Department of Lands has a straightforward mandate. Its purpose is to manage WA's Crown land and pastoral estates. Approximately 92% of the land in WA falls under mandate. The agency works to ensure the State's land is offered to a proponent that will maximize its usage. Other responsibilities include:

- Direct responsibility for all unallocated Crown land and unmanaged reserves;
- Administering pastoral leases and providing support to the Pastoral Lands Board;
- Assembling land for residential, industrial, infrastructure corridor, conservation and community needs;
- Managing land acquired for infrastructure corridors;
- Participating in strategic native title negotiations;
- Investigating, identifying, reporting and managing contamination on Crown land; and
- Disposing of surplus government land and buildings through the Land Asset Sales Program.

It should be noted that significant reform of the administration and usage of pastoral lands and rangelands is underway in Western Australia, with the objective of enhancing economic development and diversification. Project proponents and investors should keep abreast of these legislative and regulatory changes. As an example the proposed new pathway for irrigated agriculture on pastoral land is presented below from the Water for Food project:

Water for Food – Land Tenure Pathway for Irrigated Agriculture (LTPIA) Summary Flowchart

This flowchart is intended as a guide only. All timelines are estimates and the Department of Lands makes no guarantees on the outcome of any tenure change submission.





WESTERN AUSTRALIA DEPARTMENT OF PLANNING

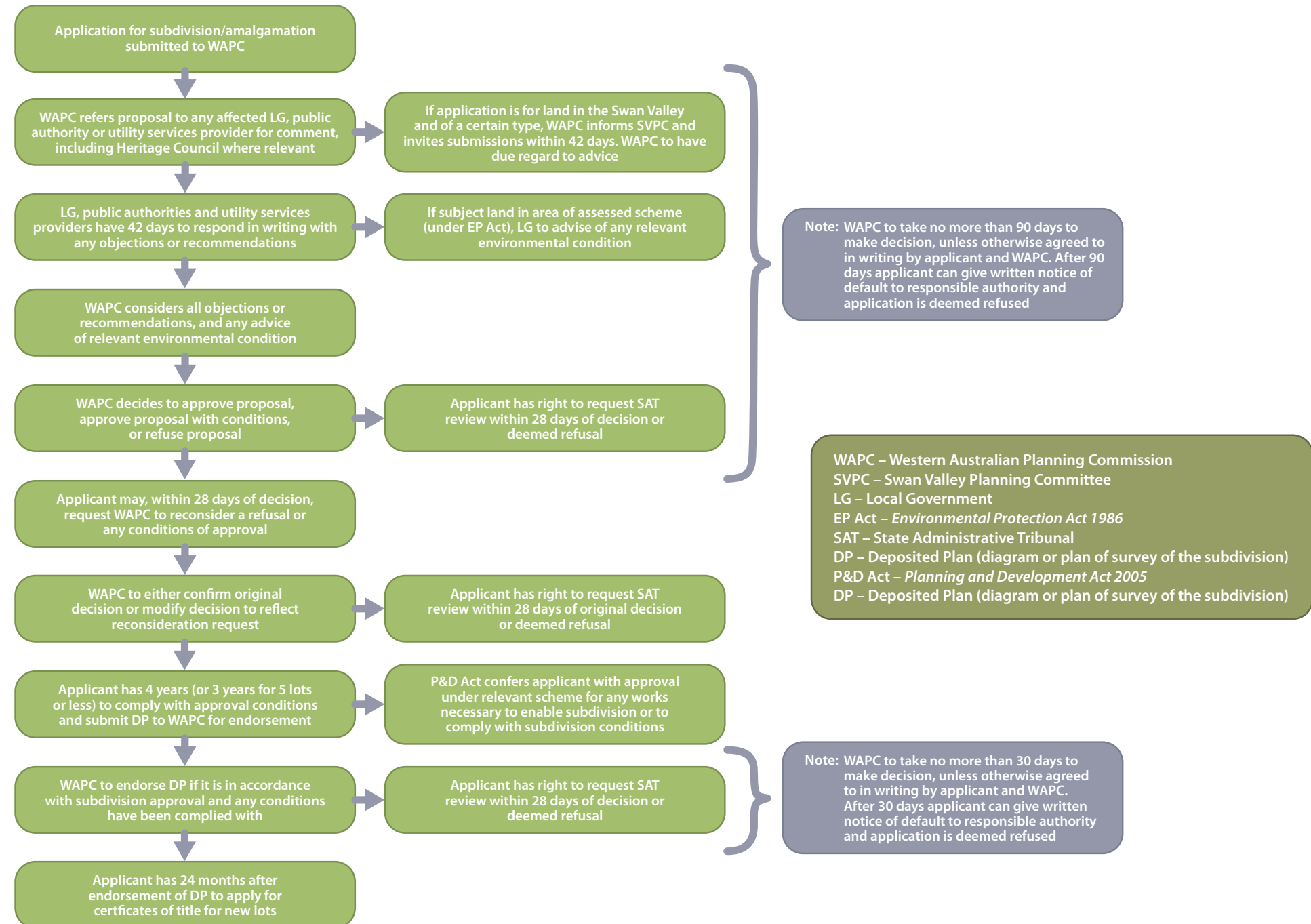
According to WA's Lead Agency Framework, the Department of Planning is the lead agency for:

- Major land supply proposals in the Metropolitan and non-Metropolitan area;
- Strategic integrated land use, transport, and infrastructure project planning;
- Public works (Other) of State/Regional Significance;
- Planning Control Areas (Metropolitan and non-Metropolitan); and
- Improvement Plans.

The Western Australian Planning Commission (WAPC) The WAPC is a statutory authority and operates with the support of the DoP, which provides professional and technical expertise, administrative services and corporate resources to assist its decision-making. It provides recommendations to the Minister of Planning regarding approvals for regional or state-wide development projects. Some of its authority has been delegated to the Local Government Authority.

introduction to the Western Australian Planning System

Subdivision

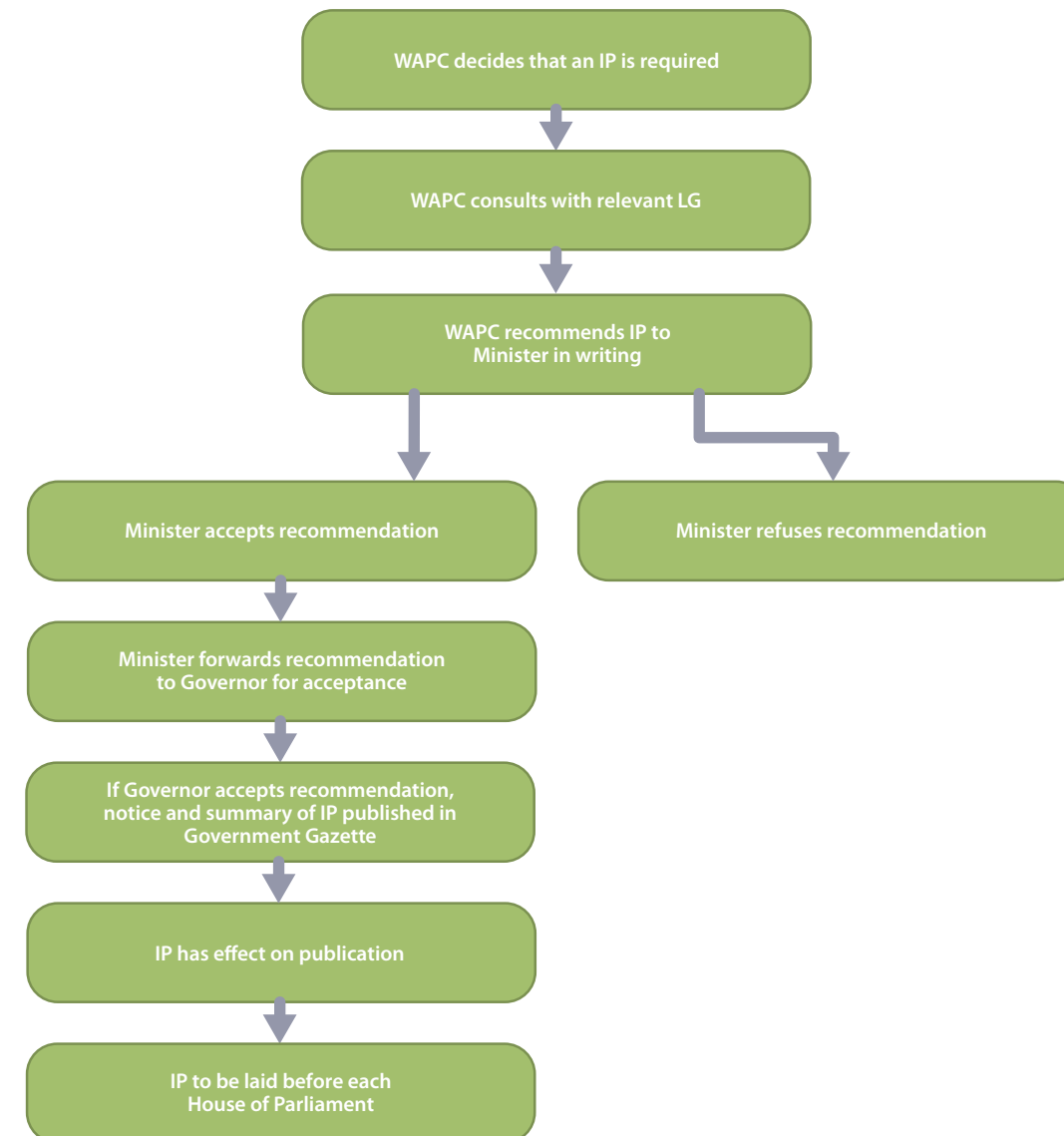


- 1 The Western Australian Planning System
- 2 Responsible authorities
- 3 Planning legislation
- 4 Planning framework
- 5 Planning applications and enforcement
- Appendices



introduction to the Western Australian Planning System

Improvement plan



WAPC – Western Australian Planning Commission
IP – Improvement plan
LG – local government
Minister – Minister for Planning
Governor – Governor of Western Australia

Note: An amendment to or revocation of an IP follows the same process



1 The Western Australian Planning System

2 Responsible authorities

3 Planning legislation

4 Planning framework

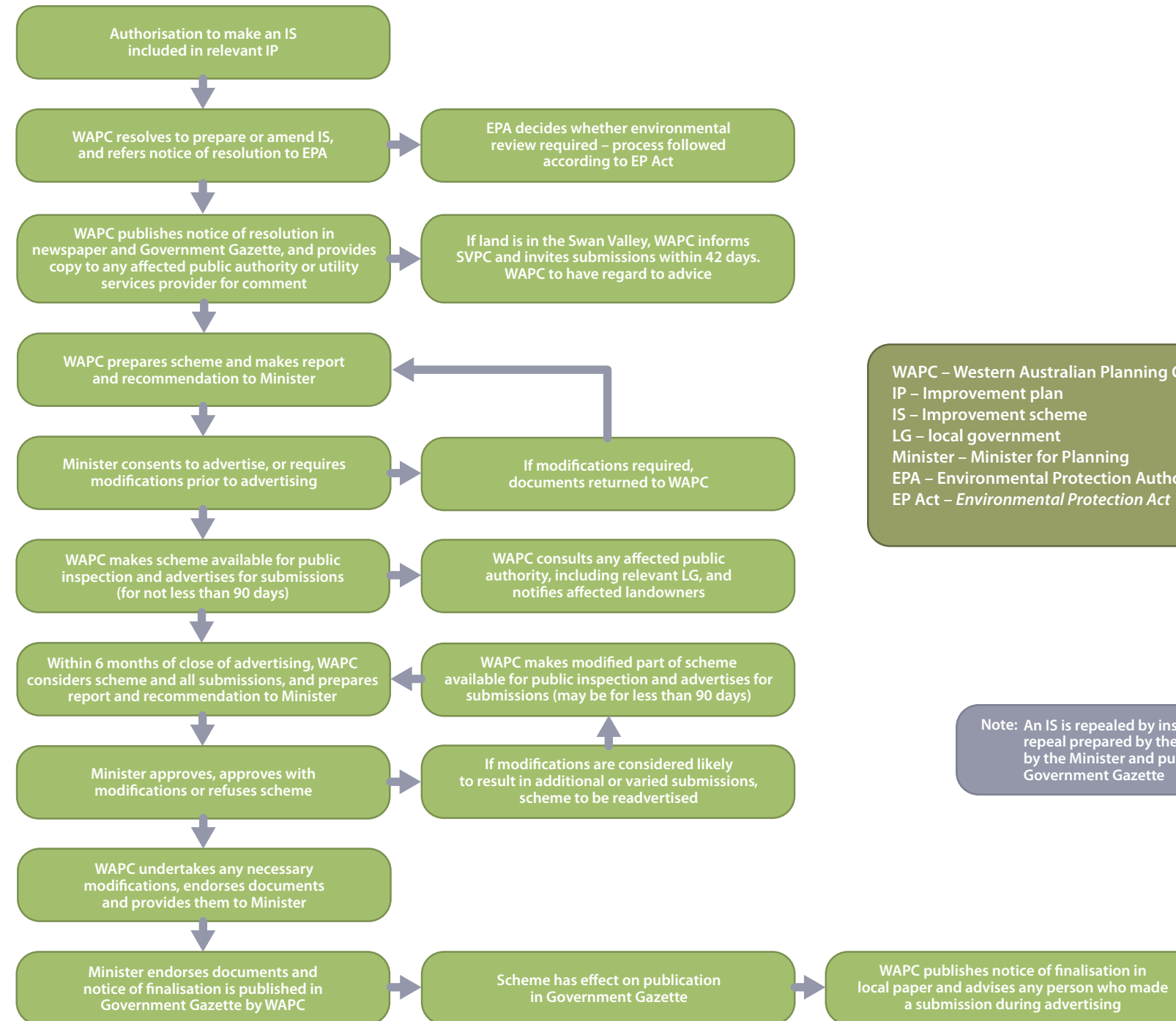
5 Planning applications and enforcement

Appendices



introduction to the Western Australian Planning System

Improvement scheme



WAPC – Western Australian Planning Commission
 IP – Improvement plan
 IS – Improvement scheme
 LG – local government
 Minister – Minister for Planning
 EPA – Environmental Protection Authority
 EP Act – *Environmental Protection Act 1986*

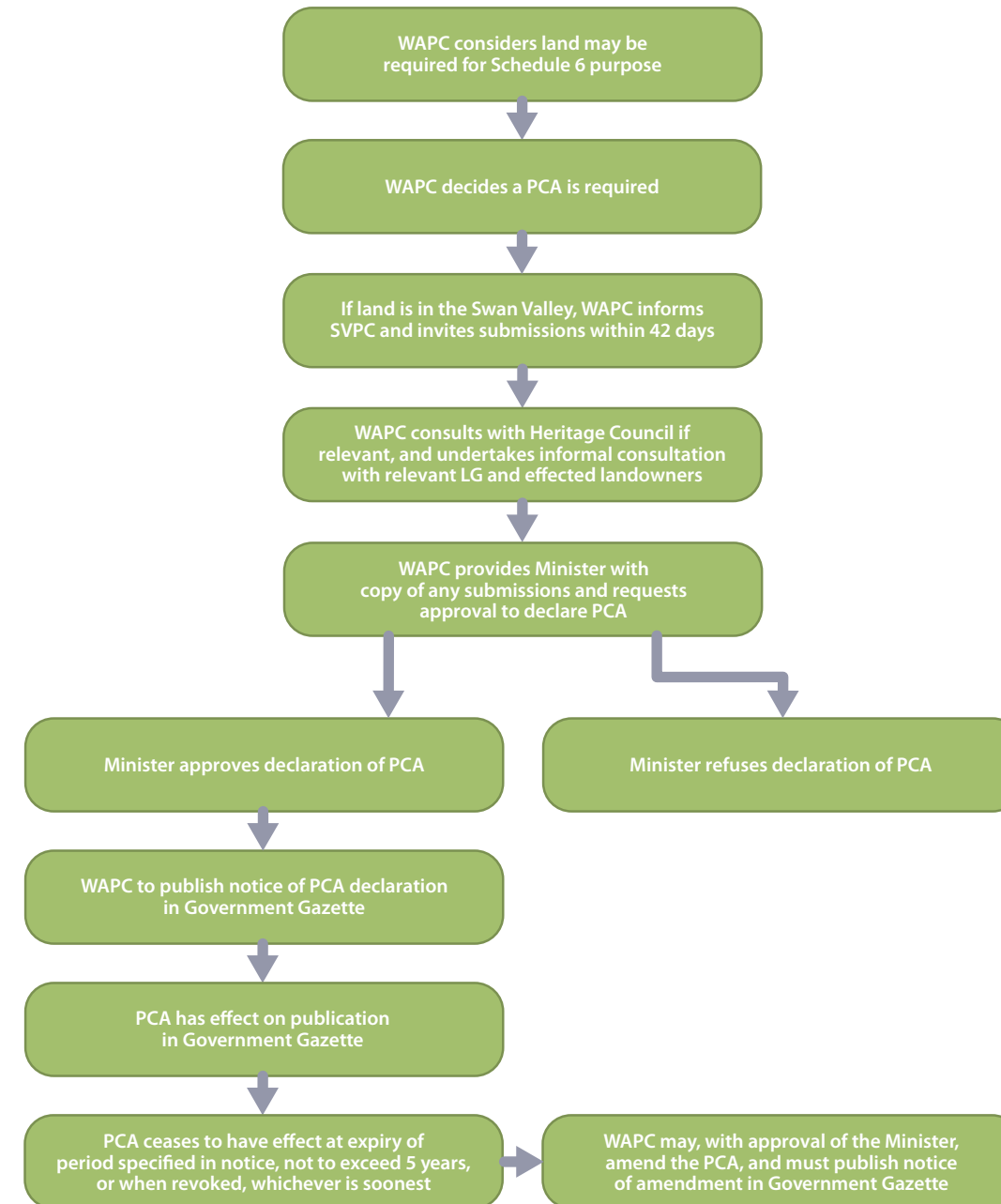
Note: An IS is repealed by instrument of repeal prepared by the WAPC, approved by the Minister and published in the Government Gazette

- 1 The Western Australian Planning System
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introduction to the Western Australian Planning System

Planning control area



WAPC – Western Australian Planning Commission
Schedule 6 – Schedule 6 of the *Planning and Development Act 2005*
PCA – Planning control area
SVPC – Swan Valley Planning Committee
LG – local government
Minister – Minister for Planning



1 The Western Australian Planning System

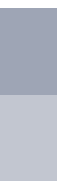
2 Responsible authorities

3 Planning legislation

4 Planning framework

5 Planning applications and enforcement

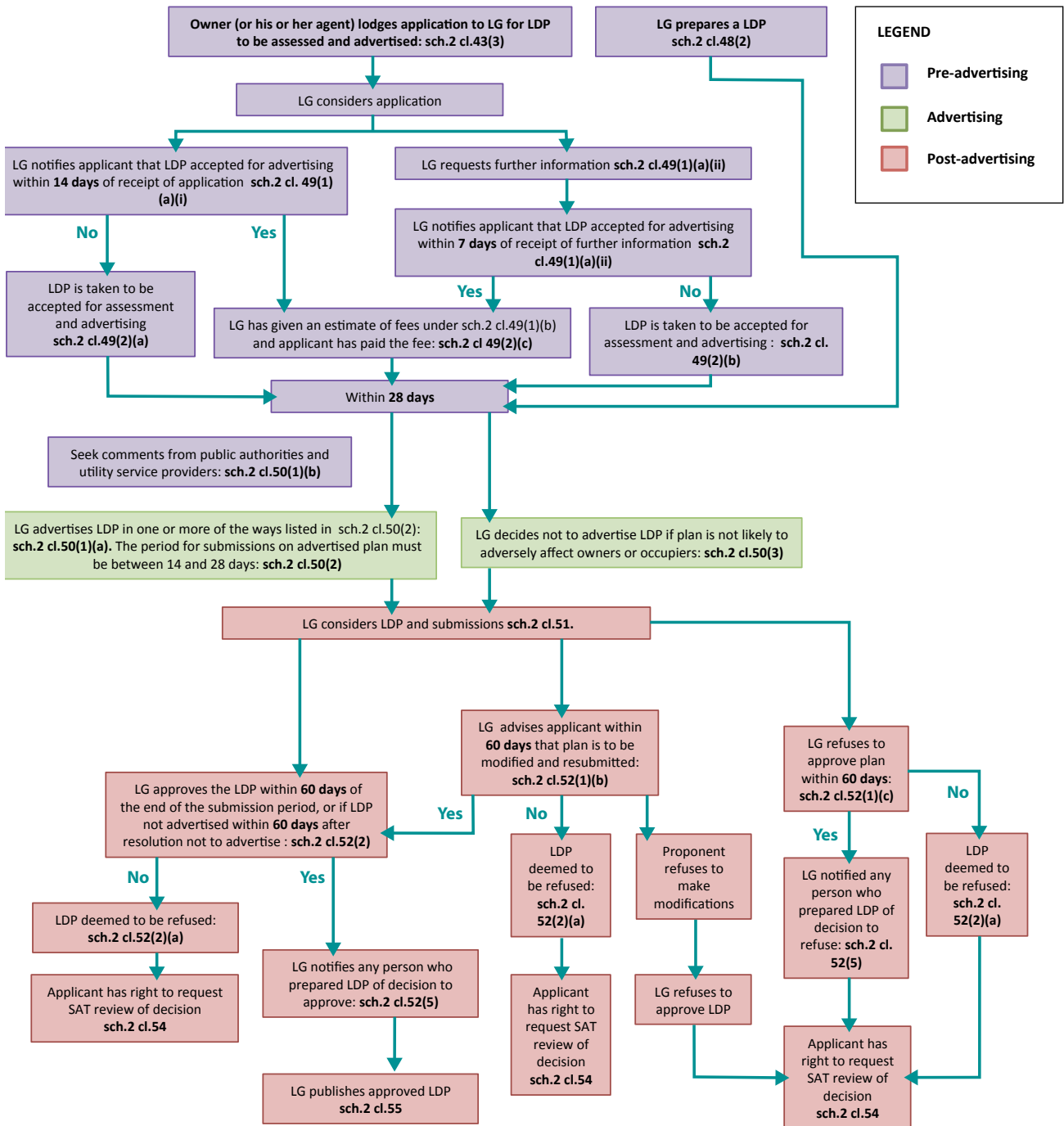
Appendices

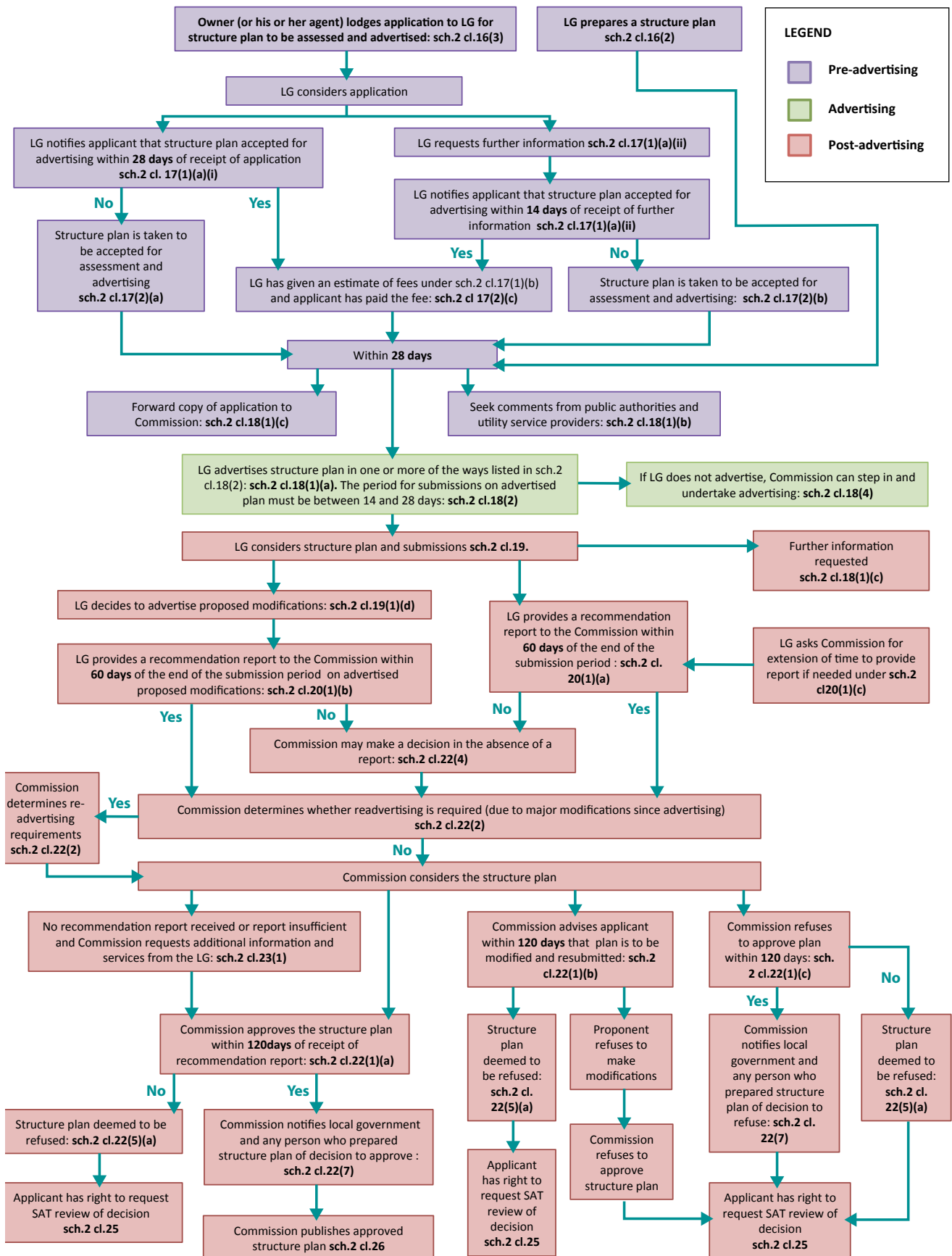


WESTERN AUSTRALIA DEPARTMENT OF LOCAL GOVERNMENT AND COMMUNITIES

When beginning the approvals process for a business or investment, an important place to start is with the local government in the area of investment. Each local government has its own regulations related to building codes, roadways, etc. Western Australia's Department of Local Government and Communities website (<http://dlg.wa.gov.au>) has a directory with local government contact information.

Local Development Plans flowchart





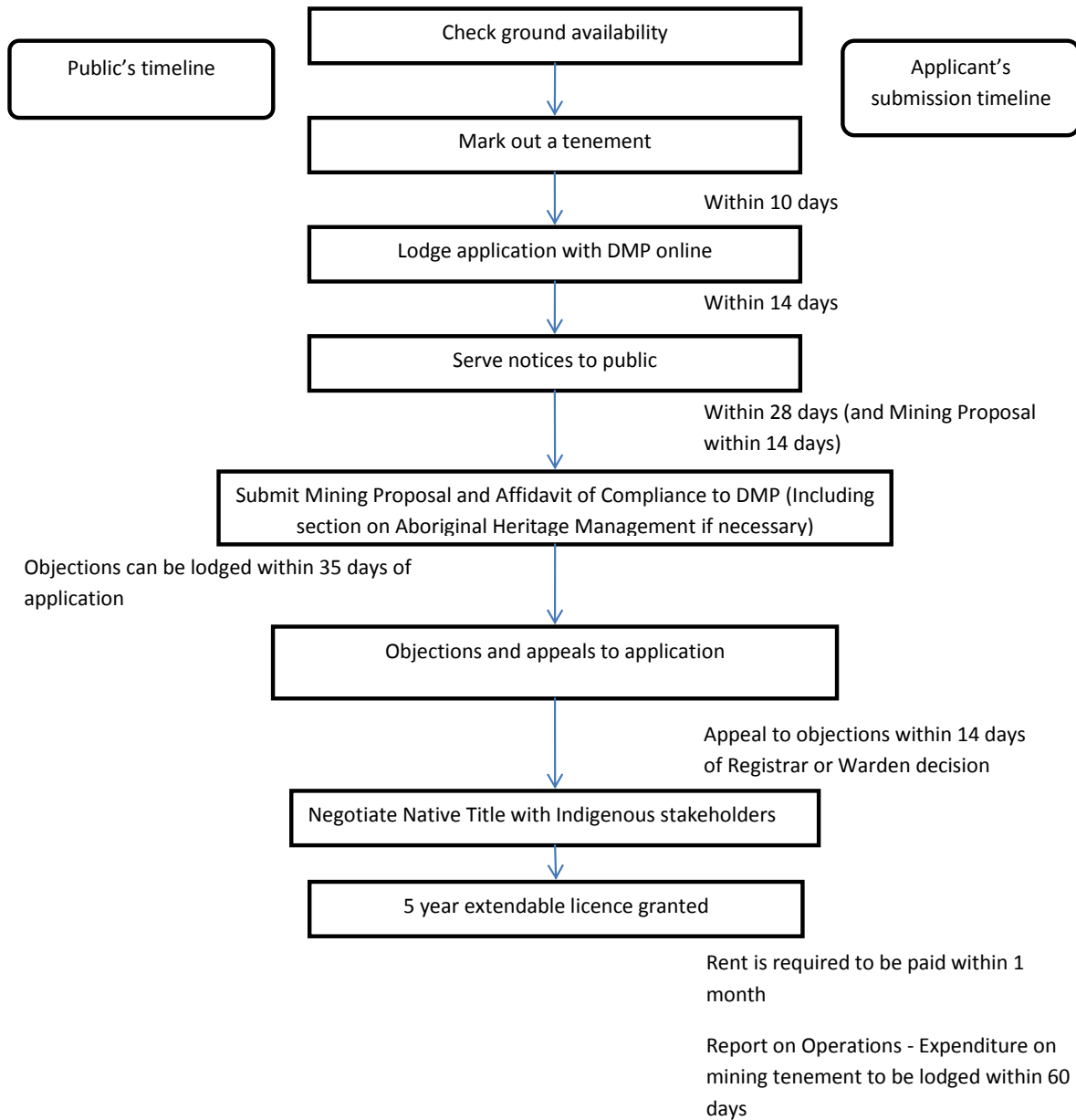
WESTERN AUSTRALIA DEPARTMENT OF MINES AND PETROLEUM

The Department of Mines and Petroleum (DMP) is the lead agency for works mining, petroleum and geothermal, and carbon capture storage projects. While it is the lead agency, it also has memorandums of understanding and administrative agreements with other agencies to ensure proper protection of the environment, health, and water systems in Western Australia. As approximately 85% of WA contains Aboriginal sites, the DMP also works closely with the Department of Aboriginal Affairs to ensure their protection.

The licenses DMP oversees are below:

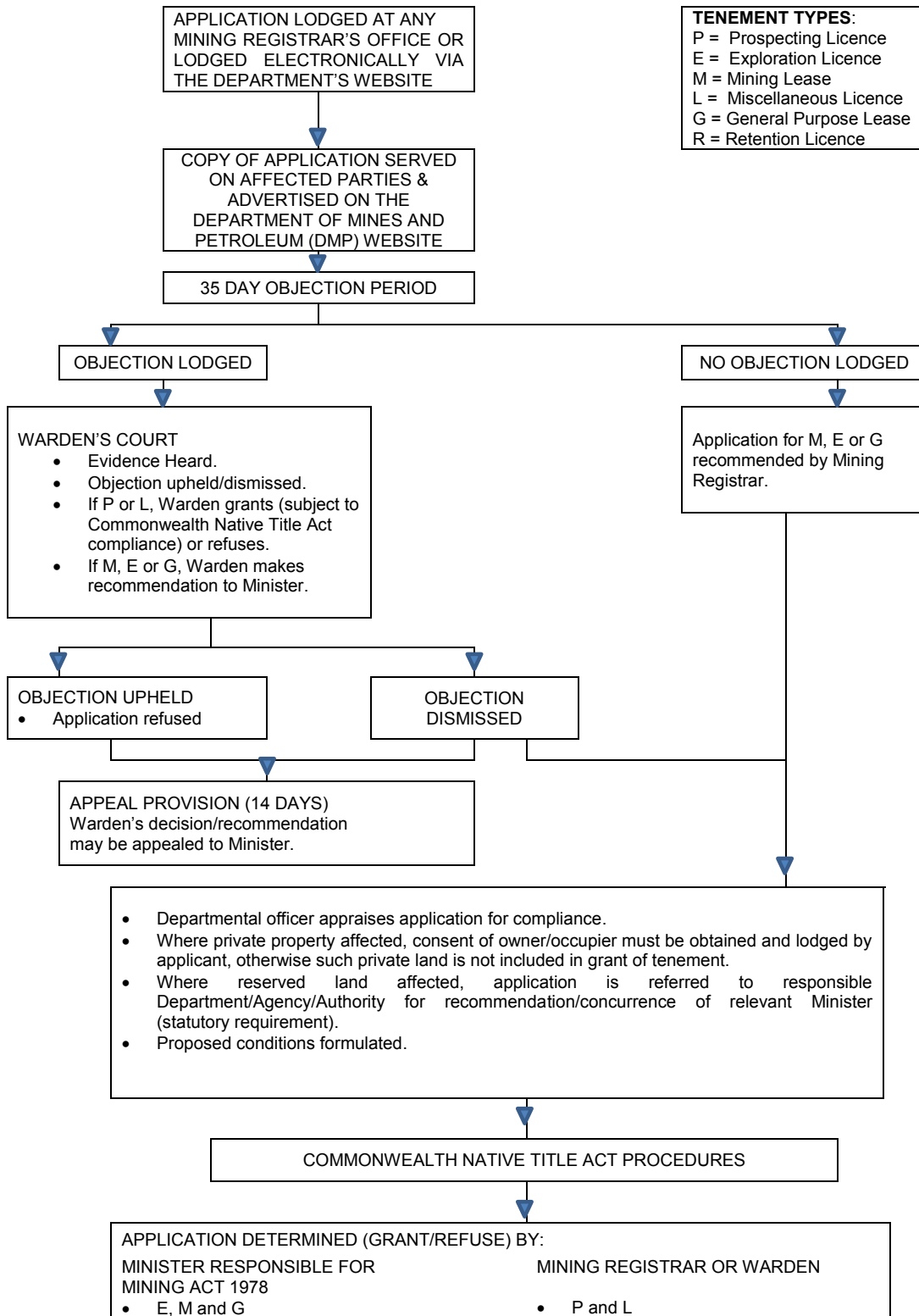
1. **Programme of Works** - submitted when a company or prospector wants to explore for minerals, usually on a small scale. DMP aims to complete 80% of applications within 30 business days;
 - a. **Prospecting; and**
 - b. **Exploration.**
2. **Mining Proposal** - submitted by a company for a proposed mining operation and accompanied by a mining lease application. DMP aims to complete 80% within 30 business days;
3. **Mine Closure Plan** - submitted by a company as part of a mining proposal and covering all aspects of mine decommissioning and rehabilitation. DMP aims to complete 80% within 30 business days when included in a Mining Proposal (80% within 60 business days for other Mine Closure Plans);
4. **Environment Plan** - submitted by a company for proposed petroleum and/or geothermal activities (including wells, facilities, pipelines and surveys). DMP aims to complete 80% within 30 calendar days;
5. **Oil Spill Contingency Plan** - submitted by a company as part of an environment plan and outlines the emergency response structure, strategy, and arrangements in the event of a spill incident. DMP aims to complete 80% within 30 calendar days; and
6. **Native Vegetation Clearing Permit** - DMP aims to complete 80% within 60 calendar days (100% within 90 calendar days).

GENERAL OUTLINE OF APPROVAL PROCESS FOR MINING AND PETROLEUM ACTIVITIES



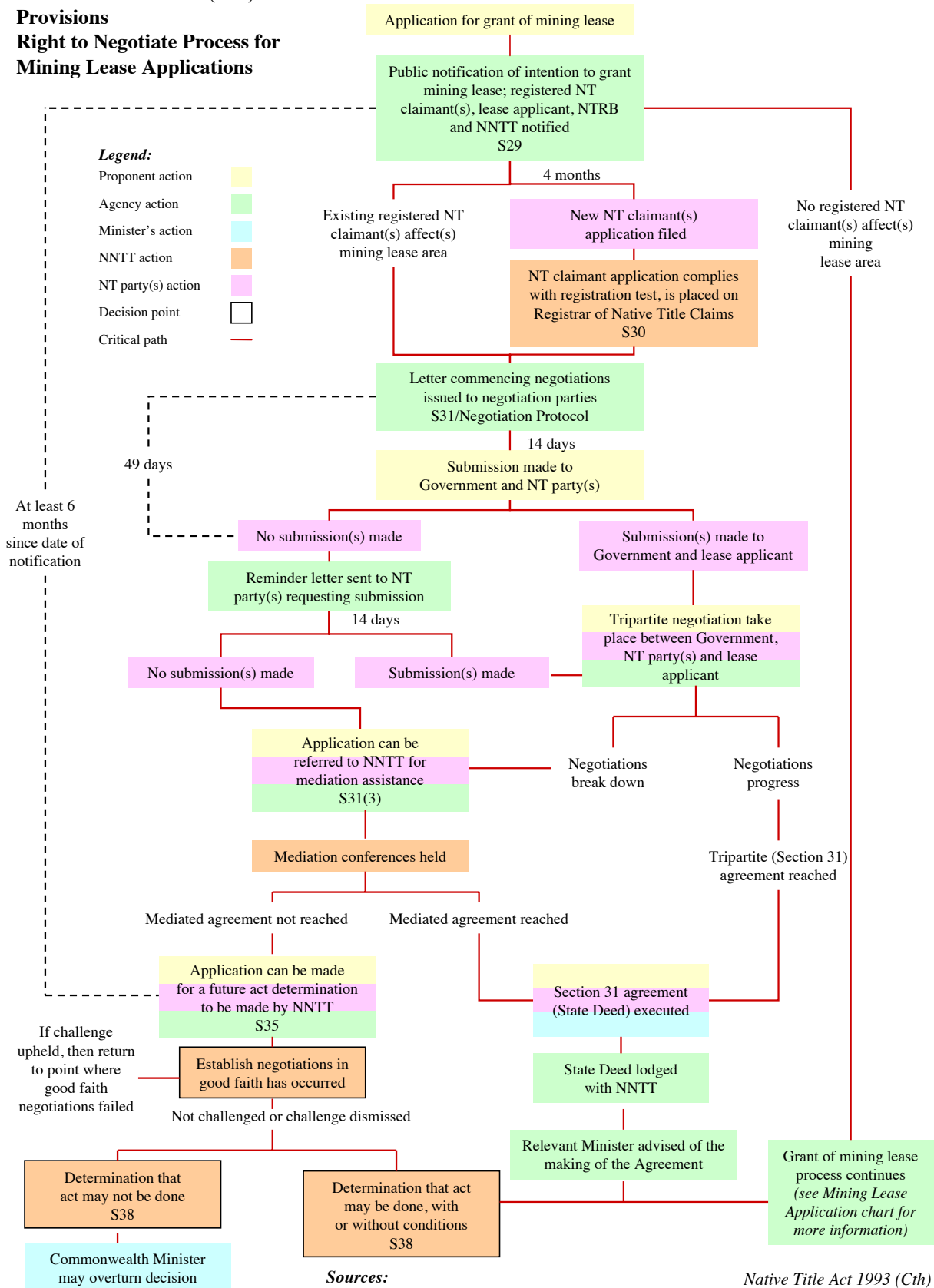
Source: Western Australia Department of Mines and Petroleum

PROCESS FOR DETERMINING MINING ACT 1978 TENEMENT APPLICATIONS



The tenement holder is to seek approval from the Department before any ground disturbing activities are undertaken.

Native Title Act 1993 (Cth) Future Act Provisions
Right to Negotiate Process for Mining Lease Applications



Sources: Native Title Act 1993 (Cth) Negotiation Protocol for Mineral Titles in the Right to Negotiate Process, February 2003

WESTERN AUSTRALIA DEPARTMENT OF STATE DEVELOPMENT

The Department of State Development (DSD) serves to promote trade and investment in Western Australia. It assists investors and project managers with major, “state significant,” projects, generally in the resource or infrastructure development industries.

DSD assists qualifying investors with navigating the WA Government’s approvals processes. It also works with proponents of major projects to put together favourable conditions for investment in contracts known as State Agreements.

DSD works with proponents of projects that require substantial investment, such as many millions or billions of dollars or have the potential to create significant employment in the state.

WESTERN AUSTRALIA DEPARTMENT OF TRANSPORT

The Department of Transport is the lead agency for:

- Integrated transport (rail, road and ports) planning for major and significant projects delivery;
- Public transport infrastructure arising from the Public Transport Master Plan;
- Major state initiated port works;
- Major state initiated rail projects;
- Major road projects; and
- Significant projects arising from planning of transport corridors.

DoT also regulates the aviation industry and commercial and chartered transportation. The DOT provides grants to developers for development projects that fall in line with the state development plan.

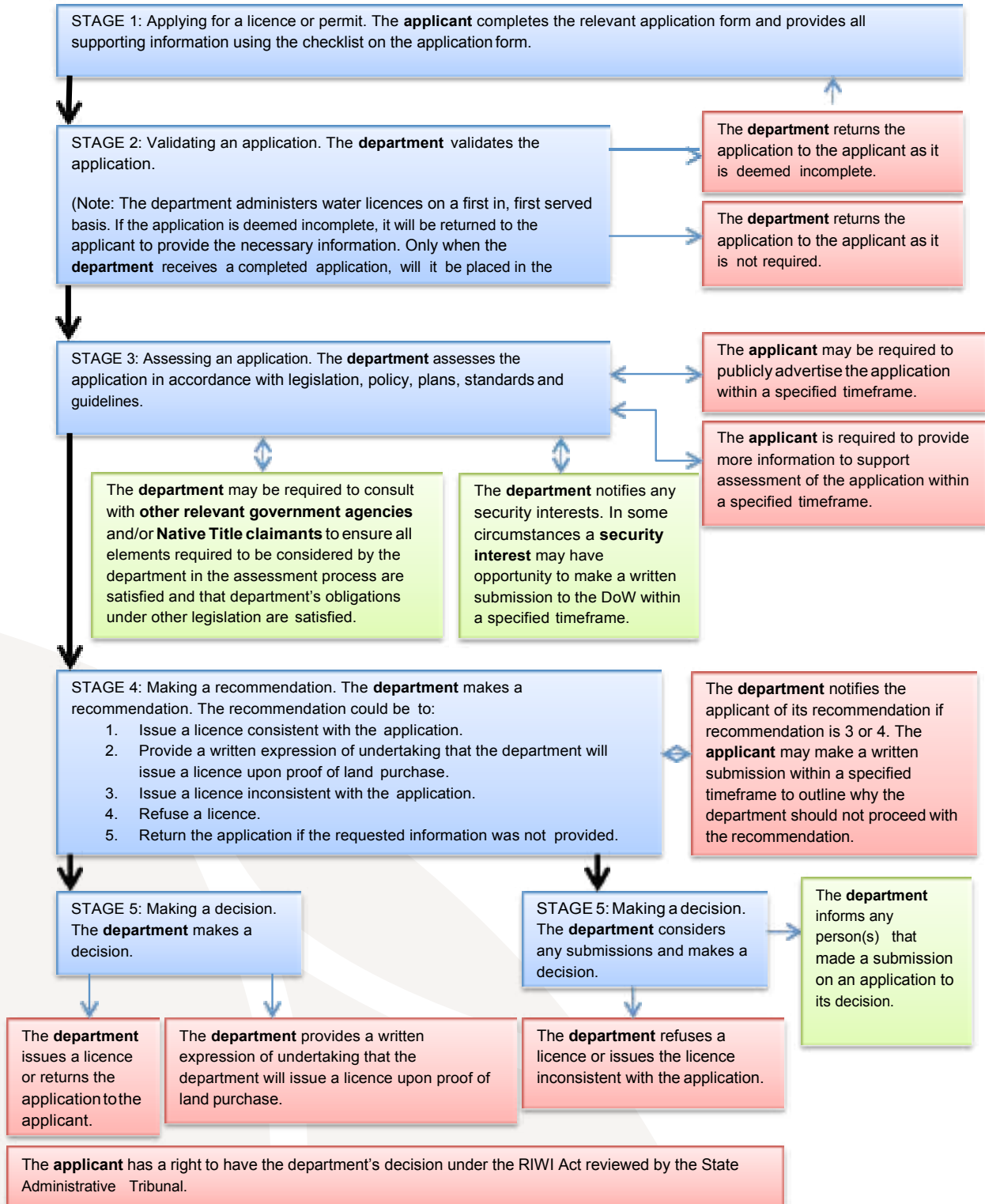
Most major projects require coordination with Department of Transport. However, smaller projects generally require approvals from the transportation boards of the local government(s) in which the project operates.

WESTERN AUSTRALIA DEPARTMENT OF WATER

The Department of Water is responsible for managing all water resources in the state:

- Provides policy and advice to stakeholders and authorities;
- Determines locations of water resources and the best way to utilise them;
- Protects water resources for sustainable future use; and
- Regulates the use of water and gives license for water use and trading.

WATER LICENSING PROCESS – WESTERN AUSTRALIA DEPARTMENT OF WATER







Glossary of abbreviations

AAC	Ashburton Aboriginal Corporation
ACMC	Aboriginal Cultural Material Committee
AER	AgGrow Energy Resources Pty Ltd
AHA	Aboriginal Heritage Act 1972
AHS	Autonomous Haulage System
AOA	Access and Option Agreement
API	Assessment on Proponent Information
ARENA	Federal Government's Australian Renewable Energy Agency
ASEAN	Association of Southeast Asian Nations
BCMI	Batavia Coast Maritime Institute
BIA	Broome International Airport
BMSC	Broome Maritime Simulation Centre
BRICS	Brazil, Russia, India, China and South Africa
CALM	Department of Conservation and Land Management (Western Australia)
CBD	Central Business District
CEO	Chief Executive Officer
CML	Consolidated Minerals Ltd
DAA	Department of Aboriginal Affairs
DAFWA	Department of Agriculture and Food Western Australia
DCs	Regional Development Commissions
DER	Department of Environmental Regulation
DMA	Decision Making Authority
DMP	Department of Mines and Petroleum
DOF	Department of Fisheries
DOL	Department of Lands



DOP	Department of Planning	GUC	Geraldton Universities Centre
DOT	Department of Transport	ha	hectares
DOW	Department of Water	HFCs	Hydrogen fuel cells
DP	Deposited plan	HHC	Hedland Health Campus
DSD	Department of State Development	HMC	Hydrated Magnesium Carbonate
EIA	Environmental Impact Assessment	IoT	Internet of Things
EIS	Environmental Impact Statement	IP	Improvement plan
EP	Environmental Protection	IS	Improvement scheme
EPA	Environmental Protection Authority	KAA	Knowsley Agriculture Area
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999	KAI	Kimberley Agricultural Investment
ESA	Environmentally Sensitive Area	KHC	Karratha Health Campus
ESD	Environmental Scoping Document	kl	kilolitres
FAO	Food and Agriculture Organisation (of the United Nations)	km	kilometre
Fe	Iron	km²	square kilometres
FHPA	Fish Habitat Protection Area	KPA	Kimberley Ports Authority
FIFO	Fly in/Fly out	KPA	Kimberley Port Authority
FIRB	Australian Government Foreign Investment Review Board	LDP	Local Development Plan
FMG	Fortescue Metals Group	LG	Local government
FTAs	Free Trade Agreements	LNG	Liquefied Natural Gas
FTTP	Fibre to the Premise	LTPIA	Land Tenure Pathway for Irrigated Agriculture
GDC	Gascoyne Development Commission	m	million
GDP	Gross Domestic Product	m²	square metres
GNH	Great Northern Highway	MAR	Managed Aquifer Recharge
GRP	Gross Regional Product	MgO	Magnesia
GRV	Gross Regional Value	MLA	Meat & Livestock Australia
		Mt	Million tonnes
		MW	mega watt

NAIF	Northern Australia Infrastructure Facility	RCS	Rural Clinical School
NBF	Northern Beef Futures	RDA	Regional Development Australia
NBN	National Broadband Network	RNG	Renewable Natural Gas
NGO	Non Government Organisations	ROC	Remote Operations Centre
NNTT	National Native Title Tribunal	RTO	Registered Training Organisation
NRT	North Regional TAFE	SAT	State Administrative Tribunal
NT	Native Title	SIAs	Strategic Industrial Areas
NTRB	Native Title Representative Bodies	SIBI	Sheep Industry Business Innovation
OHSE	Occupational Health and Safety Environment	SME	Small and medium size enterprise
P&D Act	Planning and Development Act 2005	SPMP	Separation Point Marine Precinct
PACER	Pacific Agreement for Closer Economic Relations	TPP	Trans-Pacific Partnership
PCA	Planning control area	TWAs	Temporary Workers Accommodation
PDD	Proposal definition document	UAV	Unmanned Aerial Vehicles
PER	Public Environmental Review	USDA	United States Department of Agriculture
PHADI	Pilbara Hinterland Agricultural Development Initiative	VET	Vocational Education and Training
PLB	Pastoral Lands Board	WACRH	Western Australia Centre for Rural Health
PPA	Pilbara Ports Authority	WAPC	Western Australian Planning Commission
RCEP	Regional Comprehensive Economic Partnership	WDM	Waste-derived Materials



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