



Infrastructure Australia's report to COAG in June 2011¹ states with respect to the Pilbara:

"The further development of the Pilbara is a vital initiative for the nation. The opportunity for industry, and the Australian, State and local governments to work to increase the wealth created from this region cannot be missed. It is clear that the development of major infrastructure, particularly ports, transport and freight corridors and energy and water to support this growth requires a holistic response. However, as is apparent from the pressures currently being experienced in the Pilbara, consideration must also be given to supporting social and community infrastructure."



Regional Development Australia Pilbara is openly welcoming and encouraging investment in the Pilbara from state, national and international parties in a broad spectrum of asset classes that are not only vital to future growth but can also offer sound returns on investment.

The Pilbara presents a heightened investment opportunity at present. The international investment advisory service Prequin² indicated in its April bulletin that long term infrastructure investment is viewed favourably in these times of global uncertainty. Large economic assets like airports and roads often have built-in monopolistic characteristics, and certain infrastructure projects like utilities invariably offer low elasticity of demand almost ensuring a market.

The scope and scale of development will be determined by all of the components of the 'enabling' environment. That is, in order to enable sustainable growth and development, key aspects of the environment need to be considered, namely political, economic, social, cultural, technological, (natural) environmental and legal factors. Specifically for the Pilbara, this includes legislation; processes; institutions (and their roles); the cost structure for households and businesses; and, sufficient investments in construction, housing, infrastructure and economic diversification.



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PILBARA REPORT

INVESTMENT PROSPECTUS SUMMARY 2012

Exploring opportunities in the nation's powerhouse

Your Invitation

The Pilbara Report 2012 comprises a suite of documents including this summary brochure, an investment prospectus and a detailed reference report. The purpose of these documents is to clearly articulate the level of investment required, and the opportunities available, to capitalise on the prosperity and growth of Australia's powerhouse - the Pilbara Region of Western Australia.

Western Australia is clearly the nation's most productive state largely due to resources sector activity in the Pilbara.

In 2010-11, the state boasted the highest per capita gross state product of \$93,593, some 50% higher than the national average. The gross regional product of the Pilbara Region has more than doubled since 2008 and contributed a massive \$14.04 billion in 2011-12 with a total regional population of just 50,000 people; and this level of activity is set to escalate dramatically.

In 2009, the Western Australian state government responded to the challenges of ensuring productivity and returns from the Pilbara are maximised and sustainable, by launching a \$1.2 billion Pilbara Cities programme. This initiative is designed to increase the regional population to 140,000 by 2035, by building vibrant regional cities in Port Hedland and Karratha, and upgrading numerous regional centres and townships throughout the region.

Correspondingly, the resources sector has announced ongoing investments in iron ore, oil and gas, and other projects of more than \$140 billion.

These committed and under construction projects are delivering major expansions in port, road, rail, extraction and processing facilities across the region.

The Pilbara Plan 2008 identified a developmental framework for the Pilbara (shown above right) which highlighted the critical and central role of land release for development. Stemming from this model was the need for affordable and diverse housing types and a range of community services.

Figure: Key Pilbara priorities framework



In 2012 the intent of this framework prevails, with land and housing needs even more critical, together with an added sense of urgency related to the provision of essential services to allow development to continue.

This is not to lessen the importance of community services provision; it's simply that the essential services of power, water, transport infrastructure and communications are already constraining development and further investment opportunities.

¹ Communicating the Imperative for Action, Infrastructure Australia report to Council of Australian Governments, June 2011
² <http://www.prequin.com/item/if-you-build-it-will-yields-come/102/5108>

Summary of Key Investment Opportunities

The investment opportunities presented in the centre spread are the major investment priorities for the Pilbara at present. Without exception they are large scale investment classes with a significant return on investment capability. Invariably they will require coordination and cooperation with state and local government agencies and will have access to a secure market.

Locality Specific Initiatives

There is also a range of alternative investments that focus on local area initiatives within each of the local government areas in the Pilbara. All four local councils have experienced significant growth in recent years and in response have undertaken town centre revitalisation projects and the development of much needed community facilities including health and medical facilities, schools, sport and recreation centres and playing fields.

This community building program is far from complete and further investment is necessary to complete some projects already underway and to commence new developments. A selection of these projects, all of which are detailed in the local authority growth plans is shown below.



Town of Port Hedland	
Port Hedland Aboriginal Arts & Cultural Precinct	\$40 million
South Hedland Community Centre & Library	\$18 million
Relocation of the Port Hedland Turf Club	\$25 million
Creation of new playing fields in South Hedland	\$8 million
Spoilbank Marina	\$176 million



Shire of Roebourne	
Roebourne Community Aquatic Centre	\$9.5 million
Community library	\$12 million
GP SuperClinic	\$23 million
Karratha Leisure Complex	\$16.3 million
Dampier Marina	\$125 million



Shire of East Pilbara	
Town hall/cultural building	\$40 million
Upgrade/expansion sewage treatment plant	\$5 million
Lions Park redevelopment	\$5 million
New Recreation Precinct	\$50 million



Shire of Ashburton	
Tom Price Sporting Precinct Upgrade	\$9 million
Tom Price Day Care Facility	\$8 million
Tom Price Village Green Development	\$28 million
Paraburdoo Community and Sporting Hub	\$16 million
Onslow Industrial Estate	\$10 million
Onslow Ring Road	\$10 million

Land and Housing

The Pilbara Cities growth plans³ indicate a medium term requirement for more than 15,000 dwellings, predominantly in Karratha and Port Hedland to accommodate the projected residential population in these two locations.

If the total demand for dwelling units forecast to 2015 is satisfied (8,614) this will require an average of 1,435 dwelling units to be brought to market each year.

The magnitude of the land and housing programme required to meet the Pilbara Cities vision is estimated to be in the order of \$9 billion, delivering approximately 35,000 new dwelling units through to 2035.

\$9 billion



Power supply

Major changes to the existing North West Integrated System (NWIS) are imminent. An immediate additional supply source of at least 100MW is required to meet short term demand through to 2015. Medium term demand estimated to be in the order of 350MW will require investment of at least \$930 million in power generation capacity.

Presently Horizon Power is required to wheel its power across systems owned by others with varying transmission capacities. Transmission system upgrades and interconnections require both short and medium term investment estimated at \$760 million.

\$1.69 billion



Water supply

The schemes servicing Karratha and Port Hedland are already at capacity and new supply is urgently needed to meet burgeoning demand. Current projections indicate the need for in excess of \$1.5 billion for capital investment in the West Pilbara Water Supply Scheme with almost half of this sum required in the period to 2015.

A new desalination plant of up to 15GL on the Burrup Peninsula is promoted as the most reliable short term source focused on Karratha, supplemented by the development of water extraction from the Bungaroo Valley (noting that this system requires extensive upgrading). Significant investment opportunities lie in this essential services sector.

\$1.5 billion



Waste water management

The second Karratha Waste Water Treatment Plant (WWTP) plant is at capacity and needs an estimated \$30 million of works for upgrading to cope with increased flows. An \$8 million temporary Packaged Treatment Unit has been installed to cope with immediate demands from an additional 1,250 housing lots. \$106 million has been allocated for the relocation of the Port Hedland WWTP to South Hedland, including the cost of returning treated effluent to Port Hedland for re-use in irrigation. These works have the potential to release land (up to 2,500 lots) for development. Further waste water conveyance improvements are required in Port Hedland and Newman at an estimated cost of \$35 million.

\$65 million



\$26 million



Waste management

Critical to the long term growth of the region is the establishment of a suitable Class IV waste management and hazardous waste disposal facility. Sites in the Shire of Roebourne and Town of Port Hedland are currently under investigation for this purpose. A facility of this nature carries an estimated development cost of \$18 million.

The Pilbara Planning and Infrastructure Framework also acknowledges the requirement to develop a system of townsite transfer stations and investigate recycling options in service hubs.

\$350 million



Airports

Airports throughout the region are experiencing a dramatic rise in patronage as a result of resources sector activity and a reliance on FIFO workers. Upgrades are required at all major locations to handle increased passenger loads. Karratha Airport is handling over 900,000 passengers per annum and critical passenger parking, terminal and airside improvements are valued at more than \$100 million. The Port Hedland stage 2 development in the Master Plan, scheduled for the period 2021-2031, is for further terminal expansion and apron expansions, plus a major development to upgrade a taxiway to Code E. Essentially this means the airport will be able to accommodate large aircraft and, thus, longer flight services. This stage is valued at \$49.4 million.

Newman airport requires extensive expansion including a new terminal and a second runway (an estimated \$60 million is required immediately). Onslow airport also needs upgrading; cost estimates for these works are currently being prepared.

>\$500 million



Ports

Port expansion programmes led by major resource companies are ongoing, yet there is some uncertainty around which players will proceed with developments in the Port Hedland outer harbour and the Anketell Port project. A new Pilbara Port Authority will be created to oversee significant growth at Port Hedland, Dampier, Anketell, Cape Lambert and Cape Preston.

Port Hedland's Lumsden Point has been identified as a possible location for a marine-based Common User Facility (CUF) consisting of wharves, lifting lay down areas, and repair, maintenance and load-out facilities. The project would be modelled on the successful Australian Marine Complex CUF at Henderson (Perth), enabling companies to work closer to their developments. Funding of \$5 million has been committed to undertake a feasibility study for the CUF.

>\$1 billion

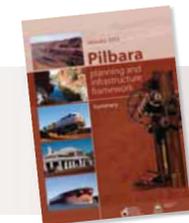


Roads

Significant road transport improvements are required, including the upgrade of the North West Coastal Highway (NWCH) to national highway status, thus, creating a new major supply chain link. Improved port access roads will be required and additional east west linkages connecting inland towns such as Newman, Tom Price, Paraburdoo and the myriad of mine sites to the NWCH and the ports.

Itemised improvements include road access around Wedgefield and duplication of the Redbank Bridge in Port Hedland, and the Karratha western bypass to Dampier road. A new coastal road connection from Karratha to Anketell is estimated at \$200 million.

Alternative investment and economic diversification opportunities



New and alternative industries that make use of the region's competitive advantages such as abundant land, very high renewable energy potential, proximity to Asian markets, the raw natural beauty of the landscape and coast line and opportunities for natural, cultural and industrial tourism are critical to the region's long term sustainability.

The Pilbara Planning and Infrastructure Framework identifies a suite of business opportunities including:

- Primary Production
- Port Based User Facility
- Supply chain expansion
- Tourism and hospitality
- Distribution and retail
- Community and governance
- Defence facilities
- Education and training
- Business, media, IT and consulting
- Project-ready land

The Pilbara Report 2012 main report recommends the establishment of a special economic zone in the region. The policies and incentives available within an SEZ are designed to attract investment that diversifies and increases employment, the development of new technologies, the economic base and entrepreneurial and technical capacities.

The creation of business incubation and accelerator facilities is also proposed. Feasibility studies and business cases for these facilities have established a developmental model with proven viability for the Shires of East Pilbara, Roebourne and Ashburton. Work is currently underway to determine that scale and scope of investment required for Port Hedland.

A selection of diversification options are also detailed including:

Bio-fuels	High energy fuel crops using sorghum and arundo donax are currently being trialled in the East Pilbara with results exceeding expectations.
Hi-Tech Greenhouse Production	Large scale hydroponic greenhouses for the cultivation of tomatoes, peppers and lettuce have been assessed with an IRR in the range of 8% worst case to 13% best case, on a capital set up cost of \$12 million.
Aquaculture fish farming	Both on-shore and offshore options have been explored with an IRR in the range of 20% worst case to 51% best case, on a \$3.6 million investment.
Fish processing factory	To value add to the fish farming operation a fish processing factory has been investigated. An IRR of 5% worst case to 52% best case has been assessed on an establishment cost of \$1.2million although operating costs are high.
Business incubators	Establishment of paired business and residential premises to allow entrepreneurs to overcome the major barrier to economic diversification and local supply chain completion. Economic multipliers at least 20 times more powerful than infrastructure projects are forecast.
UWA Pilbara	To assess the feasibility of Pilbara-based UWA facilities that will support the delivery of world-class research and professional development capabilities to enhance innovation and productivity and contribute to a more vibrant, healthy, influential and sustainable region.

The long term sustainability of the Pilbara Region will be dependent on local employment in a diversified economy. Even though the resources sector is likely to underpin the region's productivity there is a need to develop a local economy that is not totally reliant on commodity process.

³ Karratha City of the North Growth Plan, Port Hedland Port City Growth Plan