

Manager Projects Access
PO Box 8469
PERTH BC WA 6849

Dear Sir/Madam

DRAFT DETERMINATION ON THE NEW FACILITIES INVESTMENT TEST APPLICATION FOR THE MID WEST ENERGY PROJECT (SOUTHERN SECTION)

Thank you for the opportunity to make a submission on the draft determination relating to the first stage of the Mid West Energy Project (MWEP). As a State government statutory authority that aims to progress the sustainable development of Western Australia's Mid West, the Mid West Development Commission is well placed to comment on key strategic matters such as the provision of energy to the region.

From the outset, the Commission wishes to express its surprise and disappointment at the ERA's latest determination given that energy is widely considered to be the most significant impediment to the future development of the Mid West region. This is evidenced by the MWEP being listed as a flagship project (highest priority category) in the Mid West Investment Plan (attached), which was developed by MWDC in 2011 following extensive community consultation.

In addition, the draft Mid West Regional Planning and Infrastructure Framework, recently released by the Minister for Planning, highlights one of the ten flagship planning/infrastructure priorities for the Mid West is the development of a Mid West Energy Strategy. In response, the Commission in partnership with the Office of Energy has commissioned consultants SKM to develop this Strategy. The draft Strategy highlights the importance of the MWEP to the region and to the State. A copy of the final report, expected to be available in early 2012, can be provided to the ERA.

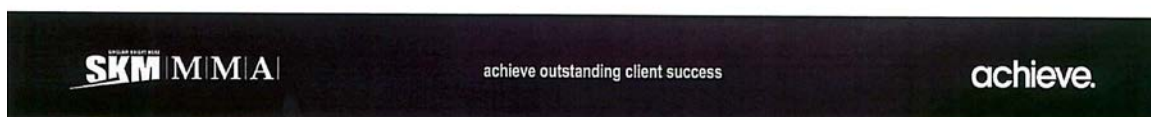
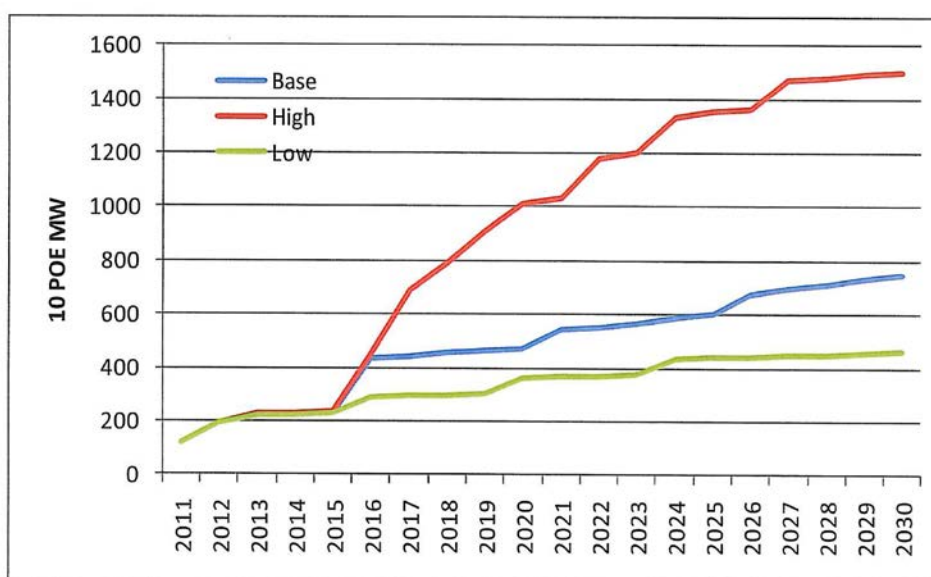
Some of the key findings of the draft Mid West Energy Strategy include:

- *The demand forecasts have shown that demand is expected to grow significantly. Growth will be even higher if some of the magnetite mines proceed – this is in prospect given the advanced stage of development of some of the projects. Even with minimal development, demand is likely to increase significantly.*
- *As most of the early magnetite mine developments are likely in the southern part of the Mid West region, there is a need to focus on the infrastructure essential to make these developments proceed.*

- A key element to enhancing the development prospects is the upgrade of the interconnection to Eneabba (the Pinjar–Eneabba upgrade). However, a “chicken and egg” situation has developed in that this upgrade is not likely to be approved under the NFIT unless the mines proceed (despite the wider benefits provided by the upgrade) and yet many of the mines are not likely to proceed unless the upgrade is approved.

The graph below taken from the draft Mid West Energy Strategy clearly illustrates that even under a low case scenario (Oakajee and many related resources projects do not proceed), the Mid West region is at or very close to power capacity and significant network augmentation will be required by 2015/16.

Mid West maximum demand



Mid West Energy Strategy (Draft), Nov 2011

To further illustrate, the Geraldton Port Authority has been advised by Western Power that only an interruptible power supply is available from the Rangeway substation to meet the port’s growth in power demand. This is one of a number of examples where power infrastructure constraints have the potential to impact on Mid West trade and economic activity and illustrates the critical power situation in the region.

Strategic priorities aside, it is important to state the Commission’s support for the Economic Regulation Authority’s (ERA’s) approach to protecting existing customers. In its quest to encourage the development and growth of the Mid West, the Commission recognises the necessity to facilitate the diversification of the region’s economy without impinging on the viability of established businesses. The ERA has generally demonstrated a balanced and considered approach to achieving this outcome.

Draft Determination

11. *“The Authority’s view is that these risks should be borne by the new loads that would benefit from the new assets, or by Western Power, rather than existing customers.”*

The Commission considers that the benefits that would come from the new assets would reach much further than Karara Mining and Extension Hill Pty Ltd. The flow on effects of significant new loads being connected to the upgraded transmission infrastructure would generate and stimulate new business in the region.

It has been quoted recently that WA is entering a second mining boom, after the State posted record annual growth figures. ABARE expects the mining sector to have the highest energy consumption growth rate over the next two decades. Indeed, energy consumption growth rates in Western Australia and Queensland are likely to exceed the national average, reflecting the demands of the mining and petroleum industries.

The MWEF is vitally important to the Mid West and Western Australia more broadly. Not only will it provide much needed power into the region but it will also provide a ‘spine’ from which to send energy generated within the region to major markets in the metropolitan and southern parts of the State. Generation of power towards the edge of the SWIS also realises economic and environmental savings given the loss of power to centres such as Geraldton and Kalbarri is in the order of 18-21% (of the original power generated).

In addition the MWEF has the potential to mitigate against the SWIS’s over reliance on a few key power infrastructure spines (eg Dampier Bunbury Natural Gas Pipeline; 330KV from Collie to Perth) by geographically diversifying the infrastructure network and also encouraging a diversification of generation type, including renewable energy sources. Combined with some well thought out policy adjustments, this has the potential to deliver a more competitive power market in Western Australia, which may put downward pressure on prices.

Without augmentation of the existing line, the SWIS will struggle to provide a safe, reliable, quality power supply to where is it needed right now for the highest possible use. As reported in KPMG’s *Australia’s resources boom: the infrastructure ripple effect*, “infrastructure, or rather the lack of it, stands as a serious obstacle to further investment in Australian resources.”

13. *“The Authority recognises that the proposed augmentation potentially would enable significant new load and generation to be connected to the network which would bring increased revenues to Western Power. However, the majority of the proposed new incremental revenue [as provided by Western Power] relates to two new mining operations...”*

Western Power acknowledges that in its application, the case focused on incremental revenue from only Karara Mining and Extension Hill. In addition to these two projects, a number of supporting industries and other major projects will come on line as a result of increased mining activity (MWDC’s draft Major Projects

Summary December 2011 attached). In addition, the Mid West region is possibly the most prospective in Australia for renewable energy. Very few of the following projects proposed for the region will come to fruition without the Mid West Energy Project.

Name	Owner	Fuel type	Technology	Total capacity (MW)	Expected commencement
Mingenew	Worley Parsons	Solar	Solar thermal	250	2011
Chapman	Investec	Solar/diesel	Solar photovoltaic with diesel back-up plant	50	2015
Mumbida	JV Macquarie Bank and Verve Energy	Wind	Turbine	55 (Increasing to 81 MW in Stage B)	Dec 2012 (Stage B not known)
As yet un-named	Confidential	Wind	Turbine	160	Not known
Northampton	Protean Energy	Wave	Floating wave technology	5	2014?
Dongara	Green Rock Energy	Geothermal	Turbine	5 (final size 300)	2015
Jurien-Woodada	New World Energy	Geothermal	Turbine	3 (final size 300)	2014
Perenjori	Mid West Energy	Solar	PV and solar thermal	200	2014
Eneabba	Mid West Energy	Gas and solar	Gas and solar	200 (100 gas, 100 PV)	2016
As yet un-named	Confidential	Wind	Turbine	250	Not known

15. *“...may lead to existing customers being exposed to an unacceptable risk of increased charges with no commensurate benefit.”*

The Commission understands that there are currently approximately 200 Mid West consumers that draw in excess of 50MW. It is these users of power that could potentially be affected by increased tariffs in the range of 1 to 5%. The Commission recommends that in order to quantify and qualify the appetite of customers for this risk, these businesses need to be identified and informed of the potential impacts that should be expected if the MWEF does not proceed ie 20hrs of curtailability are expected during the summer of 2012/13 and up to 80hrs during the same period in 2014/15. Once this information is relayed it would then be pertinent to ask:

- To what extent would potentially impacted stakeholders be prepared to accept these risks?
- What benefit would existing customers derive from the augmentation?
- What is the appetite for the risk of delaying the project as opposed to the risk of an increase in their energy bill?

As previously stated, whilst the ERA believes power tariffs to some businesses may increase, it is the Commission's view that the MWEF, with appropriate policy adjustments, could create a more competitive energy market, exerting downward pressure on prices.

97. *“Western Power notes that it has excluded natural load growth from its forecasts of incremental revenue on the basis that it is not a primary source of revenue growth for the Mid West Energy Project...”*

The Western Australian population is forecast to grow from around 2.2 million people in 2009 to around 2.8 million in 2031, with 93 per cent in the area served by the SWIS. The population of the Mid West currently sits at around 54,000. One economic forecast produced by an independent consulting firm (based on direct employment impacts of major projects, no multiplier effect) is for the population of the Mid West to reach more than 72,000 by 2021. The same forecast with a multiplier effect results in a population of almost 80,000 by 2021. Based on these figures, it may be prudent to consider the potential for a significant (up to 40% or more) increase in the Mid West population by 2021.

113. *“Accordingly, the Authority considers that only CMD block loads that have reached Final Investment Decision (FID) should be allowable for the purposes of this incremental revenue test.”*

The Commission asserts that it is important that an appropriate risk rating is used to determine the viability of the Mid West Energy Project. Few would question that the 330kV line would yield the highest long term economic and social returns. Energy is a catalyst for new projects. It has been suggested that a part aspirational approach to FID is worth considering.

In a classic “chicken and egg” situation as previously stated, without investment in the State’s energy infrastructure, some projects will struggle to materialise. For other projects, not upgrading the existing system will add to their costs, jeopardising their long term viability. Again, as KPMG comments, “Unless the impediments to infrastructure investment are addressed, Australia faces the possibility that its ‘infrastructure deficit’ will balloon and that what resources are available will be increasingly devoted to the most visible and politically palatable infrastructure projects...”

It is the view of the Commission, and indeed all key stakeholders, that addressing the Mid West’s power needs is the single biggest issue facing the region at this point in time. I therefore look forward to a positive outcome for Western Power’s New Facilities Investment Plan.

If any of the points raised in this submission require clarification, please do not hesitate Anne Finlay on 0428 210 709.

Yours sincerely

NEIL CONDON
A/CHIEF EXECUTIVE OFFICER

12 December 2011



Government of Western Australia
Mid West Development Commission



Mid West Major Projects Summary

DECEMBER 2011



DISCLAIMER

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Mid West Major Projects Summary

DECEMBER 2011

The **Mid West Major Projects Summary** is published periodically by the Mid West Development Commission to provide an indication of the level of development activity in the Mid West Region.

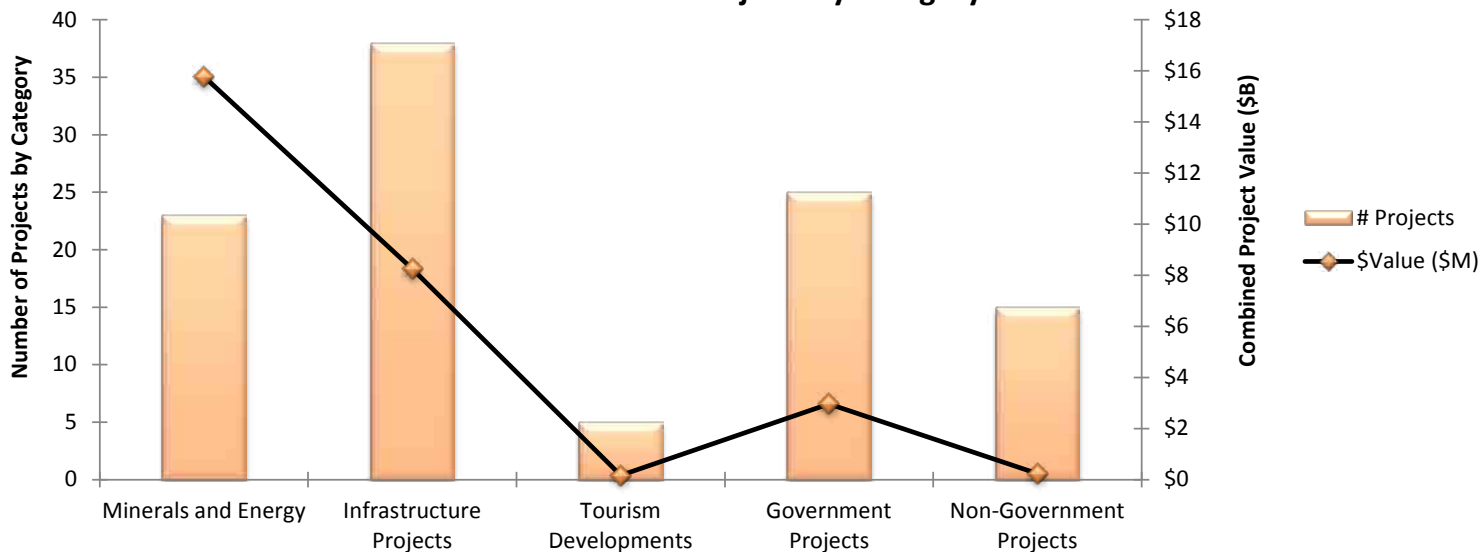
This edition of the Mid West Major Projects Summary contains information on over 100 projects with a combined construction value of more than \$27 Billion (NB estimated costs not available for all projects). In addition, the value of residential building approvals in the Mid West for 2010/11 was \$183 Million (source: ABS).

The number and value of projects by category is illustrated in the graphs below.

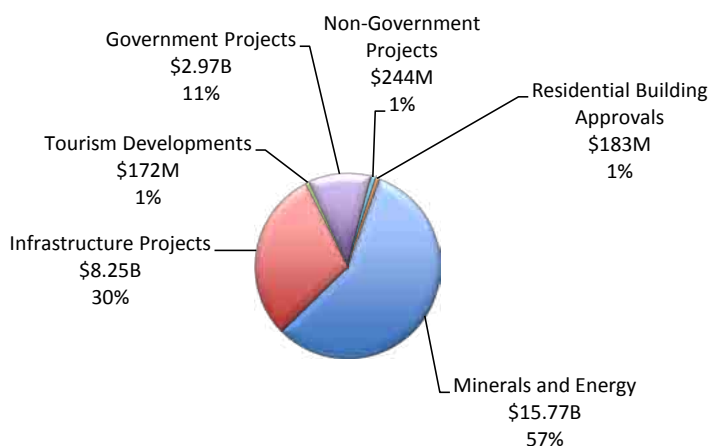
The information contained in this publication is indicative only. It is collected through the course of usual Commission activities, including liaison with project proponents. For more detailed project information please contact project proponents directly.

If you are aware of a project that should be included in the next edition of the Mid West Major Project Summary, please contact the Commission on (08) 9921 0702 or info@mwdc.wa.gov.au.

Number and Combined Value of Projects by Category



Approximate Value of Projects by Category



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Minerals and Energy

Copper / Gold

Sandfire Resources - DeGrussa

Resource: Copper / Gold

Cost: \$384M

Status: Definitive Feasibility Study completed in Q2 2011, with financing finalised and construction and pre strip mining underway.

Location: Meekatharra, 150km N

Jobs – construction: 650

Jobs – operations: 400

Projected Annual Output: Processing capacity of 1.5 Mt ore throughput, 3 years at 300,000 tpa, then 4 years at 220,000 tpa of concentrate grading 27% Cu. Life-of-mine operating costs \$1.02/lb (C1 cash costs).

Projected Resource Life: 7yrs

Construction Start: Q2 2011

Production Start: DSO: Q1 2012; Concentrate: Q3 2012

www.sandfire.com.au

MMG - Golden Grove's Gossan Hill expansion

Resource: Copper concentrate

Cost: \$22M

Status: Golden Grove comprises the Scuddles and Gossan Hill underground mines and surface processing operations. The Gossan Hill deposits are volcanic hosted massive sulphide-style deposits, which contain zinc and copper mineralisation and also contain associated silver, gold and lead mineralisation. This expansion consists of a new copper open pit being developed over the existing underground workings at the Gossan Hill underground mine.

Location: Yalgoo, 100km SE

Jobs – construction: 60 new jobs between construction and operations

Jobs – operations: 60 new jobs between construction and operations

Projected Annual Output: 100,000 tpa+ copper concentrate

Projected Resource Life: 3yrs

Construction Start: Q4 2011

Production Start: Q1 2012

www.mmg.com/pages/825.aspx

Ramelius Resources - Mount Magnet

Resource: Gold

Cost: \$40M

Status: Mining proposal and environmental approvals are complete. Open pit mining commenced in September 2011, with mill refurbishment near completion. Gold production is scheduled to commence in January 2012.

Location: Mount Magnet, 4km W

Jobs – construction: 110

Jobs – operations: 160

Projected Annual Output: 100,000 oz with potential to increase output by incremental expansion of mine / mill size and / or addition of high grade resources.

Projected Resource Life: 5-7yrs

Construction Start: Q3 2011

Production Start: Q1 2012

www.rameliusresources.com.au

Silver Lake Resources - Murchison

Resource: Gold

Cost: \$65M

Status: Silver Lake has gold and base metal tenements at Caustons, Tuckabianna West, Hollandaire, Moyagee, Comet and Lena – collectively known as Murchison. The proposed strategy for the Murchison is to develop their second gold mining operation (the other is not in the Mid West) with multiple mines to feed a central processing facility. The company has acquired a processing mill that is capable of 1.2 Mtpa and a decision to develop the project was made on 12 November 2011.

Location: Cue, 20-30km SE

Jobs – construction: 60

Jobs – operations: 180

Projected Annual Output: 100,000 oz

Projected Resource Life: 8-10yrs

Construction Start: Q1 2012

Production Start: Q1 2013

www.silverlakeresources.com.au



Hematite / Magnetite

Asia Iron Holdings - Extension Hill Magnetite Project

Resource: Magnetite

Cost: \$3B

Status: Environmental approvals for 10 Mtpa of magnetite concentrate by slurry pipeline for export through Geraldton Port have been received. Construction of initial accommodation facilities commenced in October 2011 and will be completed in January 2012. Implementation Study (Bankable Feasibility Study) completion is expected in December 2011 with a formal go ahead decision expected in the March quarter of 2012.

Location: Perenjori, 85km E

Jobs – construction: 2500

Jobs – operations: 500

Projected Annual Output: 10 Mtpa magnetite concentrates

Projected Resource Life: 50yrs+

Construction Start: H1 2012

Production Start: Q4 2014

Crosslands Resources - Jack Hills Expansion Project (JHEP)

Resource: Magnetite

Cost: \$3.9B

Status: Resource estimate updated June 2011 – 3.23 billion tonnes @ 32.30% Fe. Bankable Feasibility Study (BFS) underway. Environment, water and heritage approvals well advanced.

Location: Jack Hills, 350km north east of Geraldton

Jobs – construction: 2000

Jobs – operations: 1300

Projected Annual Output: 23 Mtpa+ magnetite and hematite concentrate with some direct shipping ore in early years.

Projected Resource Life: 39yrs

Construction Start: Subject to successful negotiation of infrastructure agreement with OPR and project go ahead

Production Start: Subject to successful negotiation of infrastructure agreement with OPR and project go ahead

www.crosslands.com.au

Ferrowest - Yogi Mine Project

Resource: Magnetite Iron Ore Concentrate

Cost: \$830M

Status: Pre feasibility complete. Investment agreement entered with Sichuan Taifeng Group of China. FIRB approval has just been received and work on a Bankable Feasibility Study is currently gearing up.

Location: Yalgoo, 14km E

Jobs – construction: Approx 1,000

Jobs – operations: 200

Projected Annual Output: 4.5 Mtpa (67% Fe)

Projected Resource Life: 20yrs+

Construction Start: Q3 2013

Production Start: Q2 2015

www.ferrowest.com.au

Ferrowest - Eradu MPI Project

Resource: Pig Iron produced from magnetite concentrate from Yogi Mine

Cost: \$430M

Status: Pre Feasibility Complete. Timeline and activity timed to match the Yogi Mine Project.

Location: Eradu, 60km E of Geraldton

Jobs – construction: Approx 1,000

Jobs – operations: 93

Projected Annual Output: 1 Mtpa merchant pig iron (96% Fe)

Projected Resource Life: 30yrs+

Construction Start: Q3 2013

Production Start: Q2 2015

www.ferrowest.com.au

Golden West Resources - Wiluna West

Resource: Hematite

Cost: Stage 1 = \$15M; Stage 2 = \$15M; Stage 3 TBC

Status: This is a three stage project with stage one planned to export 1 Mtpa of direct shipping ore through Esperance for 2-3yrs. Stage two is to increase to 2-3 Mtpa once Esperance port upgrades are completed in 2013. A native title agreement has been finalised, a mining approval application lodged for stage one mining and a mining proposal submission is underway, targeting April 2013 for approval. The three stage development would enable output to increase to 10 Mtpa, with the Detailed Feasibility Study for the 10 Mtpa project due for completion in December 2012. Production of 2-3 Mtpa is planned for 2013, with 7-10 Mtpa planned for 2016. Stages two and three will be dependent on rail and port enhancements either at Esperance or Oakajee.

Location: Wiluna, 34km W

Jobs – construction: Not stated

Jobs – operations: Not stated

Projected Annual Output: 1 Mtpa (Stage 1) increasing to 3 Mtpa (Stage 2) and 10 Mtpa (Stage 3) direct shipping ore

Projected Resource Life: Minimum 15yrs (@ 10 Mtpa)

Construction Start: Q1 2012 (Stage 1)

Production Start: Q2 2012 (Stage 1) - approvals / infrastructure dependent

www.goldenwestresources.com

Karara Mining Ltd - Karara Iron Ore Project

Resource: Hematite & Magnetite

Cost: \$2.57B

Status: Structural steel erection underway. Water pipe from Mingenev to Karara complete and commissioned. Rail spur from Karara to Morawa 92% complete. Geraldton Port upgrade including new berth, shiploader, storage facility and dual wagon train unloader underway. All infrastructure scheduled for Q1 2012 completion.

Location: Morawa, 80km E

Jobs – construction: 1500+

Jobs – operations: ~500

Projected Annual Output: Initially 2 Mtpa hematite ore and 8 Mtpa magnetite concentrate

Projected Resource Life: 30yrs+

Construction Start: Q4 2009

Production Start: Hematite commenced; magnetite expected in Q2 2012

www.gindalbie.com.au

Mount Gibson Mining - Extension Hill

Resource: Hematite

Cost: \$73M

Status: Extension Hill village has been commissioned and clearing and pioneer works have commenced. Upgrade of haul road, railway siding and railway line to Geraldton completed and ore haulage commenced. Geraldton berth 5 storage structurally and mechanically complete, awaiting power supply to enable final dry commissioning.

Location: Perenjori, 85km E

Jobs – construction: 150

Jobs – operations: 100

Projected Annual Output: 3 Mtpa hematite ore

Projected Resource Life: 5yrs

Construction Start: Commenced 2010

Production Start: Q3 2011 with first ore shipments expected in Q4 2011

www.mtgibsoniron.com.au

Sinosteel Midwest Corporation - Blue Hills

Resource: Hematite

Cost: \$25M

Status: Planning site establishment and construction for production from Q4 2012

Location: Morawa, 80km E

Jobs – construction: 100

Jobs – operations: 110

Projected Annual Output: 1.5 Mtpa hematite ore

Projected Resource Life: 3yrs (2013-2016) - additional hematite resources subject to further environmental approval

Construction Start: 2012

Production Start: Pre-strip from Q4 2012; ore exports from Q1 2013

www.smcl.com.au

Sinosteel Midwest Corporation - Koolanooka

Resource: Hematite

Cost: \$70M

Status: In production. A magnetite resource of 488 Mt has also been identified with metallurgical test work underway in 2011 and further exploration and assessment planned for 2012-13.

Location: Morawa, 20km E

Jobs – construction: 150

Jobs – operations: 110

Projected Annual Output: 1.5 Mtpa hematite ore

Projected Resource Life: 3yrs

Construction Start: Complete

Production Start: Commenced early 2010

www.smcl.com.au



Sinosteel Midwest Corporation - Weld Range

Resource: Hematite

Cost: \$2B

Status: Project on hold pending commercial agreement on rail and port tariffs with Oakajee proponents and timing of rail and port infrastructure. Bankable Feasibility Study complete.

Location: Cue, 60km NW

Jobs – construction: 1100

Jobs – operations: 850

Projected Annual Output: 15 Mtpa hematite ore

Projected Resource Life: 15yrs

Construction Start: On hold

Production Start: TBD

www.smcl.com.au

Lead

Magellan Metals - Wiluna

Resource: Lead

Cost: US\$135M (capitalised as at September 2005)

Status: Currently in care and maintenance, with the mine and processing plant maintained in a state of readiness for a restart of operations. Awaiting approval to restart from the Minister for the Environment.

Location: Wiluna, 30km W

Jobs – construction: NA

Jobs – operations: 205

Projected Annual Output: Approx 85,000 tpa Pb metal in concentrate

Projected Resource Life: 10yrs+

Construction Start: No new construction before restart

Production Start: Subject to EPA Ministerial approval

www.magellanmetals.com.au

Mineral Sands

Gunson Resources - Coburn

Resource: Mineral Sands

Cost: \$180M

Status: Definitive Feasibility Study announced Q1 2010. Two thirds of Amy Zone deposit has received government environmental approval for mining with the northern third not yet approved. The company reports that it is currently seeking to attract a minority partner to help fund the mine development, in exchange for an assured long term supply of zircon.

Location: Geraldton, 250km N

Jobs – construction: 200

Jobs – operations: 120

Projected Annual Output: 90 ktpa ilmenite, 40 ktpa zircon, 9 ktpa rutile and 7 ktpa Leucoxene

Projected Resource Life: 23.5yrs

Construction Start: Q1 2012

Production Start: Q4 2013

www.gunson.com.au

Iluka Resources - Eneabba Mining Re-start and Synthetic Rutile Kiln 3 Extension

Resource: Mineral Sands

Cost: \$35M

Status: Mining expected to resume at the end of 2011, with production commencing in Q1 2012. The upgrade to the mineral separation plant to accommodate the addition heavy mineral concentrate volumes and the major maintenance outage of synthetic rutile kiln 3 (SR3) will be completed in Q4 2011.

Location: Eneabba

Jobs – construction: 50

Jobs – operations: 160

Projected Annual Output: 130 ktpa synthetic rutile, 25 ktpa zircon and 25 ktpa rutile

Projected Resource Life: 3yrs (production may be extended, subject to environmental and regulatory approvals, and further technical and financial assessment)

Construction Start: Q2 2011

Production Start: Q1 2012

www.iluka.com

Uranium

BHP Billiton - Yeelirrie

Resource: Uranium

Cost: \$500M

Status: Environmental approvals process has been put on hold by BHP. The company's focus is currently on the expansion of their Olympic Dam project in South Australia.

Location: Wiluna 75km SW

Jobs – construction: 650

Jobs – operations: 300

Projected Annual Output: Initially 2-2.5 ktpa increasing to 5 ktpa uranium oxide concentrate (yellowcake)

Projected Resource Life: 20-40yrs

Construction Start: Q2 2013

Production Start: 2014

www.bhpbilliton.com

Mega Uranium - Lake Maitland

Resource: Uranium

Cost: \$101M

Status: Feasibility stage. A Test Pit Program forming part of its Feasibility Study has been completed. The project's Environmental Scoping Document was approved by the EPA in October 2010. The Environmental Review and Management Plan (ERMP) will be released for public review at an appropriate time.

Location: Wiluna, 130km SE

Jobs – construction: 450

Jobs – operations: 180

Projected Annual Output: 1 ktpa uranium oxide concentrate (yellowcake)

Projected Resource Life: 10yrs+

Construction Start: 2013

Production Start: 2014

www.megauranium.com

Toro Energy - Wiluna

Resource: Uranium

Cost: \$280M

Status: Processing Pilot Plant has confirmed alkaline tank leach process as the preferred option and recent resource upgrade has increased regional resources by 32% to just over 50Mlbs. Bankable Feasibility Study will commence in Q1 2012. Environmental approvals are underway with the EPA currently assessing Toro's Environmental Review and Management Plan, which was open for public consultation for 14 weeks until 31 October 2011. State and Federal Government approvals are anticipated in mid 2012.

Location: Wiluna, 17km SE

Jobs – construction: 350

Jobs – operations: 170

Projected Annual Output: 0.8 ktpa uranium oxide concentrate (yellowcake)

Projected Resource Life: 10yrs

Construction Start: Q3 2012

Production Start: Q4 2013

www.toroenergy.com.au

Vanadium

Atlantic Ltd - Windimurra

Resource: Vanadium

Cost: US\$335M raised in debt and AU\$55M in equity to complete the previously mothballed project

Status: The facility is currently undergoing process commissioning following completion of construction in September and subsequent demobilization of construction personnel. The project is expected to achieve first ferro-vanadium production in the December calendar quarter of 2011.

Location: Mt Magnet, 80km SE

Jobs – construction: 400

Jobs – operations: 140

Projected Annual Output: Targetting 6,300 tpa contained vanadium as ferrovanadium.

Projected Resource Life: 28yrs following a 30% increase in JORC compliant vanadium Ore Reserve estimate to 128 million tonnes at 0.47% V2O5

Construction Start: Commenced Q1 2011

Production Start: Q4 2011

www.windimurra.com.au

Reed Resources - Barrambie

Resource: Vanadium

Cost: \$629M

Status: Proponent has advised that they have entered into a MOU with Chinese and Australian investors that includes an engineering procurement and construction contract (EPC) and project financing for the Barrambie project. Use of Chinese equipment / services will significantly reduce costs (from that stated), with an updated fixed price EPC due early in mid 2012.

Location: Sandstone, 64km NW

Jobs – construction: 400

Jobs – operations: 250

Projected Annual Output: 11,200 tpa vanadium pentoxide (V2O5) or 7,700 tpa ferrovanadium (FeV80)

Projected Resource Life: Minimum 12yrs at throughput of 3.2 Mtpa

Construction Start: 2013

Production Start: 2015

www.reedresources.com

Infrastructure

PROJECT STATUS

Planned	The project has progressed significantly from the conceptual stage but it is not yet committed to proceed
Committed	The project is committed to proceed
Construction	The project is under construction
Complete	The project has reached practical completion

Communications

Department of Commerce (DOC) - Regional Mobile Communications Project (RMCP)

Cost: \$40M

Status: Planning

Location: WA

Details: The RMCP will extend mobile communications services to provide (near) continuous highway coverage, as well as coverage to (and between) the greatest possible number of nominated towns and communities in regional and remote parts of WA. It will include mobile tower / base station infrastructure and portable mobile voice and wireless broadband communications systems. The Mid West has been identified as a Priority 1 area.

This project has received funding from Royalties for Regions.

Construction Start: Q1 2012

Construction Complete: 2013 /14

www.commerce.wa.gov.au

NBN Co Ltd & Department of Broadband Communications and the Digital Economy - National Broadband Network (NBN) fixed wireless

Cost: Not stated

Status: Planning

Location: Geraldton. [Maps – direct link](#)

Details: Geraldton is one of five Australian regional cities to receive fixed wireless. This uses 4G technology to service a dedicated number of premises within a cell, each with a wireless antenna affixed to their premise.

Construction Start: Q3 2011 (design)

Construction Complete: Activating first customers in mid 2012

www.nbn.gov.au / www.nbnco.com.au

NBN Co Ltd & Department of Broadband Communications and the Digital Economy - National Broadband Network (NBN) Interim Satellite Service

Cost: Not stated

Status: Available

Location: Geraldton

Details: The Satellite First Release Service (SFRRS) will provide an interim satellite services for premises that have previously had limited access to broadband. This is designed to provide a transition from the Australian Broadband Guarantee (ABG) program.

Construction Start: Q3 2011

Construction Complete: Available now - detail on [NBN website](#)

www.nbn.gov.au / www.nbnco.com.au

NBN Co Ltd & Department of Broadband Communications and the Digital Economy - National Broadband Network (NBN) second release site

Cost: Not stated

Status: Planning

Location: Geraldton. [Maps – direct link](#)

Details: A Federal Government Initiative, the NBN is a new, wholesale only, open access high speed broadband network. Geraldton is one of 19 second release sites to receive Fibre to the Premises (FTTP). The first 2,800 premises are underway, with the next 16,500 to start in next 12 months. Maps of the next stages are due in March 2012.

Construction Start: Q4 2011

Construction Complete: Activating first customers in October 2012

www.nbn.gov.au / www.nbnco.com.au

NBN FIXED WIRELESS COVERAGE GERALDTON SURROUNDS



WA Police, FESA and Department of Corrective Services - Community Safety Network Project (CSNP)

Cost: \$80.3M (covers several regions)

Status: Planning

Location: WA

Details: The CSNP will implement two integrated purpose-built, secure and reliable digital radio communications networks. The regional Trunked Radio Network is an expansion of the existing trunked radio network to the key Regional Centers of Albany, Geraldton, Kalgoorlie and the Pilbara, with access for Police, DCS and FESA. The network will provide a resilient trunked radio communications network and benefits to the community through a more informed, responsive, and coordinated public safety and law enforcement capability in regional population areas. The Conventional Digital Radio network will replace the current analogue police regional radio network throughout regional WA to provide a fit-for purpose regional communications network for Police to ensure current law enforcement operations and business continuity are sustainable.

This project has received funding from Royalties for Regions.

Construction Start: Q2-3 2011

Construction Complete: 2016

www.police.wa.gov.au

Oakajee

Oakajee Port and Rail

- Temporary Accommodation Camp

Cost: \$95M

Status: Planning

Location: Chapman Valley, 20km north of Geraldton (Oakajee Industrial Estate)

Details: A temporary accommodation camp for the Oakajee Port & Rail development to house a potential workforce of up to 1,500 over a three year period. The camp will be developed in two stages and will incorporate 375 x 2-4 person accommodation units, 27 laundry buildings, a gymnasium, sports courts, swimming pool and administration and other common areas.

Construction Start: Q2 2012

Construction Complete: 2015

www.opandr.com

Oakajee Port and Rail - Oakajee Deep Water Port

Cost: ~\$2B (subject to review) (including \$678M State and Federal contribution to common user infrastructure)

Status: Planning

Location: Oakajee, 23kms north of Geraldton

Details: The development of an import/export, multi-user, multi-function deepwater port to support a world class industrial estate. Major engineering and environmental management plans underway. The State and Australian Government have committed \$678M to common user infrastructure.

Construction Start: After acceptance of a Bankable Feasibility Study

Construction Complete: ~2015

www.opandr.com

Oakajee Port and Rail - Mid West Rail Infrastructure

Cost: ~\$2B (subject to review)

Status: Planning

Location: Mid West

Details: The development of heavy freight rail to link proposed northern mines (Weld Range and Jack Hills) to the proposed Oakajee Port. Preliminary engineering completed for port and rail supply chain capable of handling up to 75 Mtpa. Key environmental, heritage and other regulatory approvals well advanced.

Construction Start: After acceptance of a Bankable Feasibility Study

Construction Complete: ~2015

www.opandr.com

Landcorp - Oakajee Industrial Estate

Cost: To be confirmed - dependent on client needs

Status: Planning

Location: Chapman Valley, 20km north of Geraldton

Details: The Oakajee Industrial Estate has been designed to accommodate uses related to the proposed port and rail project. Heavy industry core – 1,134ha, general industry – 196ha and >4,000ha of buffer zone. Has potential to cater for downstream processing of Mid West sourced minerals and to export through a deep water port. A Structure Plan for the estate has been endorsed by the Shire of Chapman Valley and is now with the Western Australian Planning Commission for its consideration.

Construction Start: Dependent on client needs

Construction Complete: ~2015

www.landcorp.com.au/project/oakajeeindustrialestate

Transport

City of Geraldton-Greenough - Airport Upgrade

Cost: \$50M+

Status: Planning

Location: Geraldton

Details: Planning and detailed design underway for the construction of a 2,600 metre Code 4E runway and associated taxiway and apron infrastructure, which will enable the operation of larger Jet aircraft to A330 / B787 class by RPT and Charter airlines.

Construction Start: H2 2012 (depending on availability of State and Federal funding)

Construction Complete: TBD

www.geraldtonairport.com.au

Karara Mining Ltd - Karara Geraldton Port facilities

Cost: \$250M+

Status: Construction

Location: Geraldton Port

Details: Construction of a dual wagon tipper train unloader, 255,000t storage facility and new berth 7 and 5,000 tph shiploader, with a combined annual capacity of around 16 Mtpa. All infrastructure owned and operated by Karara.

Construction Start: Commenced 2010

Construction Complete: Q1 2012

www.kararamining.com.au

Mount Gibson Iron / Geraldton Port Authority - Geraldton Port Train Unloader Upgrade

Cost: \$20M

Status: Construction

Location: Geraldton

Details: Upgrade to increase iron ore receival rate to 3,000 tonnes per hour, extend the port rail network to accommodate longer trains, align existing iron ore ship loading capacity with receival capacity and reduce reliance on road network to transport iron ore to the port.

Construction Start: Q3 2011

Construction Complete: Q2-3 2012

www.gpa.wa.gov.au

Brookfield Rail - Mid West Rail upgrade

Cost: \$500M

Status: Construction

Location: Morawa north to Mullewa and west through to Geraldton Port

Details: Brookfield Rail has commenced an upgrade that will significantly increase the capability of its existing rail infrastructure from Morawa through to the Geraldton Port. The Mid West Rail Upgrade (MWRU) supports the volume and export timings of Mid West miners. To support the increase in rail traffic, the MWRU will also involve substantial upgrades to signalling and communications, including centralised train control, open channel communications and active level crossing protection.

Construction Start: Commenced Q2 2011

Construction Complete: Q3 2012

www.brookfieldrail.com

Karara Mining Ltd - Karara spur line

Cost: \$150M+

Status: Construction

Location: Karara-Tilly Siding (Morawa)

Details: Construction of an 85km dual gauge sleeper rail line (haulage capacity of +30Mtpa) from Karara to Tilly Siding, which was 92% complete (as at 27/10/11). The existing rail line runs from Morawa to Geraldton will be upgraded to support Karara's production.

Construction Start: Commenced 2010

Construction Complete: Q1 2012

www.kararamining.com.au

QR National - Narngulu East Maintenance Depot

Cost: Part of a \$200M+ investment in the region

Status: Construction

Location: Narngulu East

Details: With the expected ramp up of Mid West iron ore activities, QR National is investing more than \$200M in Mid West operations. Part of this investment is an upgrade of the rail yard and facilities at the current Narngulu depot and the development of a new maintenance depot at Narngulu East, adjacent to the main rail line. The maintenance facility includes additional track, trip service facilities, locomotive service area, and warehouse. QR National has been operating in the Mid West as ARG. As of 1 July 2011, the ARG brand ceased to exist as all subsidiary brands were rebranded under the QR National banner.

Construction Start: Q3 2011

Construction Complete: Q2 2012

www.qrnational.com.au

Department of Environment and Conservation - Upgrade of the Loop / Z Bend Road and Recreation Sites, Kalbarri National Park

Cost: \$15M

Status: Committed

Location: Kalbarri National Park

Details: Construct sealed road access (approximately 33km) from the Kalbarri-Ajana Road to the Loop, Z Bend and West Loop recreation sites. Upgrade visitor infrastructure at these recreation sites including expansion of car parking and construction of new toilets, shade shelters, lookouts and walk trails. *This project has received funding from Royalties for Regions.*

Construction Start: Not stated

Construction Complete: 2013/14

www.dec.wa.gov.au

Main Roads WA - Goldfields Highway

Cost: \$100M

Status: Planning

Location: Meekatharra-Wiluna

Details: Reconstruct gravel pavement and seal 8m wide. It will be staged construction of priority sections depending on level of funding permits with a view to achieving two lane seal width completely from Meekatharra to Wiluna in the long term.

Construction Start: Undefined - subject to funding

Construction Complete: Undefined - subject to funding

www.mainroads.wa.gov.au

Main Roads WA

- Indian Ocean Drive - Greenhead to Brand Highway

Cost: Not stated

Status: Planning

Location: Greenhead to Cliff Head

Details: Realign substandard sections, reconstruct substandard curves and widen seal. Planning, design and some construction works have commenced under the Safer Roads Program.

Construction Start: Q1 2011

Construction Complete: Undefined - project only partly funded

www.mainroads.wa.gov.au

Main Roads WA - Midlands Road (Gunyidi to Irwin)

Cost: \$18M

Status: Planning

Location: Gunyidi to Irwin

Details: There are sections of the Midlands Road with seal width less than the 7m minimum for this classification of road. The total length of this narrow seal is 51km. The works to widen the seal will also include widening of existing culverts which are currently restricting the gravel shoulder width in many places. The total cost to widen the seal, culverts and associated land acquisition where required is estimated to be \$18M (including culvert works \$5M).

Construction Start: Undefined - project only partly funded

Construction Complete: Undefined - project only partly funded

www.mainroads.wa.gov.au

Main Roads WA - Mullewa Bypass

Cost: \$8.3M

Status: Planning

Location: Mullewa

Details: Main Roads has developed a concept design for the Mullewa Bypass. The road is contained mainly within the rail reserve and effects private land at the eastern tie in to the existing road alignment. This realignment would remove heavy vehicles from Mullewa town centre, however, the heavy vehicle traffic will have a major decrease once the OPR rail is constructed and iron ore cartage by road ceases. Main Roads will continue to monitor the growth of other heavy vehicle traffic to determine the timing for the need of a heavy vehicle bypass for Mullewa.

Construction Start: Undefined - planning phase

Construction Complete: Undefined - planning phase

www.mainroads.wa.gov.au

Main Roads WA

- Mullewa Wubin Road upgrade (Morawa-Mullewa)

Cost: \$100M

Status: Planning

Location: Morawa-Mullewa

Details: Widen and seal the Morawa to Mullewa section of the Mullewa Wubin Road. Main Roads WA priority is to widen the seal to a minimum total width of 7m. Only minor sections are being addressed as funding is made available. The current estimate to improve this section is \$100M and these works would require five years to deliver.

Construction Start: Undefined - subject to funding

Construction Complete: Undefined - subject to funding

www.mainroads.wa.gov.au

Main Roads WA - Mullewa Wubin Road upgrade (Perenjori-Morawa section)

Cost: \$21.7M

Status: Planning

Location: Perenjori-Mullewa

Details: Widen and seal the Perenjori to Morawa section of the Mullewa Wubin Road. MRWA priority is to widen the seal to a minimum total width of 7m. Funding to address minor sections has been received through a number of safety improvement programs, however Minister for Transport has announced \$2M for 2012/13 to undertake upgrades of some sections. The current estimate to improve this entire section is \$23M and the works would need to be delivered over three years. There is currently no major funding available in the Government's four year budget estimates.

Construction Start: Q4 2012

Construction Complete: Undefined - project only partly funded

www.mainroads.wa.gov.au

Utilities

APA Group - Mondarra Gas Storage Facility

Cost: \$140M

Status: Construction

Location: Dongara

Details: Expansion of the Mondarra Gas Storage facility from three to 12 petajoules and a 10-fold increase in its supply capacity to 150 terajoules per day, equivalent to 15 per cent of the State's total daily consumption. The project will use a depleted natural gas reservoir for storage of gas to supply the Western Australian market. Transmission of the gas to market will be via both the Dampier to Bunbury Natural Gas Pipeline and Parmelia pipelines.

Construction Start: 2010

Construction Complete: 2013

www.apa.com.au

Aviva Corporation Limited - Coolimba Power Project

Cost: \$1B

Status: Planning

Location: Eneabba

Details: Aviva has received conditional environmental approval for the 810MW Coolimba Power Project to create a power generation hub on private agricultural land just south of Eneabba and 15km from the Dampier to Bunbury Natural Gas Pipeline (DBNGP) and the planned 330kV Mid West Power line.

Construction Start: Not stated

Construction Complete: Not stated

www.avivacorp.com.au

Carbon Reduction Ventures

- Morawa Perenjori Solar Thermal Power project

Cost: \$16.5M

Status: Planning

Location: Morawa

Details: A 3MW concentrated solar thermal power station with energy storage. It will consist of 10 solar towers across a 4-5ha site, with annual power output equivalent to around 15,000 photovoltaic panels. The plant will be connected to the Perenjori-Morawa feeder to improve power reliability for edge of grid communities.

Construction Start: Q3 2012

Construction Complete: Q4 2014

www.carbonreduction.com.au/



Eneabba Gas - Centauri 1 Gas Fired Power Station

Cost: \$200M

Status: Planning

Location: Dongara

Details: Eneabba Gas Limited is planning to develop a 168MW syngas, gas fired Centauri 1 power station on Company-owned land 8km east of Dongara. Its Centauri 1 Power Station project now has all the necessary regulatory approvals for development, but the company is waiting on finance to proceed.

Construction Start: Not stated

Construction Complete: Not stated

www.eneabbagas.com.au

Horizon Power

- Murchison Radio Astronomy Power Plant

Cost: \$26.5M

Status: Committed

Location: Murchison

Details: Construction of a hybrid diesel / solar photovoltaic power plant with an innovative design that will cater for the strict radio-quiet conditions required for radio astronomy activities at the Murchison Radio-astronomy Observatory. If Australia's bid for the Square Kilometre Array is successful, the plant will support its early operations providing a peak load of 1.1MW.

This project has received funding from Royalties for Regions.

Construction Start: Q2 2012

Construction Complete: Q1 2013

www.horizonpower.com.au

Investec - Chapman Solar Farm

Cost: \$200M

Status: Planning

Location: Narra Tarra (Chapman Valley)

Details: This project would be Australia's largest utility scale solar farm. The development would comprise a 50MW Solar Power Station across a 315ha area and a 50MW diesel generation plant to provide supplementary power. The facility is expected to generate approx 100,000MW hours of electricity per year that would equate to a reduction in greenhouse gas emissions of approximately 110,000 tpa compared with coal-fired power generation.

Construction Start: 2013

Construction Complete: 2015

www.investec.com.au

Karara Mining Ltd

- Eneabba-Karara 330kV transmission line

Cost: \$120M

Status: Construction

Location: Eneabba - Karara

Details: All foundations completed with 200 of the 376 towers completed. Aerial stringing of power line commenced.

Construction Start: Commenced 2010

Construction Complete: Q1 2012

www.kararamining.com.au

Mid West Energy - Perenjori Solar Thermal Project

Cost: \$200M

Status: Planning

Location: Perenjori

Details: The 200MW solar thermal project will generate reliable, zero emission renewable energy from zero cost fuel for the region, as well as supplying power to Perth and the South West of Western Australia. The infrastructure will enable the connection of large scale solar energy projects to the South West Interconnected System (SWIS) electricity transmission network, taking advantage of extensions to the SWIS to service the Karara Magnetite Project. The two stage project will provide common use infrastructure to service multiple generators up to an initial capacity of 100MW (stage one), upgradable to 200MW in stage two.

Construction Start: 2013

Construction Complete: Q4 2013

www.midwestenergy.com.au/?page_id=165

Verve Energy - Greenough River Solar Farm

Cost: ~\$58M

Status: Construction

Location: Walkaway

Details: A Public Private Partnership between Verve Energy and GE Energy Financial Services, including \$10M of funding from Royalties for Regions, this project will be Australia's largest utility scale solar farm. The 10MW facility is expected to generate approximately 23GWh per annum and reduce greenhouse gas emissions by 20,000 tpa. An eventual expansion to 40MW has been proposed. ***This project has received funding from Royalties for Regions.***

Construction Start: Q4 2011

Construction Complete: Q3 2012

www.verveenergy.com.au



Verve Energy and Macquarie Capital Group - Mumbida Wind Farm

Cost: \$250M

Status: Construction

Location: Walkaway

Details: The Mumbida Wind Farm is a 55MW renewable energy project located approximately 40km southeast of Geraldton and consisting of 22 x 2.5MW General Electric 2.5xl wind turbines. The entire output from the wind farm will be purchased by the Water Corporation to offset the energy requirements of the Southern Seawater Desalination Plant.

Construction Start: Commenced Q3 2011

Construction Complete: Q4 2012

www.mumbidawindfarm.com.au

Western Power - Mid West Energy Project (Stage 1)

Cost: \$380M

Status: Planning

Location: Neerabup to Three Springs

Details: A 330kV transmission line to improve quality and reliability of electricity supply to the Mid West and enable the connection of new loads and generators in the region. The project has satisfied the ERA's New Facilities Investment Test (NFIT) with \$94M in net benefits, however the ERA's draft determination was that the project was 96% efficient. Western Power is confident that it will be able to address the remaining 4% and then the build time is 27 months.

Construction Start: 2012

Construction Complete: 2014 / 2015

www.westernpower.com.au

Water Corporation

- Allanooka-Wye Farm Duplication Part 1

Cost: \$6.2M

Status: Committed

Location: Dongara

Details: The Water Corporation will construct 13.8km of duplication pipeline along the existing main between the Allanooka Reservoir and Wye Farm Borefield to accommodate Dongara's peak demand. The new main will increase the capacity and transfer rate to the Dongara storage tanks. The main duplication is scheduled for completion in June 2013.

Construction Start: Q2 2011

Construction Complete: Q2 2013

www.watercorporation.com.au

Water Corporation - Brown Lane 3ML Tank

Cost: \$6.4M

Status: Committed

Location: White Peak, Geraldton

Details: The Water Corporation will commence works to construct a 3ML water storage tank at White Peak to provide emergency storage for Geraldton North and to improve pressure across developments at Drummond Cove and Glenfield areas. The tank and associated works are scheduled for completion in March 2012.

Construction Start: Q2 2011

Construction Complete: Q1 2012

www.watercorporation.com.au

Water Corporation

- Glass Street Pump Station #3 Upgrade, Kalbarri

Cost: \$5.2M

Status: Committed

Location: Kalbarri

Details: The Water Corporation will be upgrading Kalbarri Glass St Pump Station including the construction of a new 3km pressure main so that wastewater collected at the pump station can be transferred directly to the Kalbarri Wastewater Treatment Plant, relieving the load on the Grey Street Pump Station.

Construction Start: Deferred

Construction Complete: Deferred

www.watercorporation.com.au

Water Corporation

- Kalbarri Waste Water Treatment Plant Expansion

Cost: \$4.4M

Status: Committed

Location: Kalbarri

Details: The Water Corporation will be upgrading Kalbarri's wastewater treatment and disposal in stages to cater for the increase in wastewater flow due to growth. The upgrades will improve the quality of treated wastewater release to meet the increasingly strict standards for disposal to the golf course and environment. Construction of the upgrades to the Kalbarri Wastewater Treatment Plant is scheduled to start in November 2011 and to be complete by July 2012.

Construction Start: Q4 2011

Construction Complete: Q3 2012

www.watercorporation.com.au

Water Corporation

- Nanson and Hall Road Tanks, Geraldton

Cost: \$4.6M

Status: Committed

Location: Geraldton

Details: Storage tanks on Nanson and Hall Roads require increased transfer rate in order to meet peak customer demand. The Water Corporation will construct a 7km main pipeline from Nanson to Hall Road to speed up the flow rate between the tanks.

Construction Start: Q4 2011

Construction Complete: Q2 2012

www.watercorporation.com.au

Water Corporation

- Walkaway Pumping Station and Pipeline

Cost: \$15M

Status: Complete

Location: Walkaway

Details: The new pump station is complete and undergoing commissioning. One of the three pumps is expected to be available for the summer.

Construction Start: Commenced 2010

Construction Complete: Q4 2011

www.watercorporation.com.au





MID WEST DEVELOPMENT COMMISSION

...making the Mid West a preferred region in which to live, work, study and invest

The Mid West Development Commission is a State Government statutory authority and is one of nine regional development commissions in Western Australia. The Commission is responsible to the Honorable Brendon Grylls MLA, Minister for Regional Development and Lands.

The Commission's Board of Management comprises ten members representing local government, the community and the business sectors, as well as the Commission's CEO.

The Commission's role is to encourage and promote economic and social activity in the Mid West region in keeping with environmental and community values. The Commission achieves this by providing timely, innovative, professional services to businesses, industry and the community.

The Commission manages or supports a number of important economic and community based projects and has played, or continues to play, a lead or integral role in the establishment and development of a number of major projects; including the:

- SMART Mid West policy that has helped support the:
 - Murchison Radio-astronomy Observatory including Australian Square Kilometre Array Pathfinder project (ASKAP);
 - Australia's bid for the International SKA (site decision due in February 2012);
 - Establishment and growth of the Geraldton Universities Centre; and
 - Establishment of the Separation Point Marine Precinct.
- Mid West Investment Plan, which has received \$220 million over four years for implementation;
- Mid West Indigenous Arts Industry Strategy, which initiated the development of the Wirnda Barna Art Centre in Mount Magnet;
- Development of a Mid West Digital Economy Strategy in partnership with the City of Greater Geraldton and Department of Commerce, to maximise benefits from the NBN;
- Bidi Bidi early childhood / parenting centre in Mount Magnet;
- Shire of Morawa's development as one of WA's nine regional SuperTowns;
- Establishment of a heavy boat lifting facility at the Geraldton fishing boat harbour;
- Geraldton foreshore redevelopment and CBD revitalisation;
- Development of the Gascoyne Murchison Outback Pathways;
- Draft Mid West Regional Planning and Infrastructure Framework;
- Redevelopment of the Batavia Coast Marina (stages 1 and 2);
- Aquaculture and finfish industry development;
- Planning for Oakajee deepwater port, industrial estate and Murchison rail;
- Development of the Mid West Energy Plan in partnership with the Office of Energy; and
- Planning for the needs and impacts of major resources development, including the provision of Indigenous employment and training opportunities

All these projects and others enable the Commission to achieve its vision of having the Mid West region recognised as a preferred region in which to live, work, study and invest.



Government Projects

PROJECT STATUS

Planning and Approvals

The project has progressed significantly from the conceptual stage but it is not committed to proceed

Construction

The project is under construction

Complete

The project has reached practical completion

Education

Consortium of nine schools in partnership with Durack Institute of Technology - Geraldton Regional Trade Training Centre

Cost: \$8.8M

Status: Construction

Location: Geraldton

Details: The Trade Training Centre allows students to begin their pathway into trade level qualifications whilst still at school in the areas of electro-technology, metals engineering and laboratory techniques. Construction underway, with transportable buildings relocated and concreting underway.

Construction Start: Q3 2011

Construction Completion: Q3 2012

www.det.wa.gov.au

Department of Education - Wandina Primary School

Cost: \$8M

Status: Committed

Location: Geraldton

Details: A staged primary school development on a 3.5ha site on Britannia Parade in Wandina (southern suburbs of Geraldton). In its first year of operation (2014) the school will cater for students from kindergarten to year 3, with year 4-6 classes rolled out in 2015 and further year groups progressively in later years.

Construction Start: 2013

Construction Completion: 2014

www.det.wa.gov.au

Department of Education & Training - Dongara District High School Upgrade

Cost: \$30M

Status: Construction

Location: Dongara

Details: Staged upgrade of primary, secondary and specialist facilities. Stage 1 completed and handed over. Work proceeding to schedule.

Construction Start: Q1 2011 (Stage 2-3)

Construction Completion: Buildings Q4 2011; refurbishments and landscaping 2012

www.det.wa.gov.au

Department of Education & Training - Geraldton Senior College Upgrade Stage 2

Cost: \$5M

Status: Construction

Location: Geraldton

Details: Improvements to science and visual arts facilities.

Construction Start: 2011

Construction Completion: Visual arts facilities complete; science facilities 2011/12 (dependent on existing teaching program)

www.det.wa.gov.au

Durack Institute of Technology - Centre for Environmental Management and Sustainable Technologies

Cost: \$10-11M

Status: Planning

Location: Adjacent to Batavia Coast Maritime Institute, Geraldton

Details: State of the art demonstration, interpretive and training centre to promote the use of sustainable technologies and train the workforce to develop and install such technologies.

Construction Start: Q4 2012

Construction Completion: Q2 2014

www.durack.edu.au

Durack Institute of Technology - Centre for Health, Community Services and Aboriginal Culture and Learning

Cost: \$15-17M

Status: Planning - Recommended by Department of Training and Workforce Development

Location: Fitzgerald Street Campus, Geraldton

Details: Two staged development to construct a state of the art training facility for occupations such as nursing, childcare, aged care and generalist subjects such as adult education, literacy and numeracy and specific workforce development for Aboriginal people.

Construction Start: Q3 2012

Construction Completion: Q2 2014 (Stage 1); Q2 2015 (Stage 2)

www.durack.edu.au

Durack Institute of Technology - Centre for Resources Sector Workforce Development (minerals & energy)

Cost: \$12-14M

Status: Planning - Recommended by Department of Training and Workforce Development

Location: Adjacent to Airport Technology Park, Geraldton

Details: Training facility to service the resources sector across occupations such as civil construction, heavy duty and fixed plant repair and maintenance, OSH and related "high risk tickets". Centre will also act as a hub for related Durack facilities at Carnarvon, Exmouth, Wiluna and possibly Morawa.

Construction Start: Q3 2012

Construction Completion: Q3 2013

www.durack.edu.au

Shire of Morawa - Morawa Industry Training Centre

Cost: \$8M

Status: Planning

Location: Morawa

Details: Construction of a training facility in Morawa to support industry (particularly resources and agriculture sectors) and community training needs in the North Midlands. Developed in partnership with Durack Institute of Technology the training centre will support industry and business growth and support the establishment of Morawa as one of WA's nine regional SuperTowns. The facility is proposed to include a mixture of workshops, laboratories, classrooms and seminar rooms for remote delivery.

Construction Start: Q2 2012

Construction Completion: Q4 2012

www.morawa.wa.gov.au

Health

Department of Health / WA Country Health Service (Midwest) - Geraldton Health Campus redevelopment

Cost: \$107M

Status: Planning - Pending finance

Location: Geraldton

Details: Proposed extension and redevelopment of Geraldton Health Campus including an in patient mental health unit and cancer centre, and expansion of the restorative ward and emergency department.

Construction Start: Not stated

Construction Completion: Not stated

www.health.wa.gov.au



Ngangganawili Aboriginal Health Service - Wiluna Aboriginal Medical Centre

Cost: \$13M

Status: Planning

Location: Wiluna

Details: The comprehensive new clinic will replace the existing clinic in Thompson St, Wiluna. The facility will include two treatment rooms and an emergency centre, a dental clinic and sterilization room, occupational therapy workshop and separate rooms for consultations / examinations, minor procedures, dialysis, x-ray, pathology, sexual health (plus two consultation rooms), audio health, substance abuse counseling, child health, podiatry and physiotherapy, wellness and associated waiting and administration areas.

Construction Start: 2012

Construction Completion: 2013

www.nahs.org.au

Land Development

Department of Housing

- Beachlands Development, Crowther St & Eliot St

Cost: \$8.3M

Status: Construction

Location: Geraldton

Details: Subdivision works and sewer upgrade to create two new housing precincts in the suburb of Beachlands (Crowther St (Stage 1) and Eliot St (Stage 2)) providing a mix of affordable housing lots including grouped housing lots and public open space. Lots in Crowther St (Stage 1) are due to be released in Q1 2012 and the Eliot St development will go out to tender for civil works in Q1 2012.

Construction Start: Commenced 2010

Construction Completion: Q3 2012 (Eliot St - Stage 2)

www.housing.wa.gov.au

LandCorp & Mid West Development Commission - Batavia Coast Marina - Stage 2

Cost: \$15-20M

Status: Planning

Location: Geraldton

Details: The proposed redevelopment of 6.14ha of vacant government land in Geraldton CBD's marina precinct.

Construction Start: Not stated

Construction Completion: Not stated

www.landcorp.com.au

LandCorp & PRM - Bluff Point Project

Cost: Not stated

Status: Planning

Location: Geraldton

Details: Subdivision of 8.4ha site spanning Bluff Point and Beresford to deliver around 86 single lots and two grouped housing sites for a total of 100 new homes.

Construction Start: Q3 2012

Construction Completion: Q2 2013

www.landcorp.com.au

Local Government Infrastructure

City of Greater Geraldton - Beresford Foreshore Coastal Protection and Enhancement

Cost: \$10M

Status: Planning - Detailed designs underway

Location: Geraldton

Details: The Beresford foreshore is a section of coastline with a sediment deficit, which will continue for the foreseeable future. There is a need to undertake appropriate coastal protection measures that will protect the most vulnerable sections of the foreshore, and provide for efficient ongoing management of the sediment deficit. An opportunity exists at the same time to enhance the linear coastal amenity space.

Construction Start: Q1 2014

Construction Completion: 2015

www.cgg.wa.gov.au

City of Greater Geraldton - Eadon-Clarke Sporting Reserve (Stage 1)

Cost: \$3.4M

Status: Construction

Location: Geraldton

Details: Redevelopment of existing Eadon-Clarke Sporting Reserve to provide improved multi purpose grassed ovals with lighting and amenities for several outdoor sports. Project involves significant water infrastructure upgrades, with clubrooms proposed for a future stage. *This project has received funding from Royalties for Regions.*

Construction Start: Commenced Q3 2011

Construction Completion: Q2 2012

www.cgg.wa.gov.au

City of Greater Geraldton - Eastern Breakwater Precinct

Cost: \$4.25M

Status: Planning

Location: Geraldton

Details: An extension of the Geraldton Foreshore that will include parklands, boardwalks and jetties in a previously isolated semi industrial site adjacent to the Geraldton Port. *This project has received funding from Royalties for Regions.*

Construction Start: Q2 2012

Construction Completion: Q2 2013

www.cgg.wa.gov.au

City of Greater Geraldton - Regional & Services Works Depot Relocation

Cost: \$8M

Status: Planning - Detailed design underway (leading to construction)

Location: Geraldton

Details: The amalgamation of the City of Geraldton and the Shire of Greenough resulted in the need to upgrade and relocate the City's Works Depot. The facility will be constructed over the next three years at a new site at the Regional Airport Technology Park.

Construction Start: Q1 2012

Construction Completion: 2014

www.cgg.wa.gov.au

City of Greater Geraldton

- Stormwater Harvesting and Efficiency Project

Cost: \$6M

Status: Planning

Location: Geraldton

Details: A new stormwater harvesting and reuse project in Geraldton, which will save more than 745 million litres of drinking water each year by 2014. The project includes a retrofit of existing drainage systems in the CBD, overhaul of several large non-performing sumps, stormwater harvesting and other water efficiency measures.

Construction Start: Q3 2012

Construction Completion: Q4 2013

www.cgg.wa.gov.au

Murchison Regional Vermin Council - Dog Proofing of Number 1 Vermin Fence

Cost: \$3M

Status: Construction

Location: Paynes Find - Meekatharra -Yalgoo

Details: A collaboration between the Murchison Regional Vermin Council (which includes the Shires of Meekatharra, Cue, Yalgoo, Sandstone and Mount Magnet) and the Shire of Wiluna, to upgrade the existing vermin fence to a dog proof standard. *This project has received funding from Royalties for Regions.*

Construction Start: Q4 2011

Construction Completion: 2012

www.mtmagnet.wa.gov.au/default.asp?documentid=78

Shire of Morawa - Sports Ground Redevelopment

Cost: \$3M

Status: Planning

Location: Morawa

Details: Redevelopment of clubrooms at the Morawa Sports Ground, including function area, change rooms, kitchen and spectator viewing area.

Construction Start: 2012

Construction Completion: 2013

www.morawa.wa.gov.au

Shire of Northampton - Northampton Community Centre

Cost: \$2.5M

Status: Construction

Location: Northampton

Details: Upgrade of existing club facilities at the Northampton Community Centre including function area, change rooms, gymnasium, spectator viewing area and improved access. *This project has received funding from Royalties for Regions.*

Construction Start: Q1 2011

Construction Completion: Q4 2011

www.northampton.wa.gov.au

Radio Astronomy / Research

CSIRO - Australian Square Kilometre Array Pathfinder (ASKAP)

Cost: \$152M

Status: Construction

Location: Murchison

Details: CSIRO's ASKAP Project is currently under construction at the Murchison Radio-astronomy Observatory (MRO) site in the Shire of Murchison. Once complete, it will comprise of 36 antennas, each with a diameter of 12m that will work together as a single instrument. This will be a world-class telescope in its own right, as well as an important technology demonstrator for the international SKA project. Eleven antennas were installed as at October 2011.

Construction Start: Commenced 2010

Construction Completion: 2013

www.atnf.csiro.au/projects/askap

CSIRO - International Square Kilometre Array (SKA) Radio Telescope

Cost: \$2.5B

Status: Planning

Location: Murchison

Details: The international SKA project involves 19 countries working together to build a telescope with a radio wave collecting area of one square kilometre and discovery potential 10,000 times greater than existing equipment. The Murchison Radio-astronomy Observatory is one of two international sites (along with one in the Northern Cape Province of South Africa) short listed for the construction of this telescope. The preferred site is expected to be announced in February 2012.

Construction Start: 2016

Construction Completion: 2023

www.ska.gov.au

CSIRO - Murchison Radio-astronomy Observatory Support Facility (MSF)

Cost: \$4.5M

Status: Planning

Location: Geraldton

Details: Located at the Geraldton Universities Centre, this support facility for the MRO will contain a telescope control room, computer room, monitoring and processing equipment, electrical and mechanical workshops, office and meeting space and amenities. The building will also include an education / outreach centre.

Construction Start: Q4 2011

Construction Completion: Q3 2012

www.atnf.csiro.au/projects/askap/site.html

Curtin University - Murchison Widefield Array (MWA)

Cost: \$30M

Status: Construction

Location: Murchison

Details: The MWA is an international initiative involving institutions in Australia, United States, India and New Zealand. The Murchison Widefield Array (MWA) is a new type of radio telescope that has no moving parts and is dependent on high performance computing to create real time widefield images of the radio sky. Once completed it will observe and discover low frequency radio phenomena that have never been seen before. The MWA prototype is already being constructed (around 25% of the size of the full array, consisting of 32 tiles) with initial results already available. Construction of the full array (with 128 tiles each comprising 16 dipole antennas) is planned for end 2012.

Construction Start: Q1 2012

Construction Completion: Q4 2012

www.mwatelescope.org



Non Government Projects

PROJECT STATUS

Planning and Approvals

Construction Complete

The project has progressed significantly from the conceptual stage but it is not committed to proceed
The project is under construction
The project has reached practical completion

Aged Care

Thungarra Aged Care Facility - Global Care Group

Cost: \$35M

Status: Planning and Approvals

Location: Dongara

Details: 26 bed aged care facility adjacent to the existing medical centre. A Development Application has been submitted to the Shire of Irwin and an application to the Department of Health and Ageing for 28 bed licences has also been submitted - approvals for both are expected this year.

Construction Start: H1 2012

Construction Completion: Q1 2013 (Stage 1) / Stage 2 to follow

www.globalcareinc.com.au/thungarra-mews

Uniting Church Homes - Hillcrest Aged Care Facility

Cost: \$3.8M

Status: Planning and Approvals

Location: Geraldton

Details: Construction of an additional high care wing of 20 beds, complementing the existing (recently redeveloped) aged care facility.

Construction Start: Q1 2012

Construction Completion: Q4 2012

www.uchwa.com

Commercial

Batavia Coast Marina Pty Ltd and Cedar Woods Properties Ltd (proposed Proposed JV)

- Commercial / Retail / North Shore Apartments

Project Type: Mixed Use Development

Cost: \$24M

Status: Planning and Approvals

Location: Geraldton

Details: A waterfront development at the Batavia Coast Marina including corporate and traveller accommodation and 424m² of boardwalk retail and commercial space.

Construction Start: Q1 2011

Construction Completion: Q1 2013

www.bataviamarina.com.au

Centro Properties Group - Centro Stirlings

Cost: \$5M

Status: Planning and Approvals

Location: Geraldton

Details: Redevelopment and 2,000m² extension of the existing Stirlings shopping centre and Chapman Way Arcade to create a modern retail precinct.

Construction Start: Q1 2012

Construction Completion: Q4 2012

www.centro.com.au

Humfrey Land Developments - Seacrest Shopping Centre

Cost: \$12M

Status: Planning and Approvals

Location: Geraldton

Details: Retail (shopping centre) development in Wandina.

Construction Start: Q1 2012

Construction Completion: Q4 2012

www.hld.com.au

Kareelya Property Group - Foreshore Business Centre

Cost: \$9.1M

Status: Construction

Location: Geraldton

Details: Three storey energy efficient business complex on Foreshore Drive (Batavia Coast Marina).

Construction Start: Commenced 2010

Construction Completion: Q2 2011

www.bataviamarina.com.au/foreshore-business-centre

Community Service

Drug ARM (WA) Inc - Residential Rehabilitation Facility

Cost: \$3M

Status: Planning and Approvals

Location: Geraldton

Details: The proposed "Therapeutic Community" residential rehabilitation facility would support larger client numbers and offer a range of new services. The 'retreat' style facility on Geraldton's outskirts would offer services that promote reconnection with families, reintegration into the labour market, reduction in reoffending, improvements in mental and physical health and improved social functioning.

Construction Start: Q1 2012 (subject to funding)

Construction Completion: Q3 2012

www.drugarmwa.org.au

Sun City Christian Centre - Blencowe Road Development Project

Cost: \$3.8M

Status: Planning and Approvals

Location: Geraldton

Details: Relocation and expansion of facilities to accommodate existing activities and predicted future growth. Facilities will include fun city children's area; wildfire youth auditorium; & Sun City Care Inc. welfare facilities.

Construction Start: Q4 2011

Construction Completion: Q1 2013

www.suncitychristiancentre.com.au

Education

Combined Universities Centre for Rural Health (CUCRH) - Centre for Rural and Remote Health Education

Cost: \$2.8M

Status: Planning and Approvals

Location: Geraldton

Details: An extension of the CUCRH facility to expand services and improve education delivery technology across multiple regions.

Construction Start: Q1 2012

Construction Completion: Q3 2012

www.cucrh.uwa.edu.au

Geraldton Universities Centre - Media Research and Training Institute

Cost: \$3-5M

Status: Planning and Approvals

Location: Geraldton Universities Centre

Details: Establishment of WA's first regional media training institute - a unique collaboration between the private sector, local and state government. The institute will take students from all over WA, with only limited travel to Geraldton required during the full three year Bachelor Course. The Institute has also secured an agreement with Australia's premier media university, Charles Sturt University in NSW, to run and administer the course.

Construction Start: 2014 (specialist studios)

Construction Completion: Not stated

www.guc.edu.au

Geraldton Universities Centre - Stage 2 building project

Cost: \$3M

Status: Planning and Approvals

Location: Geraldton

Details: Construction of extra classrooms and shared spaces to not only accommodate increased face-to-face delivery of existing and new course enrolments, but also to enable GUC and the Mid West take advantage of the high speed IT services that will be available through Aarnet in association with NBN, ASKAP and CSIRO projects situated on the GUC site. Conservative projections indicate that GUC will reach peak room usage capacity by 2014.

Construction Start: Q1 2013

Construction Completion: Q1 2014 in time for February commencement of academic year

www.guc.edu.au

Mixed Use Development

Humfrey Land Developments - Lot 601 Marine Terrace

Project Type: Mixed Use Development

Cost: \$100M

Status: Planning and Approvals - Designs underway; Development Application submitted

Location: Geraldton

Details: Construction of an eight storey mixed use centre to include retail, hotel, commercial and residential components.

Construction Start: Not stated (at design stage)

Construction Completion: Not stated

www.hld.com.au

Residential Land Development

Arcadia Group - Arcadia Waters Port Denison

Cost: \$6.5M - Stage 1 (\$2.5M) and Stage 2 (\$4M) combined

Status: Construction - Stage completion

Location: Port Denison

Details: A 49 villa retirement village for over 55s. Stage 1 (9 villas) was completed in March 2011. Stage 2, comprising an additional 9-10 villas and a Community Centre, will commence pending sales of stage 1.

Construction Start: Commenced 2009

Construction Completion: Q1 2011 (Stage 1) / Stage 2 dependent on sales

www.arcadiawaters.com.au

Batavia Coast Marina Pty Ltd and Cedar Woods Properties Ltd (proposed Proposed JV) - South Shore Residential Apartments

Cost: \$33M

Status: Planning and Approvals

Location: Geraldton

Details: A five level waterfront development at the Batavia Coast Marina, comprising 25 residential apartments.

Construction Start: Q1 2011

Construction Completion: Q1 2013

www.bataviamarina.com.au

Humfrey Land Developments - Seacrest Estate (Stages 15-17)

Cost: Not stated

Status: Construction

Location: Geraldton

Details: 1,260 lots with space allocated for a public primary school and private school, retirement village, public open space and a retail area. Stages 15, 16 and 17 (312 lots in total) will be completed by 2014.

Construction Start: Staged development commenced in 2000

Construction Completion: 2014

www.hld.com.au

Tourism Developments

PROJECT STATUS

Planning and Approvals

The project has progressed significantly from the conceptual stage but it is not committed to proceed

Construction

The project is under construction

Complete

The project has reached practical completion

Batavia Coast Marina Pty Ltd - Batavia Coast Marina Hotel, Tavern & Apartments

Cost: \$43M

Status: Planning and Approvals

Location: Geraldton

Description: 4.5 star 74 room hotel development including a tavern and 11 residential penthouses.

Construction Start: Q3 2012

Construction Finish: Q2 2014

www.bataviamarina.com.au

Humfrey Land Developments - Mahomets Caravan Park & Resort

Cost: \$50M

Status: Planning and Approvals - Government management order being progressed.

Location: Geraldton

Description: Construction of a new caravan park and adjoining 4.5 star resort.

Construction Start: Q1 2012

Construction Finish: Not stated

www.hld.com.au

Batavia Village Pty Ltd - Batavia City Hotel

Cost: \$3M

Status: Construction

Location: Geraldton

Description: Refurbishment of 1ha site to include 80 x 4 star rooms with restaurant, function and convention facilities.

Construction Start: Q4 2011

Construction Finish: Q2 2013

Humfrey Land Developments - Abrolhos Resort

Cost: \$32M

Status: Planning and Approvals - Coastal setback and environmental policy issues being negotiated

Location: East Wallabi Island

Description: 4.5 star tourist resort with accommodation for 60 guests and 10 staff on East Wallabi Island - part of the Houtman Abrolhos Islands 60km west of Geraldton.

Construction Start: Not stated

Construction Finish: Not stated

www.hld.com.au

Humfrey Land Developments - Leeman Caravan Park & Resort

Cost: \$44M

Status: Planning and Approvals - Caravan park plans being finalised

Location: Leeman

Description: Relocation of existing caravan park to adjacent land and redevelopment of existing caravan park site to a 200 bedroom 4.5 star resort.

Construction Start: Q1 2012

Construction Finish: 2015

www.hld.com.au





The Commission's **Mid West Investment Plan (MWIP)** outlines the Mid West's key infrastructure priorities. Its development involved extensive consultation and planning with local governments and Mid West based agencies, industries, community groups and the private sector. The MWIP promotes coordinated development of social and economic investment in the region that captures maximum opportunity from anticipated regional growth.

Collectively valued at more than \$3 billion (excluding Oakajee and SKA related projects) the MWIP includes more than 300 priority infrastructure projects in the Mid West. The MWIP seeks to drive public and private investment in economic infrastructure (railways, roads, ports, communications, electricity and utilities) and social and community infrastructure (health, education, town revitalisation and recreation facilities) across the three Mid West sub-regions (Batavia Coast, Murchison and North Midlands).

The highest priority projects, or 'Flagships', are those identified as being essential to the region and needing to be substantially progressed or completed within four years. The Commission has secured \$220 million in Royalties for Regions funding to support the development of these 'Flagship' projects over a four year period and a further \$3 million over the same period to support its implementation.

The Commission has \$30 million to allocate in 2011/12 and proponents of 'Flagship' projects are now refining plans and submitting projects for funding consideration. A MWIP Steering Group assesses projects and provides them to the Minister for endorsement via Cabinet.

The MWIP takes its strategic context from the **Mid West Regional Planning and Infrastructure Framework (MWRPIF)**, which promotes planning and development on a sub-regional basis. Led by the Western Australian Planning Commission, the MWRPIF is being developed by the Mid West Regional Planning Committee and focuses on establishing a strategic regional planning framework, with emphasis on land use planning in the Mid West. Like the MWIP, the MWRPIF strongly supports planning and coordination across government.

The Draft MWRPIF was released for public comment in November - www.planning.wa.gov.au/6137.asp.

The Commission continues to advocate for coordinated planning and development in the Mid West based on different growth scenarios. This will ensure a proactive community and business responses to major projects including the proposed development of Oakajee and its associated infrastructure and mining operations, as well as other major projects including the ASKAP and SKA. Concurrently, the Commission is also working with key agencies to progress key sector specific regional plans including the:

- Mid West Energy Plan;
- Mid West Water Supply Plan;
- Mid West Digital Economy Strategy;
- Mid West Workforce Development Plan;
- North Midlands Economic Development Strategy; and
- Sustainable Future City Region project.

The Commission also continues to work with local governments to identify and progress infrastructure priorities that could be funded from the Royalties for Regions **Country Local Government Fund (CLGF)**. The increasing focus of CLGF is collaborative projects that benefit multiple communities and the Commission facilitates workshops with local government groupings to identify and progress priority sub-regional projects. This process also informs the MWIP implementation process.



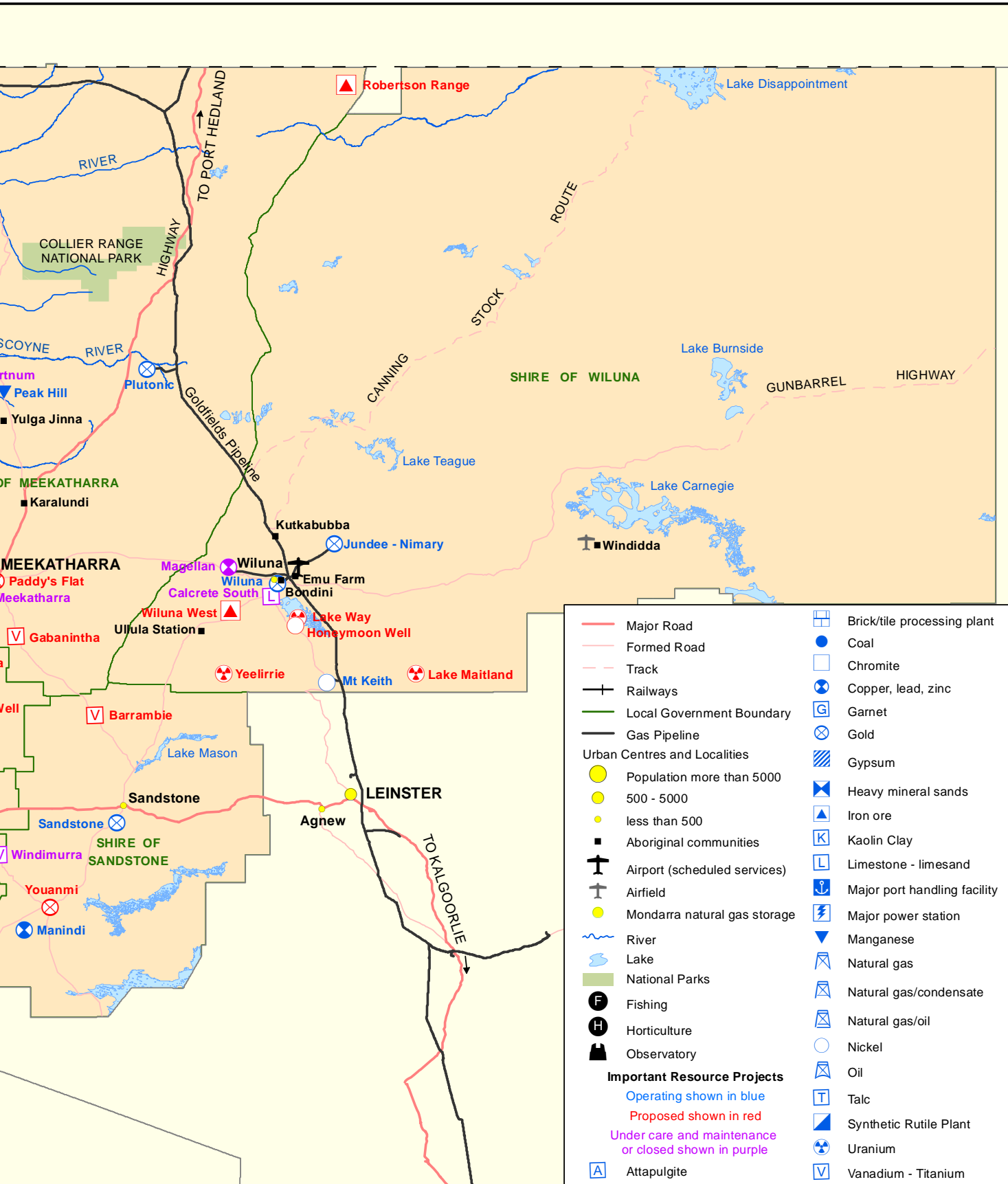
MID WEST REGION

KEY FEATURES



Government of Western Australia
 Department of Regional Development and Lands





Government of Western Australia
Department of Water

This map is a product of the Department of Water, Spatial Services and was printed on 16/11/2011.

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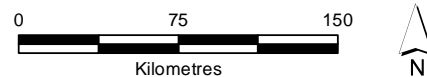
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Horizontal Datum: Geocentric Datum of Australia 94
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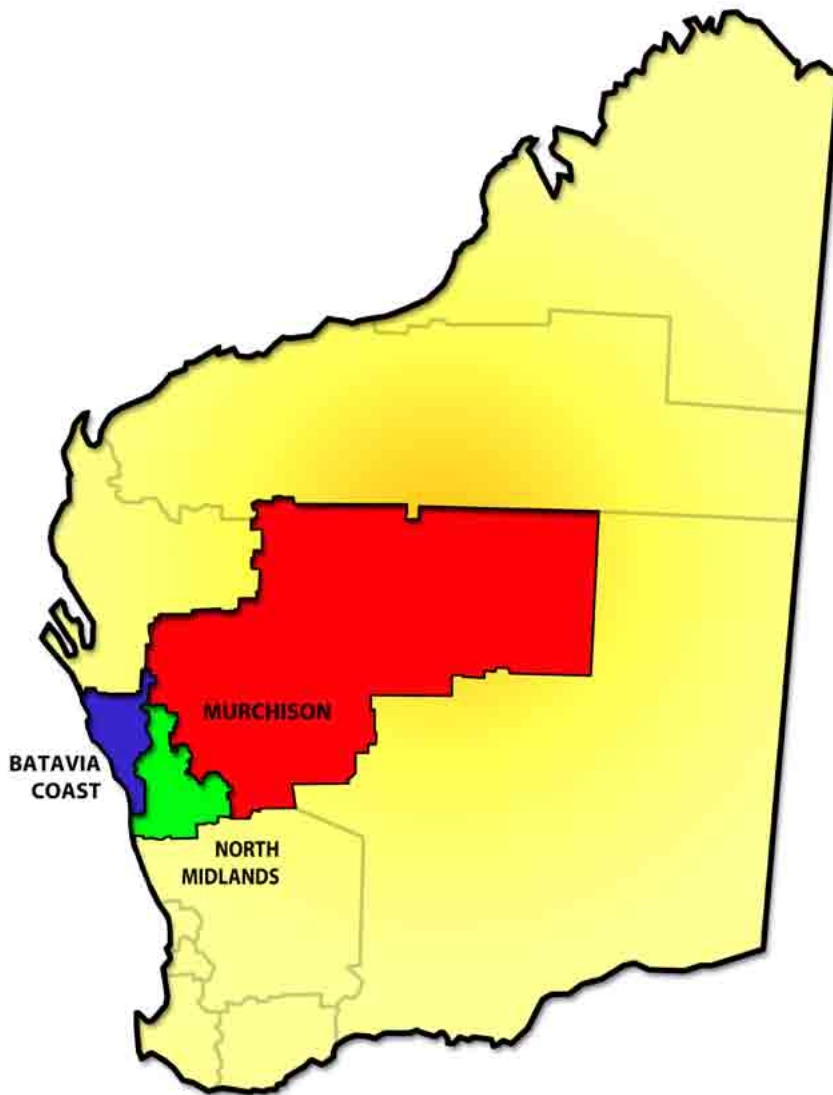
Project Information

Client: Regional Development and Lands
Map Author: Caroline Kiely
Filename: A4_Perspective_Midwest_2011_v1.mxd
Compilation date: 16/11/2011
Edition: 1



DATA DICTIONARY		
THEME	SOURCE	DATE
Cultural	Landgate	March 2009
Transport	Landgate / DMP	September 2008
Hydrography	Department of Water	August 2009
Tenure	Department of Conservation	June 2008
LGA Boundaries	Landgate	December 2006
Important Resource Projects	DMP - Modified from MINEDEX Database	February 2009 January 2010

THE MID WEST REGION



The Mid West covers around 470,000km² (including offshore islands) or nearly one-fifth of the area of Western Australia. The region extends along the west coast from Greenhead to Kalbarri and more than 800km east into the mineral rich hinterland. The current population is around 55,000.

Mining has long been a major contributor to the Mid West's economy, with significant current interest in the region's ample mineral resources (particularly iron ore). While the resources sector is significant, the region's economy also has valuable agriculture, fishing and tourism industries. Diversification and value adding across all sectors, combined with a strengthening of the region's strategic infrastructure and further development of its tourism potential, will ensure the Mid West's continued growth.

The region consists of 17 local government authorities, loosely categorised into three subregions as depicted on the adjacent map.

- The Batavia Coast (blue) includes the City of Greater Geraldton and the Shires of Chapman Valley, Irwin and Northampton; comprising 85% of the Mid West population.
- The North Midlands (green) includes the Shires of Carnamah, Coorow, Mingenew, Morawa, Perenjori and Three Springs.
- The Murchison (red) includes the Shires of Cue, Meekatharra, Mount Magnet, Murchison, Sandstone, Wiluna and Yalgoo.

The amalgamated City of Greater Geraldton is the region's major commercial, administrative and service centre with an estimated resident population of 39,368 (ABS, June 2010; combines the former City of Geraldton-Greenough and Shire of Mullewa).

The region's estimated Gross Regional Product was around \$6.1 billion for the year 2010-11, representing around 2.8% of the State Gross Product.

THE MID WEST DEVELOPMENT COMMISSION

Building the Mid West by:

- Facilitating investment
- Promoting infrastructure development
- Facilitating opportunities for local business
- Developing export opportunities
- Improving the level of, and access to, government services
- Providing information and advice
- Supporting community development
- Promoting Aboriginal economic development
- Encouraging natural resource management
- Developing SMART industry and infrastructure



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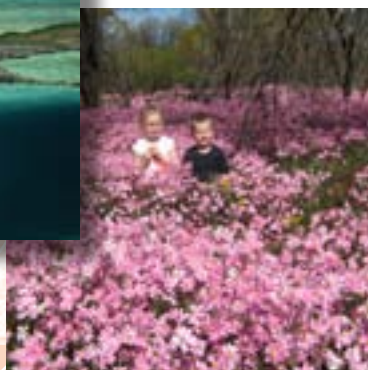
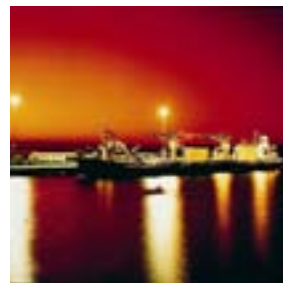
MID WEST

Investment Plan 2011 – 2021

Mid West Vision

“Making the Mid West a better place to live, work, study and invest!”

Prepared by the Mid West Development Commission in consultation with Federal, State and Local Government agencies and non government organisations.



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CHAIRMAN'S FOREWORD

The impetus for the development of the Mid West Investment Plan (MWIP) was the Leaving a Legacy Workshop held in Perenjori in April 2010. A key message from the Minister for Regional Development, Hon Brendon Grylls MLA, to the participants was to undertake integrated planning that clearly outlined the region's strategic priorities.

It was a clear call for the region's strategic priorities to be articulated via a "master plan" as the Mid West region enters a period of unprecedented growth and opportunity. By engaging the community and government in local decision making, the resultant MWIP summarises the community needs and can be used to leverage funding and support applications through Federal and State Government programs.

The March 2011 edition of Mid West Development Commission's (MWDC) Mid West Major Projects Summary highlights that more than \$19 billion worth of projects are being planned or proposed for the Mid West over the next 5-7 years. This creates intense challenges that must be addressed as well as wonderful opportunities to be captured. These projects will bring with them considerable infrastructure development, much funded by the private sector, which must be supported by appropriate public investment.

In particular, the projects will assist to significantly boost the population of the Mid West with one study indicating that the population of the Mid West has the potential to grow from its current 55,000 to around 80,000 by 2021.

The development of the MWIP, in concert with the preparation of the Western Australian Planning Commission's (WAPC) Mid West Regional Planning and Infrastructure Framework (MWRPIF), creates an integrated process that works across portfolios and/or agencies to overcome "silo" planning. The MWRPIF is being prepared by the Department of Planning (DOP) in consultation with the WAPC's Mid West Regional Planning Committee (MWRPC) and Infrastructure Coordinating Committee (ICC). It is important to note that the MWIP takes much of its strategic context from the MWRPIF to ensure investment, both public and private (where appropriate), is targeted to deliver the best and most sustainable outcomes for Mid West communities and in alignment with the MWRPIF.

The MWIP has significant local government, Mid West based agency and industry support. Developed on the basis of the Mid West's three distinct sub regions, the goals of the MWIP are to:

1. Revitalise decayed social and community infrastructure in a number of communities/sub regions;

2. Enhance the liveability of communities - in particular those which, with the right public and private investment, can capture benefits from nearby major projects. These benefits include employment opportunities, attraction and retention of at least a portion of major projects' workforces, and business expansion and attraction; and

3. Progress aspirational projects (renewable energy, SMART projects), which communities and MWDC believe will help enhance and diversify the region's economic base.

The full MWIP contains 300+ projects collectively valued in excess of \$3 billion (excluding Oakajee and SKA related projects). However, the first stage in implementation will focus on the delivery of "Flagship" projects, moving onto other projects identified as High Priorities in the future.

This document reflects the processes taken to identify the regional needs and the local decision making involved in setting priorities. One of the major challenges in developing the MWIP was the complexity of this large, diverse region and dealing with how the regional needs and priorities will change over time. Therefore, this version of the MWIP reflects the needs of 2010/11 across the Mid West's three sub regions, taking into consideration predictions of population growth and economic development in the future. However, to maximise the benefit to the region, this plan must form the beginning of a 'living' process, annually updated and reviewed to ensure that the Mid West remains a great place to live, work, study and invest.

In closing, a document such as this can only be as strong as the level of commitment and input from the regional stakeholders. It is clear that the Mid West community has made a strong contribution to the consultation process in the development of the MWIP. I would like to specifically note the support provided by the Department of Regional Development and Lands throughout the development of this plan and thank all other people and agencies involved.



Hon. Murray Criddle
Chair Mid West Development Commission Board

Figure 1: the Mid West Region



INTRODUCTION

The Mid West and the Western Australian Government are ideally placed to plan for sustainable futures having gained from the experiences from previous phases of economic growth, particularly in the Pilbara and Goldfields. Recognising the negative impact in other regions from inadequate provision of economic, community and social support infrastructure is a significant incentive to think and plan for balanced, long term outcomes.

The benefits of timely and strategic public investment in the Mid West will have impacts that extend outside of the region, even providing nationally significant outcomes including:

- optimising returns for the Mid West's export industries with a well developed and efficient infrastructure framework;
- creating diversity of industry which lays a platform for sustainable growth; and
- reflecting relevant, proactive planning approaches that meet local community needs and aspirations.

MWDC intends to use the MWIP in conjunction with the MWRPIF to secure and guide public and private investment into the Mid West region.



OVERVIEW OF MID WEST INVESTMENT PLAN

Together with the MWRPIF, the MWIP is designed to provide a strategic direction for the Mid West region over the next ten years to 2021. The MWIP outlines the community priorities in the Mid West as a set of projects designed to have an impact across the region. In the development of this document, the intent has been to characterise the region and its component sub regions and outline the specific objectives that MWDC considers important in delivering its vision across the region. Through the process, the MWDC has taken the following into consideration:

- Recognise that a 'balanced' region requires investment in both the economic and social/ community support infrastructure to support the aspirational goals of the community;
- Engage the wider community and all tiers of government to identify existing and emerging infrastructure pressures throughout the Mid West and Western Australia over the next 10 to 20 years;
- Collate these infrastructure requirements and prioritise according to relevant criteria;
- Work with the public and private sectors to identify investment opportunities and form working partnerships to deliver projects to the region in a timely fashion;
- Create a greater level of certainty about the priorities and timing of major infrastructure development;
- Provide a framework for identification of infrastructure needs and a process for ensuring new projects are incorporated into an evolving MWIP; and
- Develop project budgets based on an appropriate mix of investment from both the public and private sectors.

In addition, the following aspirational goals were in place and projects that were considered high priority generally satisfied one or more of the following criteria:

- capturing opportunities;
- improving the quality of life;
- increasing social equity;
- enhancing economic diversity and productivity; and
- reducing the impacts on the environment.



To deliver on the priorities within the MWIP, effective partnerships will be required between:

- Local government
- Regional Development Council
- Department of Regional Development and Lands
- Western Australian Regional Development Trust
- Aboriginal groups
- Non government organisations
- Planning committees
- Communities
- State government departments
- Federal government – including Regional Development Australia
- Industry eg Geraldton Iron Ore Alliance
- Non profit organisations

Mid West Investment Plan Structure

The Plan is presented in three sections. SECTION ONE provides an outline of the Mid West and the social, economic, planning and infrastructure considerations taken into account in the development of the MWIP. SECTION TWO outlines the objectives for the Mid West region, with each having a series of priorities to provide a focal point for actions. SECTION THREE – PRIORITY PROJECTS and MASTER LIST details the initiatives and projects required to be undertaken in the Mid West to enhance the Region's economic and social development.

The key components of the MWIP are the investment in economic infrastructure (railways, roads, ports, communication, electricity and utilities) and the social and community infrastructure (health, education, town revitalisation and recreation facilities).

Consultation

To ensure the projects that make up the MWIP reflect the community views, extensive consultation and assessment of existing planning processes occurred throughout the region. In establishing the potential projects within the Mid West, all tiers of government, non profits, industry, community and private sectors were consulted directly on at least two occasions and more frequently via telecommunication.



A 'Master List' of the recognised infrastructure needs was developed through reference to the Mid West Infrastructure Analysis (WAPC, 2008) and consultation with local government at the sub regional Country Local Government Fund (CLGF) planning workshops. Further detail was obtained through direct dialogue with regional government and non government organisations in interviews and two workshop events. The workshops at the beginning and end of the consultation phase provided several opportunities for regional decision making. Furthermore, the MWDC maintains a register of proposed and planned projects in the region.

Project Prioritisation

Through this process, an agreed list of Mid West projects was assessed and prioritised into three categories:

- High – projects that will provide significant economic and/or social benefit to the local community and demonstrate regional benefits. Essential for economic growth;
- Medium – projects that provide valuable social and/or economic benefits. Broad regional benefit and important for regional growth; and
- Low – provide some social and/or economic benefits as well as broader regional benefits. Worthwhile for regional growth.

After further consolidation of project details, the MWDC Board identified the "Flagship" projects. These were categorised as absolutely essential to the region and had a demonstrated need to be progressed substantially or completed within four years, therefore requiring urgent funding consideration.

It is important to note that priorities identified in the MWIP were determined by sub regional communities and the MWDC Board. The focus of many of these high priorities and "Flagship" projects has been on community related infrastructure, noting that these predominantly sub regional projects were generally not the focus of the MWRPIF.

Process

Each of the projects has been divided into relevant categories, which include the following. The key areas under which the MWIP is being developed include:

- Infrastructure and Services
- Community Development and Town Centre Revitalisation
- Tourism
- Industry
- Housing and Land Development
- Utilities
- Health
- Education
- Energy
- Maritime
- Environment



SECTION 1

THE MID WEST REGION

REGIONAL SUMMARY

The Mid West Region and Sub Regions

The Mid West extends from Green Head to Kalbarri and more than 800 km inland to Wiluna, covering approximately 466,766 km² or nearly one-fifth of the area of Western Australia. The region is home to an Estimated Resident Population (ERP) of 54,984 (Australian Bureau of Statistics (ABS) 2009) in settlements ranging from small villages to a regional city.

Local Government in the Mid West

The large area and widely dispersed settlements are serviced by 18 local governments in the Mid West, divided into three distinct sub regions that demonstrate similarities of environment, land use, demography, industry and issues. Throughout the development of the MWIP, consultation with local government and the community has been along sub regional groupings. Importantly, experience has shown that effective engagement necessitates such an approach, providing each sub region with the capacity and opportunity to present their specific local priorities. Further details of each of the local governments are provided in Appendix 1.



Murchison

The Murchison comprises the shires of Cue, Murchison, Meekatharra, Yalgoo, Wiluna, Sandstone and Mount Magnet. It covers 88% of the region's landmass but has only 6% of the Mid West population (approximately 3,450). Retaining and growing population share is a significant challenge and largely dependent on influencing a change in fly-in/fly-out (FIFO) workforce approaches of resource companies. Despite low population, the Murchison hosts the majority of existing and proposed resource projects.

Due to the remote location and 'radio quietness' of this sub region, the Murchison has been selected as one of two possible sites for the 1.5 billion Euro International Square Kilometre Array (SKA) radio telescope. Through the development of the preliminary studies and construction of the Australian Square Kilometre Array Pathfinder (ASKAP) at the Murchison Radio-astronomy Observatory (MRO), this internationally significant scientific project has already delivered tangible benefits to the region, which are expected to increase as the project progresses.

Historically, the production of wool on pastoral stations was the complementary industry to mining. Over a decade of dry seasons, increasing predation by wild dogs and global economic impacts on wool markets have all negatively impacted the pastoral industry. Tourism is an increasingly important industry for the economic diversity of the region and outback tourism has great potential for growth.

Approximately 30% of the Murchison sub region's population is Aboriginal, however, ABS population estimates of the Aboriginal population is likely to be significantly understated. There is evidence of significant social disadvantage in Murchison communities, with education and health outcomes below the regional average. However, this tends to be obscured in data presented on a regional basis.

North Midlands

The North Midlands comprises the shires of Carnamah, Coorow, Morawa, Perenjori, Mingenew, Three Springs and Mullewa and is home to 10% of the Mid West population (approximately 5,400). A significant proportion of the North Midlands (11%) population are Aboriginal, however, some towns have higher proportional Aboriginal populations. For example, 28% of people in Mullewa and 23% of people in Morawa identify as Aboriginal.

The North Midlands population tends to be older, as young people often leave to pursue education and work opportunities elsewhere. Once again, retaining and growing its population share is a challenge to the North Midlands, where the ageing demographic tends to retire to the coast.

Since the first settlement of this sub region in the mid 1800s, agriculture has dominated the landscape and remains the predominant industry base supporting the population. Farm amalgamation, a decade of dry seasons, increasing fuel prices, declining profit margins, uncertainty in commodity markets and GFC related credit constraints have all driven structural adjustment within the agriculture sector.

More recently, a number of iron ore projects within close proximity to towns such as Perenjori and Morawa have been developed and two long life magnetite projects (Karara and Asia Iron Extension Hill) provide major economic opportunities for a number of North Midlands communities. Concerns have been raised about housing availability and the timely provision of social infrastructure in Morawa and Perenjori in particular, to capture benefits associated with these projects.

On the coastal fringe of the North Midlands, including the coastal towns of Green Head and Leeman, western rock lobster (WRL) fishing is a significant local industry. Since 2009/10, the WRL industry has undergone major changes due to alarming biological indicators driving the Department of Fisheries to adopt an alternative fisheries management strategy. The introduction of a Total Allowable Catch for the fishery and individual quota allocations to licence holders is probably the most substantial change to the WRL industry since 1963 when it was declared a limited entry fishery. The changes will assist ensure the viability of the industry as well as the sustainability of the fishery.

There is growing pressure for the coastal settlements of Green Head and Leeman to expand. This pressure will increase now that Indian Ocean Drive has been completed and there is potential for further development pressure and increased tourist numbers in the coastal areas of this sub region.

Tourism is important in the North Midlands with coastal, holiday peak seasons being a focus for many southern Western Australians. However, the inland attractions of heritage and wildflowers are driving the development of new tourist trails to capitalise on attractions that are available outside of the relatively short wildflower season.

Given its climate and latitude, the North Midlands are identified as one of Australia's best locations for renewable energy projects, with wind, solar and hot rocks all providing real development opportunities. While renewables would provide economic diversity, this development is impeded by current reliance on access to the South West Interconnected System (SWIS) transmission infrastructure, which is inadequate for current loads, let alone forecast load growth.

Batavia Coast

The Batavia Coast sub region comprises the primary centre of Geraldton-Greenough and the surrounding shires of Chapman Valley, Irwin and Northampton. The majority (84%) of the region's population lives in the coastal locations of Geraldton, Dongara and Kalbarri, with 37,900 people (est. 2009) residing in the City of Geraldton-Greenough.

Geraldton is the regional centre for retail, manufacturing, commercial fishing, shipping, transport, health services, education (preschool through to tertiary level) and is the seat of Mid West government business. Geraldton is at the heart of a sub region characterised by rapidly growing communities within these coastal shires, which will provide the base for the population expansion in the Mid West region.

The Batavia Coast attracts significant numbers of visitors keen to experience the coastline in proximity to good amenities. Completion of the Indian Ocean Drive will increase opportunities and further development of tourist product.

Centres in the Batavia Coast have the potential to facilitate fly-in/fly-out (FIFO) or drive-in/drive-out (DIDO) arrangements to their respective mines and base their usual residence in these coastal localities.

Coordinated Planning in the Mid West

Good regional investment planning is essential to the delivery of balanced outcomes over such a large and diverse region. An estimated \$19 billion worth of projects are planned or in progress in the Mid West over the next 5-7 years. The major proposed project is the Oakajee development, which is considered “the single most important project for Western Australia’s economic development over the next 50 years” (Premier Colin Barnett, March 2009).

Oakajee will trigger major investment through the region. Development of suitable social and community support infrastructure will complement the substantial economic infrastructure existing and proposed for the Mid West. The MWIP aims to identify the opportunities for investment in infrastructure to support regional growth and be prepared for the real pressures likely to be placed on existing infrastructure by massive developments such as Oakajee and its associated mining projects. The timely provision of socio-economic infrastructure affords a unique opportunity for hinterland communities to capture long term benefit from the resources sector.

In order to address challenges and capture opportunities, considerable coordination between the various planning processes currently being undertaken in the region is required. Courtesy of the MWIP and the MWRPIF, the Mid West is now ideally placed to deliver infrastructure in line with regional strategic planning.



Mid West Regional Planning Committee

The DOP and WAPC operate a number of Regional Planning Committees throughout the State. The MWRPC is developing the MWRPIF. This sets the strategic planning framework at a regional level and endeavours to address the region’s major strategic economic infrastructure priorities such as port, rail, industrial estate and infrastructure service corridors etc. As part of developing the Framework, a process was run by the MWRPC and the DOP to identify and prioritise regional infrastructure requirements in the Mid West. For the purpose of this process, infrastructure was broadly classified as being regionally significant if it would:

- support or enable the development of the regional economy; and/or
- perform a function that caters for a regional catchment.

Identifying the Mid West’s regionally significant infrastructure requirements involved extensive consultation with State Government agencies and other regional stakeholders.

Once identified, the regional infrastructure projects were prioritised by the MWRPC and the Infrastructure Coordinating Committee (ICC) at a joint workshop held in November 2010. The outcomes of this process were endorsed by both committees in February 2011 and have subsequently been incorporated into the MWRPIF. The Framework will soon be released by WAPC as a draft document for public comment along with a supporting document, the Mid West Regional Infrastructure Priorities Project 2010 Workshop Paper, which consolidates the proceedings and outcomes of the joint workshop.

Infrastructure Coordinating Committee

The Committee consists of Directors General of the State Government Departments involved in the provision of infrastructure in the State and advises the WAPC on planning for the provision of physical and community infrastructure throughout the State. It has the powers to coordinate the metropolitan development program, the country land development program, and the provision of infrastructure for land development.

The ICC was actively involved in the process run by the MWRPC to identify and prioritise the Mid West’s regional infrastructure requirements and participated in the November 2010 joint workshop. In February 2011 the ICC endorsed the findings of the joint workshop with the MWRPC and supported the release of the Mid West Regional Infrastructure Priorities Project 2010 Workshop Paper. This process will allow the WAPC, through the ICC, to provide the State Government with a coordinated position on the Mid West priority regional infrastructure requirements.

Mid West Strategic Infrastructure Group

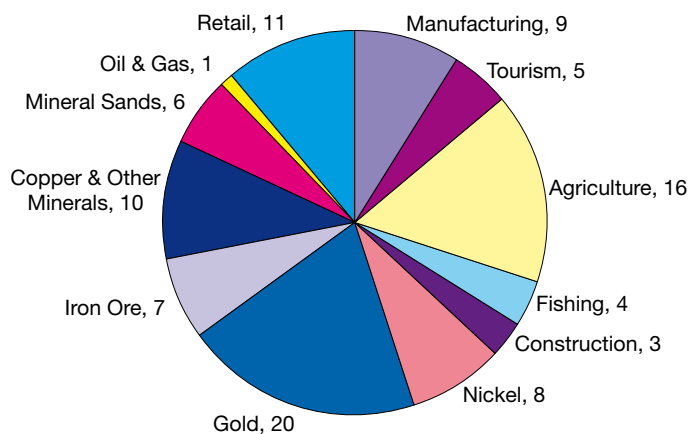
The Mid West Strategic Infrastructure Group (MWSIG) was established in mid 2005 by the MWDC to support the timely development of strategic infrastructure (roads, rail, port, power, water etc) necessary to facilitate major projects. This Group, which continues to meet bi monthly, focuses on resources projects and specifically the establishment of an iron ore industry in the Mid West. MWSIG provides a regular forum for regional officers to keep up to date with progress of the many current and planned projects for the Mid West, and acts as a key regional coordination group.

Mid West Economy

Despite the challenges of servicing a large geographic area, the advantage of the Mid West is its broad economic base. It is dominated by mining with major contributions from agriculture, retail, tourism, fishing, aquaculture, construction, renewable energy, technology and manufacturing industries.

The Gross Regional Product (GRP) for the Mid West region in 2009/10 (see fig. 2) was \$4.5 billion, representing a 2.4% contribution to Gross State Product (Mid West: a region in profile 2011 - Department of Regional Development and Lands (RDL); MWDC). Mining constitutes 52% of the GRP for the region.

Figure 2. 2009/10 Gross Regional Products by Sector (%)



Infrastructure in the Mid West

The WAPC's Mid West Infrastructure Analysis (MWIA) (2008) provided options for consideration by Government. This report recommended a more realistic medium term projection to ensure the existing core infrastructure, particularly rail, roads, port and social infrastructure is upgraded and maintained, and further strategic planning for urban and industrial growth is undertaken. Within the region key infrastructure is in need of revitalisation and reinforcement. There are constraints to future development imposed by inadequate capacity across a number of key areas.

The MWIA was undertaken to identify the current and future demands for infrastructure that had a whole of region impact. This examination of Mid West infrastructure identified the following as key issues:

1. Heavy rail transport is critical for some large mining projects and the development of a robust rail network will be instrumental to the prosperity of current and future resource projects;
2. Establishment of rail and infrastructure corridors, including detailed alignment planning, land acquisition and assembly;
3. Future water supply and associated infrastructure requirements for the hematite and magnetite projects are uncertain;
4. Power supply has been identified as inadequate by industry and several local governments. This has the potential to act as an impediment to additional growth and development;
5. Parts of the road network throughout the region require upgrades based on current condition and this will be exacerbated by ongoing and increased heavy vehicle usage;
6. Uncertainty regarding the full scale of resource operations, and actual population growth rates, means that the demonstrated need for government investment will remain a contentious issue;
7. Strategic planning support has not kept pace with the increased volume of statutory planning applications; and
8. A number of inland towns have declining populations and are working to gain economic growth as a spin off from resource development in the region. It is not clear how growth in this sector will influence these towns, but there is a strong desire to plan to identify and capture benefits wherever they exist. One such opportunity is to make towns (eg Morawa, Perenjori, Dongara, Geraldton) more 'liveable' such that some proportion of the mining workers from nearby Karara and Extension Hill may reside locally.

The growth of the resources sector in the Mid West is somewhat limited by the current state of the infrastructure in the region. The Mid West Infrastructure Forum held in Geraldton by the MWDC in April 2005 highlighted two major infrastructure bottlenecks in getting product from the mine to market. These are 1) the lack of an efficient, high capacity rail network; and 2) that the Geraldton port is constrained by the size of ships it can handle. The establishment of a strategic (heavy) industrial area was noted as a potential third obstacle. The establishment of Oakajee would address these bottlenecks.

Oakajee

The proposed development of the Oakajee deepwater port and industrial estate (initially driven by the high volume hematite and magnetite iron ore projects) is anticipated to create significant economic activity and pressures on existing infrastructure. State and Federal funding of \$678 million for common use port facilities reflects the importance of the Oakajee project at national and state levels.

The existing Geraldton Port will continue to play a vital role in facilitating new mineral exports but does not have the capacity to manage expected iron exports upwards of 45 mtpa and potentially 100 mtpa. In addition, Geraldton Port is constrained by depth and urban development.

Mid West Energy Stage 1 and 2

The provision of power is seen by regional stakeholders, including MWDC, as the single biggest impediment to growth in the Mid West region. The major development projects that are planned heighten the Mid West's need for a secure, high capacity electricity transmission network to underpin the future economic and social growth of the region. The proposed project is broken into two phases and involves upgrading the existing 132 kV to a double circuit 330 kV transmission line.



Mid West Energy Stage 1 is the construction of transmission lines from Pinjar to Eneabba (Carnamah), which connects through to the Karara and subsequently to Asia Iron (Extension Hill) mining projects east of Morawa / Perenjori. Mid West Energy Stage 2 involves the construction of power lines from Eneabba to Oakajee (159 km). It is identified as a key regional priority and the State Government is seeking funding for this development through Infrastructure Australia.

This infrastructure will enable the region to optimise the significant opportunity for a diverse renewable energy sector from demonstrated wind resources, potential wave energy, geothermal leases, some of the highest solar indices in Australia for photovoltaic or solar thermal plants and ample land to develop bio fuel resources. The 20% target for renewable energy in 2020 and likely carbon pricing place the Mid West in an advantageous position to become a focus for the production of renewable power.

SMART Mid West and Murchison Radio-astronomy Observatory

MWDC has progressed a SMART Mid West policy for over a decade. It involves the development and integration of education, training and research institutions within the Mid West, together with the technology, processes and infrastructure by which they operate. An objective is the transfer and involvement of this knowledge base to Mid West industry and the community. The MWDC has used SMART Mid West to form partnerships with education and technology stakeholders and some of the notable outcomes include the establishment of the Geraldton Universities Centre (GUC), the Separation Point Marine Precinct (SPMP), the Mid West Science Summits and the ASKAP project.

The Mid West is establishing one of the world's premier sites for radio astronomy at the MRO in Boolardy Station – 280km north east of Geraldton. The Federal and State governments (and a range of other partners) have already committed funds to precursor projects including the Australian Square Kilometre Array Pathfinder (ASKAP) and the Murchison Widefield Array (MWA) project. This commitment has included the development of the National Broadband Network (NBN) project between Perth and Geraldton and further connection between Geraldton and the MRO. There is a commitment to build a facility support centre in Geraldton to support radio astronomy projects. There is also potential to facilitate the development of locally based technology industries.

There is significant opportunity to identify and capture synergies with all 'SMART' projects and infrastructure to diversify the Mid West's economic base, enhance communications and service delivery, and increase student participation in tertiary education. The development of the region's renewable energy sector, and the further development of the GUC and the Durack Institute of Technology (Durack) are in keeping with this ethos.



SECTION 2

MID WEST INVESTMENT PLAN OBJECTIVES

Project Objectives Summary

Outcome 1

Sustainable increase in population

- Population growth across the Mid West Region.
- Retention of current residents.
- Conversion of FIFO to DIDO workforce to resident population.
- Continued and focused promotion of the Mid West as a desirable place to live, work, study and invest.
- Attraction of the 'retiree' demographic to the Mid West.
- Population retention of youth linked to employment and education opportunity.
- Reduced need to leave the Mid West for training or higher education.
- Retention of the 'younger' demographic to settle in the Mid West for lifestyle, business, employment and family reasons.
- Coordinated planning to accommodate predicted population growth and account for rapid escalation in population as major projects commence.
- Provision of quality housing and accommodation to meet the needs of all sectors.



Outcome 2

A refreshed and revitalised Mid West

- Revitalisation of the smaller towns throughout the Mid West with investment in essential recreational, cultural and heritage facilities.
- Investment in streetscapes and main street programs to improve the aesthetic appeal of towns.
- Resources available to address structural or land/planning issues that may be required to improve main street or town functionality.
- Investment in the local Community Resource Centres (CRC) (Telecentres) to support community development initiatives.
- Investment in Childcare facilities to enable parents to fully engage in employment opportunities that may be available.
- Improved access to, and participation in, artistic and cultural activities and facilities.

Outcome 3

Enhanced regional unity and promotion

- A collaborative and unified approach to development in the region.
- The marketing and promotion of the region as a complete package as a place to visit, live, work, study and invest.
- Demonstrate the investability/liveability of the Mid West to attract and retain people to the region.

Outcome 4

Balanced urban and coastal development

- Phased urban development including residential, commercial and tourism uses and public open space.
- Provision of residential and industrial land sufficient for present and future needs.
- Planning and delivery of services to ensure community and industry infrastructure progress concurrently.
- Development of eco friendly accommodation options.

Outcome 5

Improved government services

- Improvement of services through identifying gaps in service delivery.
- Exploring alternative delivery models for government services to remote communities.
- Provision of better quality government buildings, offices and staff housing in the Mid West.
- Further development and availability of health and education resources to the community to improve regional quality of life and attract and retain people.
- Improved tax rebates and allowances for staff working in regional areas.

Outcome 6

Effective health service delivery

- Long term positive health outcomes for the region's residents.
- Develop a broader range of health service provision.
- Development of specialist services that can be accessed across the region.
- Provision of appropriate locally based aged care and independent living facilities to encourage people to remain in the region.
- Improved Aboriginal health outcomes across the Mid West region.

Outcome 7

A skilled and educated Mid West community

- Increase the level of participation in higher education across the Mid West.
- Increase range and capacity of university and training options available at GUC and Durack.
- Industry relevant training and education options accessible to the whole Mid West community.
- Enhanced capacity building for community leaders and groups, and retention of these skills in the Mid West.
- Attraction of skilled people to the region.
- Implementation of Mid West Gascoyne Workforce Development Plan.
- Quality information technology and communication services.
- Increased numbers and choice of traineeship and apprenticeships based in the region.
- Ongoing partnerships with industry in the region to ensure delivery of suitable training to meet local demands.
- Enhancement of research and SMART facilities to drive innovation and creativity, and support entrepreneurship.



Outcome 8

Positive outcomes for Aboriginal people

- Improved health and education outcomes for Aboriginal people in the Mid West.
- Targeted programs and services for Aboriginal groups, particularly youth and women's support programs.
- Culturally appropriate facilities to permit Aboriginal people of all ages to gather, learn and play.
- Improved employment and business opportunities for Aboriginal residents.
- Enhanced self determination through increased participation in local and state governments and regional organisations.
- Further enhancement of Aboriginal art programs
- Hostel accommodation available to support Aboriginal people to access health and education services.
- Support for recently established Mid West Aboriginal Workforce Development Centre (MVAWDC).



Outcome 9

Improved regional infrastructure to facilitate coastal and inland development

- Improved power infrastructure.
- Improved roads systems where main arterials are safe and meet increased traffic loads.
- Improved communication technology and services.
- Adequate, safe, secure and well managed water supplies.
- Improved facilities for sewage and wastewater treatment.
- Regional waste facility/facilities.
- Expansion of alternative and renewable energy resources.
- Improved airport facilities at large regional centres and smaller outlying towns.
- Development of ports, harbours, marinas, jetties and boat ramps to support industry and suit the commercial and recreational needs of the region.
- Implementation of important cross regional initiatives to continue to connect the inland to the coast eg PortLink project.
- Rail networks to adequately support mining and agriculture industry needs.
- Infrastructure corridors planned to meet current and future needs for transport, energy and utilities infrastructure.

Outcome 10

Prosperous and diverse primary industries

- A diverse and resilient primary industry sector.
- Further diversification of fishing, agricultural and pastoral industries.
- Value adding opportunities capitalised.
- Improved key infrastructure to support industry, particularly water, energy, transport and communications infrastructure.
- Sustainable practices adopted as standard in the Mid West agriculture, pastoral and fishing industries.
- Continued investment in horticulture, agriculture and pastoral activities, and fisheries research and management.
- Enhancement of research and SMART facilities to drive innovation and creativity, and support private sector entrepreneurship.
- Encourage investment in aquaculture and fish farming.
- Enhanced job and career development and succession planning in primary industry to retain younger generations within the family business.

Outcome 11

Diversified and enhanced minerals and energy industries

- New mining and oil and gas ventures commenced in the Mid West.
- Greater level of exploration for natural resources.
- Promotion of Mid West communities as sources of labour and services for new mining, and as bases for FIFO or DIDO operations
- Provision of relevant support infrastructure such as power, rail and roads.
- Development of Geraldton and Oakajee ports and industrial estate to support start up projects and products.
- Provide port facilities that cater for both bulk and 'boutique' (relatively low volume containerised) exports.



Outcome 12

Continued expansion of the tourism industry

- Mid West region to be a major tourism destination with an established brand.
- Attractions and services to satisfy a diverse profile of tourists.
- Unique tourism experiences eg wildflowers, Abrolhos Islands, Outback Pathways and Aboriginal Tourism.
- Abrolhos Islands promoted as an accessible, ecofriendly tourism site.
- Improved air services both within and to the region.
- Broad range of accommodation types available.
- Safe and regularly improved road networks eg additional passing lanes along the Indian Ocean Drive.

Outcome 13

Establishment of new and innovative industries and services

- Encouraging innovation and creativity across all sectors eg SMART Mid West.
- Identify and pursue new opportunities such as the development of renewable energy initiatives.
- Developing collaborative advantage through clusters and technology business hubs eg Mid West as the centre for renewable energy in Western Australia.
- Increased export opportunities for Mid West products.
- Development in partnership research facilities eg SKA, climate change, renewable energy, Abrolhos Islands research facilities at Rat Island etc.



Outcome 14

A valued and protected natural and built environment

- Appropriate assessment, management and regional planning of the competing demands on the natural, built and social landscape e.g. land and water.
- An appropriate coastal management strategy is in place and resources committed to protection and management as required.
- A long term approach to sustainable natural resource management.
- An effective and adequately resourced regional waste management strategy.
- Balance between a growing economy, environmental and community values.
- Heritage sites identified, protected and conserved.
- Increased use of renewable energy at large (utility) and small (domestic and civic buildings) scales.
- Climate change and carbon neutral approaches to planning.
- Appropriate management of the crown conservation estate.

Outcome 1:

Substantial Increase in Population

The estimated population of the Mid West Region in 2009 was 54,984 (ABS, 2009), 2.4% of the total population of Western Australia. In 2004, the WAPC forecast the population of the Mid West to increase to 58,100 in 2031, however, by 2009 the region's population had almost reached the projected estimate for 2015 of 55,000 residents. These variances continue to challenge the appropriate planning for community and social support infrastructure throughout the region. Population projections for Western Australia also show that the average age of the population will increase, which also needs to be factored into infrastructure planning.

The City of Geraldton-Greenough has the largest population of the region's 18 local government areas with 37 895 residents, 68.9% of the regional total. The smallest is in the Shire of Murchison with an estimated 114 residents. In the 10 years to June 2009, the region's population increased at an average annual rate of 1.0% (See Table 1 for Population details by local government area (RDL 2011)). The highest population increase was in the Shire of Irwin, where the ERP grew at an average annual rate of 2.2%. The greatest decline was in the Shire of Meekatharra, with an average of -3.2% per annum over the same period.

Aboriginal people make up 10.6% of the Mid West population, with 5,493 estimated residents. The Shire of Meekatharra has the highest proportion of Aboriginal people at 51.6% of the population. With some Aboriginal people being transient, the number and location of Aboriginal people is difficult to quantify, particularly in the Murchison. This has implications for service delivery.

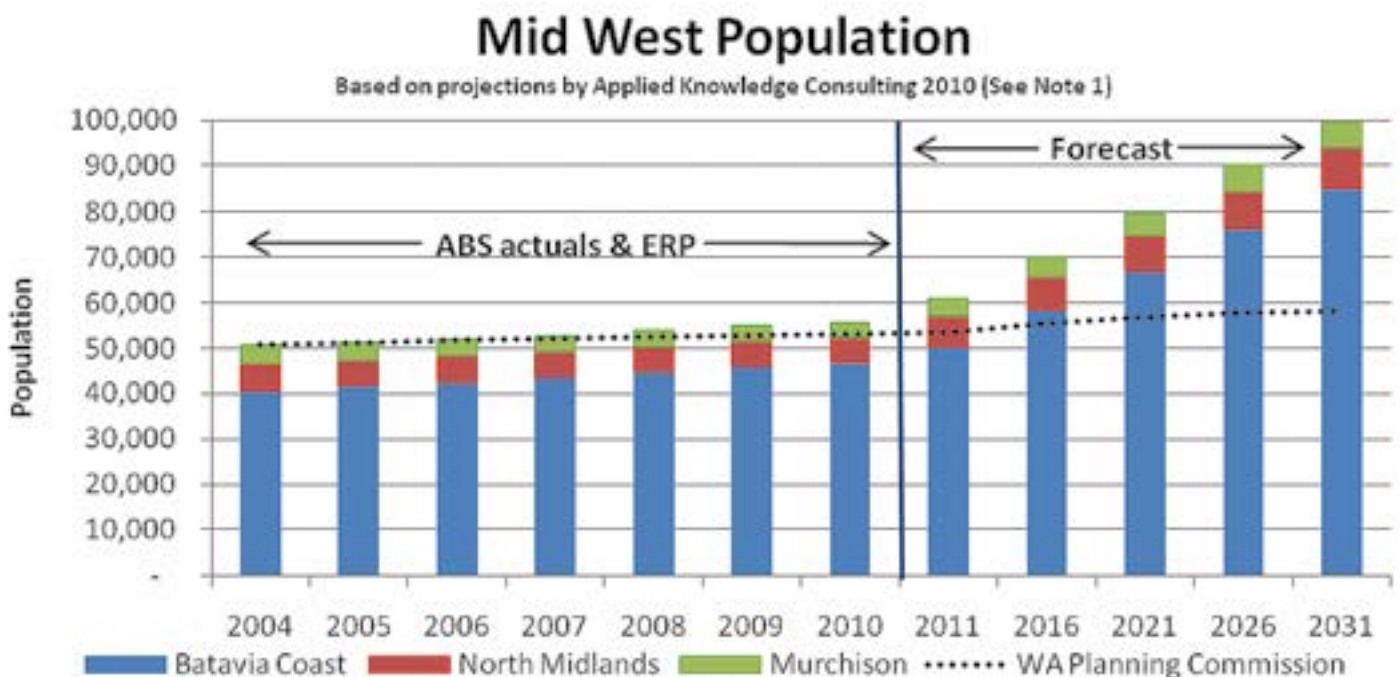
QUICK FACTS & STATS

Source for statistics: ABS 2009

- The ERP of the Mid West region in 2009 was 54,984.
- Geraldton ERP (2009): 37,895
- North Midlands ERP (2009): 4,555
- Batavia Coast ERP (2009): 46,978
- Murchison ERP (2009): 3,451



Figure 3: Mid West Population Growth



1. Based on planned and possible major projects and outcomes from proactive industry development

Table 1: Population Scenarios (Mid West Region
Investability Model Phase Three – Applied Knowledge
Consulting 2010)

Source	2016	2021	2026	2031
ABS	63,014 (2015)	70,601(2020)	79,103(2025)	88,628(2030)
WAPC	55,400	57,000	57,800	58,100
Economic Forecast	63,990	72,960	81,305	90,431
Economic Forecast with multiplier	70,089	79,824	89,988	99,681

Table 2: Population growth in the Mid West 1999-2009 by local government (RDL 2011 Regional Snapshot)

Region/LGA	1999	2009	% share 2009	AAGR 1999-2009 %	Aboriginal % share 2006
MID WEST	49,847	54,984	100.0%	1.0	10.6%
Carnamah (S)	857	763	1.4%	-1.2	5.9%
Chapman Valley (S)	873	1,069	1.9%	2.0	4.1%
Coorow (S)	1,478	1,185	2.2%	-2.2	1.6%
Cue (S)	391	302	0.5%	-2.5	38.8%
Geraldton/Greenough (C)	31,854	37,895	68.9%	1.8	9.0%
Irwin (S)	2,898	3,595	6.5%	2.2	2.2%
Meekatharra (S)	1,690	1,218	2.2%	-3.2	51.6%
Mingenew (S)	599	457	0.8%	-2.7	5.9%
Morawa (S)	1,048	882	1.6%	-1.7	11.6%
Mount Magnet (S)	798	664	1.2%	-1.8	24.7%
Mullewa (S)	1,100	878	1.6%	-2.2	30.1%
Murchison (S)	157	114	0.2%	-3.1	34.5%
Northampton (S)	3,244	3,541	6.4%	0.9	5.7%
Perenjori (S)	620	536	1.0%	-1.4	11.1%
Sandstone (S)	147	133	0.2%	-1.0	25.2%
Three Springs (S)	787	732	1.3%	-0.7	6.4%
Wiluna (S)	985	755	1.4%	-2.6	40.7%
Yalgoo (S)	321	265	0.5%	-1.9	42.8%

Source: ABS 2009

Outcome 2:

Refreshed and Revitalised Mid West

Effective regional development relies on the provision and maintenance of infrastructure. Without adequate infrastructure in power, water, telecommunications and social infrastructure, towns and whole regions will deteriorate, forcing the population towards the metropolitan area or major regional centres. Maintaining and upgrading infrastructure is essential to ensure the region and its communities can meet the current and future needs of its residents, as well as attract and retain new residents.

A constant theme in consultations with the Mid West local governments was the need for revitalisation and/or enhancement of their towns with investment in essential recreational, cultural and heritage facilities. In general, enhancements to socioeconomic infrastructure and improvements to the aesthetics and functionality of main street and town areas were consistently identified.

A number of common issues have been identified that affect most local governments in the Mid West, including:



- Upgrading of existing road, energy, telecommunications and rail networks;
- Reducing the impact of heavy vehicles through townsites;
- Restoring the capacity of existing essential service infrastructure to cater for current needs and future growth;
- Enhancing the ability of inland towns to attract new residents and businesses; and
- Providing local government with adequate planning resources to support future growth arising from major projects including Oakajee and related developments.

Sporting and recreational facilities in many towns are either lacking altogether or out dated and no longer able to meet current needs. Swimming pools, sporting clubs and town halls are probably highest on the list of priorities for upgrades, as a large number were built back in the 1960's-70's and require upgrading or replacement.

With the ageing population the provision of aged care facilities is of increasing importance. In particular, investment in aged care that provides pathways from low through high and to intensive care will have benefits by retaining several generations of families within the community. Elderly people who are no longer able to stay on their rural properties or who want to move out of larger homes require a secure place that can accommodate their needs, while also remaining connected to friends and family in the region. In this respect, supportive health facilities are fundamentally important to retaining people in communities.

The lack of infill sewage in a number of communities can impact the environment, have health implications and will require future investment to facilitate further growth and development in the region. As awareness of the benefits of recycling programs and reducing the environmental footprint penetrates the community, the need for sub regional landfill sites for commercial and household waste and a regional waste strategy is becoming increasingly important.

Availability of land (residential, commercial, industrial) is fundamental to regional development and the ability of communities to capture benefit from major projects. Innovative models to encourage both public and private investment need to be developed to meet this need.

Roads are a key priority for local governments in regional areas and this was reflected in the Mid West local government workshops. The large region and dispersed population centres means that all residents are reliant on quality and safe road infrastructure for the operation of their businesses, supporting industry and private activities.



Outcome 3:

Enhanced Regional Unity and Promotion

The Mid West region is one of nine Regional Development Commission regions in Western Australia. Each of the sub regions within the Mid West (Batavia Coast, North Midlands and Murchison) are distinct and their population centres are significant distances from each other. The development of these sub regional groupings as well as dialogue between local governments on reform has enhanced a collective perspective to regional planning. Working together would improve the region's leverage in attracting developments, residents and services.

A united approach to planning for infrastructure investment across the Mid West is required to ensure that project development and delivery of infrastructure occurs efficiently and equitably. While the MWRPIF will address infrastructure needs at a regional level, there is a need for a similar, sub regional approach for economic, community and social infrastructure. In collaboration with the DOP, the MWDC intends to work within that space and provide MWIP as an ongoing vehicle for sub regional needs assessments over time.

Tourism is primarily promoted through Australia's Coral Coast and Australia's Golden Outback; the former being a zone that stretches from Lancelin to Exmouth and the hinterland covered by the latter. There is much to be gained by a unified approach to marketing and promoting the Mid West as a great place to live, work, study and invest.



Outcome 4:

Balanced Urban and Coastal Development

The Mid West region covers an area of over 472,000 km² with a coastline that stretches approximately 330 km. With a total population of around 55,000 the area has a very low population density overall. With the steady decline of the agricultural and pastoral industry in much of the Mid West there has been a marked shift in the demographic structure of the region.

People have moved away from the inland shires towards coastal local governments such as Geraldton-Greenough, Irwin, Coorow, Northampton and Chapman Valley. The recent population figures substantiate this movement, as there has been a steady population decline in many of the inland local governments over the preceding decades and a proportionate incline in the population density of the coastal local governments. The trend over the last four decades is almost a tale of two differing scenarios - local government areas with coastal communities (eg Leeman and Greenhead) have more than doubled in population while the rural (eg Mingenew) and pastoral areas (eg Murchison) have seen a slow and steady decline in population over that time. That said, a number of inland towns are reversing declining population as a consequence of resource project developments.



A significant portion of each local government's population is located in a few centres. If this trend continues, much of the growth predicted by 2021 will occur in these centres. Coastal centres such as Geraldton-Greenough, Kalbarri, Port Denison, Leeman, Greenhead and Dongara are experiencing strong subdivision activity and this trend looks likely to continue. The Murchison sub region faces a challenge in population retention.

The WAPC, with the DOP, has established the MWRPC. The MWRPC is one of four new regional committees established in Western Australia in response to economic, social and environmental pressures in the regions.

Local governments and the DOP are conscious of the pressures of the demographic movement to coastal communities and the strains it places on social infrastructure. For example the DOP, City of Geraldton-Greenough and the Shire of Irwin have initiated a coastal planning project in the Dongara to Cape Burney coastal area. This project will provide strategic planning guidance for future sustainable development, subdivision and land use along the Dongara to Cape Burney coastal strip underpinned by sound environmental principles. It will result in the development of a strategic coastal management plan that will be used by planners, developers and the community.

A number of inland local governments also consider that the anticipated resource developments in the region could be leveraged to attract new employment and business opportunities to existing towns. With new major projects comes an increase in the regional workforce, and this potential workforce will have a direct impact on the size of the regional population. The effect on the local communities will predominantly be gauged by the use of FIFO workers in comparison with the number of resident employees.

The City of Geraldton-Greenough has been proactive in developing a sustainable future city planning initiative. To make the most of the unprecedented development opportunities and challenges facing the greater Geraldton region, the City, supported by a \$300,000 grant from MWDC (through the Royalties for Regions Regional Grants Scheme), is leading an innovative project to create a collaborative vision and plans for the future. This project will fully engage the local and regional community to develop a long term framework for sustainable development and growth for the region. The resulting plan will provide all sectors of the region with a greater level of agreement, clarity and certainty about the future.

Outcome 5:

Improved Government Services

The issues surrounding provision of services to such a large area with a relatively small scattered population is acknowledged. The State Government must continue to play a major role in enhancing permanent and visiting services. The Murchison sub region contains the majority of existing and proposed resource projects and North Midlands is also experiencing increased mining activity. However, small and declining populations generally struggle to make the strong business cases required to get government investment support.

The Murchison sub region requires significant social investment as do parts of the North Midlands. The Batavia Coast is well placed but requires industry ready infrastructure to gain the best economic development outcomes.

The liveability and investability of a region is enhanced by the level and quality of government services. Education and health, housing and social amenity are key factors that determine retention of population. As the Mid West enters a period of unprecedented growth there will be pressures across a range of government portfolios.

Given its remoteness, it is increasingly necessary that important government services are permanently based in the Murchison sub region. This will help arrest and hopefully reverse the trend for many government services being accessed from major regional centres including Geraldton and Kalgoorlie.

Table 3 presents the major areas of concern within the economic and social/community support infrastructure in the Mid West.

Economic Infrastructure	Social and Community Support Infrastructure
Roads (state and local government controlled)	Housing affordability and availability
Rail infrastructure and rolling stock	Education facilities
Power supplies	Social support services such as child care and health care
Water supplies and quality	Community facilities including sport and recreation
Waste treatment and disposal	

Strategic approaches to service delivery that can reduce the uncertainty and unevenness of development in the region is required. The WAPC and the MWRPC is developing the overarching framework to address the need for a strategic approach and recognises the need to address the following challenges:

- Coordination and integration;
- Accurate and timely data;
- Determining a hierarchy of regional centres;
- Sustainable resource management (land, water);
- Building capacity and capability of local business;
- Diversifying the economy;
- Monitoring and managing cumulative impacts;
- Maintaining liveability;
- To consult with stakeholders to gauge needs and follow equitable, consistent and transparent processes;
- Where possible to provide infrastructure on a common user basis; and
- To ensure timely and efficient approvals processes are followed.

MWDC is a member of the MWRPC ensuring integration of the MWRPIF with the MWIP.

QUICK FACTS & STATS

In the development of the MWIP, MWDC consulted with:

- 18 Local Governments
- 27 State Government Departments
- 4 Federal Departments
- 9 Non Government Organisations

Outcome 6:

Effective Health Service Delivery

The geography of the Mid West presents a considerable challenge for health care in terms of travel time and serving a sparse population. Almost 74% of the Mid West population is based in the combined coastal municipalities of Geraldton-Greenough and Irwin. Therefore the major hospitals which service the area are located within these regional centres.

Growth of the mining industry and natural population growth in the region will result in a greater need for an upgrade in medical facilities and services throughout both the regional centres and remote regional locations. Mining, agriculture and fishing are the largest workforce industries. These industries also utilise a transient workforce and as a result, issues such as social isolation, higher usage of alcohol and drugs, and risk taking behaviour are a potentially major problems.

Within the Mid West, lifestyle diseases are significantly higher than the State average. Mortality rates from smoking, unsafe alcohol consumption, sexually transmitted infections, diabetes and lung cancer are significantly higher in the Mid West than the State average. While 11% of the Mid West population are Aboriginal, Aboriginal people constitute 20% of hospital emergency department attendances.

Geraldton Regional Hospital is located in the Batavia Coast sub region and is the regional resource centre supporting the WA Country Health Service (WACHS) (Mid West). Other major regional health services and hospitals include:

- Cue Health Centre
- Dongara Eneabba Mingenew Health Service
- Meekatharra Hospital
- Morawa Perenjori Health Service
- Mount Magnet Health Service
- Mullewa Hospital
- Northampton Health Centre
- Kalbarri Health Centre
- North Midlands Health Service (Three Springs)
- Sandstone Health Centre
- Yalgoo Health Service

Health services that have grown significantly are palliative, oncology and renal. The Geraldton Regional Health Campus is a 66 bed hospital with 24 hour accident and emergency department, medical, surgical, paediatric and maternity wards. It was redeveloped in 2005 at a cost of \$50 million. St John of God Hospital is a 60 bed hospital with operating theatres, general medical and surgical, maternity unit, hospice, medical imaging and specialist centre.

Other health facilities like the Central West Mental Health Service, Rangeway Child Health Centre, Geraldton Regional Aboriginal Medical Services, Community Health Services, Hillcrest Lodge Nursing Home, Geraldton Nursing Home, Aged Home and Family Day Care Scheme. There is also a Regional Population Health Unit, a Mental Health Unit and a Regional Drug Service Team operating from the Geraldton Health Service.

The Royal Flying Doctor Service (RFDS) has a base in Meekatharra. Some communities have shown increased utilisation of RFDS: Meekatharra (45.6%) and Geraldton (41.5%). The majority of RFDS transfers are of a non urgent nature.



Challenges -

North Midlands and Murchison sub regions

WACHS (Mid West) services both the North Midlands and Murchison sub regions. The North Midlands has services at Mullewa, Morawa, Northampton, Kalbarri, Dongara, Eneabba, Mingenew and North-Midlands (Three Springs). The Murchison has services at Yalgoo, Mount Magnet, Cue, Meekatharra and Sandstone.

Significant issues for health service delivery in the Mid West include:

- Declining access to GP's in Mid West rural communities including emergency and out of hours care;
- Increased pressure on declining St John Ambulance volunteer services in rural areas;
- Population growth potential in small rural sites adjacent to the Oakajee Port development;
- The impacts of coastal population drift;
- Building maintenance and upgrade requirements; and
- Meeting service requirements of Commonwealth of Australian Governments (COAG) 'Closing the Gap' reform.

Aged care and disability services

The ageing population is placing increasing pressure on graduated care options from hostel through to high care for disabled and aged care persons in rural communities. An ageing population demographic places growing demand for increasingly complex aged care services at community and residential level and many locations in the region's inland areas have a critical lack of aged care facilities. The outcome at present is the movement of these clients to service centres on the coast, removing them from family and the community, which can have severe negative impacts.

The Disability Services Commission has a regional office in Geraldton that services the Mid West. Aged care is provided through various organisations in both a private and public capacity. There is currently a shortfall in Federal funded residential aged care beds in the region and community care services. The region is estimated to be under resourced by 138 beds based on current Federal benchmarks.



Mental health

Mental health service capabilities have increased to address the needs of the whole region due to the development of the Central West Mental Health Service.

There are also plans to develop community mental health accommodation units in the Geraldton Regional Health Campus.

Health training

Another important facility for the region is the Combined Universities Centre for Rural Health (CUCRH), which contributes to the health of rural and remote Western Australian communities through education, professional development and research. The focus is on increasing the numbers of student weeks spent in rural and remote locations in medicine, nursing and allied health teaching programs. CUCRH works towards:

- raising the profile of rural teaching, research and practice in academic departments;
- increasing recruitment and retention rates by supporting effective strategies to make rural and remote practice more professionally rewarding;
- contributing to an increased number of skilled Aboriginal people working in the health sector; and
- becoming a centre known for innovative and practical rural and remote population health research and policy analysis.



Health professional shortfalls in the Mid West

The medical workforce shortage is affecting all parts of the region, which is largely the result of changes in medical board policies towards international medical graduates. The shortage is particularly extreme in the lower North Midlands, which do not currently have a sustainable GP service. The Mid West GP Network (MWGPN) is working with local shires, Rural Health West, MWDC and WACHS to create a viable business plan that will ensure that these communities receive regular primary medical care. Strategies to share medical records through use of common IT systems, intra regional transfers and more funding for their mental health services are all priorities.

St John Ambulance Service is a non profit organisation that supplies ambulance services for all of Western Australia. It relies very heavily on a volunteer model in country towns, with the model under stress due to an increased demand for ambulance services and a shrinking pool of volunteers. Strategies to reduce the burden on ambulance volunteers are the unfunded priorities.



QUICK FACTS & STATS

Challenges/increasing demands

- Large increases in emergency department attendances are creating both spatial and staffing pressures. Since 2005 overall attendances have increased by 8.6%.
- Increased severity of patients coming to emergency is highlighting a need for greater expert support to clinicians in Geraldton and across the region. Since 2005, triage 1-3 presentations increased by 67.8% while triage 4-5 decreased by 14.1%. Recent auditing found that Geraldton's Emergency Department provides 520 phone consults per month.
- The high dependency unit has an occupancy rate of 90% leading to the unsustainable use of the Emergency Department as an overflow facility. There is also insufficient space for resuscitation and intubation.
- There is high demand for inpatient services with all adult beds having an 80% occupancy rate, paediatric beds (64%), rehabilitation beds (90%) and maternity beds (66%). There have been occasions in peak periods where beds are not available.
- There is an increasing need for expanded mental health services in the Mid West, including dedicated and safe inpatient facilities. From 2006/07 - 2008/09 mental health emergency presentations increased by 22.92%, inpatient separations by 9.69% and community mental health activity by 38.5%.
- Increased activity is also felt in all other areas of hospitals, with increases since 2005/06 including:
 - General allied health – up 33.4%.
 - Pharmacy – up 73.8%.
 - Medical imaging – up 63.6%.
 - Cancer services - referrals have increased from 91 to 156 per year.
 - Hospital at home – up 41.5%.
 - Dialysis – up 38.4%.
 - Elective surgery – up 16.2%.
 - Non elective surgery - up 107.9%.
 - Meals - up 26.7%.
 - Space for both treatment facilities and staff offices is at a premium at the Geraldton Health Campus.
 - There are difficulties for patients in the Mid West to access appropriate accommodation and transport links to and from Geraldton.

Outcome 7:

A Skilled and Educated Mid West Community

Geraldton is the educational hub of the Mid West, setting it alongside other Western Australian regional centres like Bunbury, Broome, Kalgoorlie and Albany with facilities catering from preschool to university level. As the Mid West population grows, the reliance and expectation from the community for excellence in educational facilities will grow.

A well educated, well trained skilled population in the Mid West is a key objective of the MWIP. Improvements in delivery and access to education at all levels and training are considered crucial to the ongoing development of communities and industry in the Mid West in order to address social disadvantage as well as capture local opportunities from major projects. The outcomes would be higher economic productivity in the region and potential reduction in the impact of skilled labour shortages.

In 2002, the Mid West was ranked 281st out of 291 regions across Australia for access to university education and as a result, the GUC was established. Despite recent improvements, the Mid West still ranks in the bottom 10 per cent for university participation in the country.

The following points outline the World Bank's view on the most promising directions for the development/evolution of tertiary education. These concepts can be equally applied to educational development in regional Western Australia as it could be to education in the developing world:

- Increasing institutional diversification;
- Strengthening science and technology research and development capacity;
- Improving the quality and relevance of tertiary education;
- Promoting greater equity mechanisms to assist disadvantaged students;
- Establishing sustainable financing systems to encourage responsiveness and flexibility;
- Strengthening management capacities; and
- Enhancing and expanding Information and Communications Technology (ICT) capacity to reduce the digital divide.

Well established partnerships between schools, GUC, Durack and industry bodies (such as the Geraldton Iron Ore Alliance) exist and these enhance the education and training outcomes in the Mid West. A significant number of the Mid West schools utilise Durack for their Vocational Education and Training (VET) delivery, which is the major provider of VET in the Mid West. Durack has three main campuses with the largest located in Geraldton. Other campuses are located on the coast in Carnarvon and Exmouth in the Gascoyne. The Wiluna Campus is close to completion.

Durack is a key partner in the recently developed Mid West Workforce Development Plan. The region's economic growth will provide both Aboriginal and non Aboriginal people opportunities to engage and gain benefit. However, to maximise the opportunity, this must be linked to improving skills through training across the Mid West.

Trade Training Centres are an initiative of the Australian Government to combat rising skill shortages in Australia and the centres can only be established in industry areas that are on the National Skills Needs List and deemed to be a shortage in the local region. Durack is currently developing a proposal to establish the \$9 million Centre for Resources Sector Workforce Training in the Technology Park near the Geraldton Airport. The Shire of Morawa is also endeavouring to get a similar project in its sub region. These training facilities would directly benefit the development of the resources industry and construction projects, immediately alleviating the loss of population to train in Perth.



University education is offered in a range of undergraduate courses through the GUC, including Bachelor of Education (Early Childhood), Bachelor of Education (Primary), Bachelor of Science (Nursing) and bridging courses to gain entrance into other university courses are also offered. Future course delivery in the fields of journalism, business and engineering are currently being considered. The GUC offers a model of tertiary education that is unique in regional Australia. It is neither a university nor is it a campus of a university but a non profit, incorporated body that supports students and delivers university courses in Geraldton on behalf of a range of universities. Overseen by a community based Board, GUC's income is derived largely by delivering courses for an expanding range of universities from across Australia. However, additional funding to support GUC reaching its potential is required through Federal and State government and fund raising foundations.

- GUC has the capacity to significantly advance university access in the region through:
- Offering an increased range of courses and institutional diversity;
- Developing partnerships with other universities;
- Enhancing post graduate opportunities;
- Establishing an accommodation village for students of Durack, GUC and the Health Department to assist all students from out of town with a well supported, safe and affordable accommodation option; and
- Collocating with a proposed Renewable Energy Centre development to decentralise research on renewable energy systems.

Preventing Skills Shortages

Western Australia is the home to \$93 billion worth of advanced major projects – representing 82 per cent of all advanced projects in Australia. This level of investment and resource development, and the ageing of the population make it essential that steps are taken to minimise projected labour and skills shortages. A number of commentators, including the Western Australian Chamber of Commerce and Industry (CCI), are already predicting a major shortfall in labour supply in the medium term, if the state economy grows as expected. In April 2010, the CCI estimated that based on current population trends, the State labour force could fall 150,000 workers short by 2017 if there was not a significant increase in the level of migration into Western Australia.

Historically, Western Australia has mitigated the effects of skill shortages by being a strong participant in the employer nominated skilled migration schemes. The use of the Federal migration program will again be called upon to help the State cope with the increased labour demand. However, the added pressure this migration places on the State's physical, social and natural resources will need to be considered when determining the level of migration allowed. Further, the types of skills which form the basis of migration eligibility will need to be carefully selected to maximise labour availability without impacting on job opportunities for local labour.

QUICK FACTS & STATS

- The State's mining industry currently directly employs close to 57,600 people ranking it as the tenth largest employer in Western Australia.
- In July 2010 Western Australia had the lowest unemployment rate of any State at 4.6% - Mid West/ Gascoyne (5.9%); national average (5.3%).
- Employment participation rates for Western Australia were higher than the national average (68% compared to 65%).



Outcome 8:

Positive Outcomes for Aboriginal People

Aboriginal people comprise 10.6% of the Mid West population (ABS 2006), however, conventional census methods tend to lead to underestimates of Aboriginal populations. Aboriginal residents of the Mid West represent the third highest regional Aboriginal population in the State. Based on ABS and other data, Aboriginal people in the Mid West and Gascoyne tend to be underrepresented in terms of labour market participation, education and home ownership when compared to Aboriginal people state wide. Data for Geraldton Aboriginal residents is very close to state wide figures, whereas data for the Murchison residents showed them doing poorly on most measures. Measures taken to increase uptake of education, training and employment programs will translate into improved outcomes for Aboriginal people.

Promising signs of collaborative interagency approaches to regional issues have been shown through the development of regional strategies across a number of portfolios. Strong links have been developed with industry to gain better outcomes in employment and training, for example the Mid West Aboriginal Economic Development and Industry Partnership (MWAEDIP) and Regional Aboriginal Employment Strategy. The MWDC has supported MWAEDIP for several years and recently the Minister for Energy; Training and Workforce Development; Indigenous Affairs launched the MWAEDIP. It is expected that the centre will link Aboriginal jobseekers with employment and training opportunities, while also playing a key role to put in place solutions to overcome barriers to employment.

Durack undertakes specialised training in a number of Murchison centres and the construction of the Wiluna Campus is an important development for Durack servicing the Murchison.

The Mid West Indigenous Arts Industry Strategy prepared by MWDC has led to the development of successful cultural initiatives (eg Wirnda Barnda Indigenous Art Centre), which have social and economic benefits to the region. Aboriginal art and tourism product is recognised in Western Australia tourism surveys as an important tourism priority.

Education initiatives such as the Mid West Football Academy with linkages to Durack and business groups, have seen this model recognised with training awards. The Mid West Netball Academy and Follow the Dream programs also both aim to increase attainment and retention of Aboriginal students. The Bidi Bidi Early Childhood initiative in Mount Magnet is a positive strategy for Aboriginal preschool children (0-4 years).

QUICK FACTS & STATS

- In the Murchison, three of every 100 Aboriginal children are in care.
- Aboriginal people are less likely to have completed year 11 and 12 (19% - compared to Non Aboriginal (52%), Certificate III or higher (8% compared to 38%).
- The Aboriginal unemployment rate is six times higher than for non Aboriginal people.
- Aboriginal health outcomes are worse than for non Aboriginal people in the Mid West, and in some aspects (eg sexually transmitted infections) are also worse than Aboriginal people elsewhere in the State.
- In the Murchison, the average number of people living in households is 4.0 compared to non Aboriginal households at 2.1.
- The Average number per bedroom is 1.5 (Non Aboriginal 1.1).
- 65% live in rental (Non Aboriginal 46%) accommodation.
- 31 % of Aboriginal people live in overcrowded accommodation (i.e. 1.5 per room).
- Independent home ownership or rental is significantly lower than the non Aboriginal population - 52 % (Department of Housing) (Non Aboriginal 18%).
- Aboriginal people are overrepresented in the criminal justice system – 24% of inmates are Aboriginal people (who represent only 2.5% of the population).
- In Western Australia, an Aboriginal person is 21 times more likely to be imprisoned than a non Aboriginal member of the community.



Outcome 9:

Improved Regional Infrastructure to Facilitate Coastal and Inland Development

The Mid West is a large geographical area with widespread population centres. When considering the future of the Mid West, it is imperative to appreciate that the region's economy is predominantly based around the export of commodities.

Adequate and timely investment in infrastructure, particularly transport systems, is key to ongoing regional development. A recent Going for Growth Report (OECD 2009) found investment in energy, water, transport and telecommunications can boost long term productivity and output to a greater extent than other types of physical investment. In addition to the capital required to provide this infrastructure, there is a significant investment in planning and securing land in order to establish adequate and practical corridors for the provision of transport, energy and utilities infrastructure.

The Geraldton Port has undergone significant infrastructure upgrades and during 2008/09 total trade increased to 7.6 million tonnes (a 46% increase). This reflects the dramatic increase in trade compared with three years ago and a 14% or (949,527 tonne) increase over the previous reporting period.

The leading contributor to this trade performance was the export of 1.93 million tonnes of grain compared with just 613,000 tonnes in 2007/08. Iron ore exports during the reporting period totalled 4.2 million tonnes. Other major trades include mineral sands, concentrates, fuel and general cargo.

China is Geraldton Port's major export destination with a total of 70% of all exports delivered to this market. Other Asian markets receive a further 16% and the Middle East, Europe and the USA are each the destination for between 3-4% of exports. There is potential for the Port to diversify into container shipping and preliminary assessments are now being undertaken.

Oakajee Port and Rail (OPR) have the right to build a new deepwater port at Oakajee with a heavy gauge rail link to the resources of the hinterland, with an initial focus on the export of iron ore. The State and Federal Governments have committed a total of \$678 million towards the common user infrastructure of the port. The State Government recently extended the deadline for OPR to complete its Bankable Feasibility Study (BFS) to the end of 2011. At this time OPR will need to have secured contracts with foundation customers, reached agreement with the State Government on the construction and operation of the infrastructure, and made a commitment to proceed with the development. All going well, iron ore exports out of Oakajee could begin in early 2015.

LandCorp has now released for comment a draft Structure Plan for the Oakajee Industrial Estate, which lies adjacent to the proposed Oakajee deep water port. While serviced industrial land is still available at Narngulu, 10kms SE of Geraldton, the main focus will be on simple processing and storage/transport related functions. Major urban expansion will exert pressure on major industry to locate at an alternative site, namely Oakajee. The Oakajee Port Master Plan is expected to be released for public comment in the near future.



Road transport

The Mid West road network faces a growing task as the diversity and volume of mining and agricultural product steadily increase. The network must continue to meet pressure for transport efficiency gains as well as satisfy increasing community interest in safety, environmental and social issues, and supporting tourism.

Road Transport is important for inward and outward movement of many products and goods as well as providing critical connections between communities and facilitating service delivery (eg the Meekatharra-Wiluna Road). The large distances that the region's mineral deposits sit from exporting facilities represent a great challenge, particularly in the context of current and potential transport requirements of industry.

Road haulage of iron ore, which is currently in excess of 7 million tonnes per annum in the Mid West Region and is about to increase by approximately 50%, is viewed as a serious issue by local groups in the Mid West. It is widely accepted that the development of an effective rail network is pivotal to the expansion of industry, as well as the broader region.

Severe pressure on the road network in the region will be at peak level during the construction phase of major projects. The mix of heavy and light vehicular traffic including caravans (especially during the wildflower season) and school buses is a potentially dangerous one on roads that are not built to cater for those functions. The Wubin-Mullewa Road is a case in point. Ongoing demands on this key infrastructure will warrant the need for significant investment in maintenance and upgrades.

The recent survey of infrastructure by Engineers Australia stated that while there had been significant capital expenditure on State and local roads, road capacity expansions have not kept pace with the growth in both freight and passenger demand. Maintenance and renewal expenditure is inadequate to maintain the quality of the existing State roads. Local roads and bridges have deteriorated due to insufficient maintenance and renewal expenditure. Greater effort is needed to reduce road demand and shift road usage to rail freight, public transport and cycling/walking. Bridges are also highlighted as an area for investment. Road safety is highlighted with Western Australia not following the national trend of long term decreases in crash, injury and fatality statistics.

Of the region's strategically important east west links, the upgrade and sealing of the Meekatharra to Wiluna section of the Goldfields Highway is a priority which could be achieved in concert with, or as part of, the PortLink project. Other road priorities include bypasses around Geraldton, Northampton and Mullewa.

Rail

Rail is an increasingly important freight transport mode for mining and grain produce. Significant upgrades are planned to allow better access for southern miners around the Perenjori and Morawa area. The development and implementation of a strategic rail network will assist to alleviate the pressure on the road network.

Planned rail infrastructure includes a heavy gauge line to Crosslands Resources' Jack Hills Expansion Project and Sinosteel Midwest Corporation's Weld Range project, as well as a dual gauge link to Karara Mining's Karara Iron Ore Project. Once operational, the port and rail project is expected to employ approximately 250 personnel, split between port and rail, with the majority based throughout the Mid West region.

The rail to Karara could be further extended to service other proposed projects to the East, such as Cashmere Iron Ltd's Cashmere Downs iron project. It is then only 150kms to connect to the Leonora-Kalgoorlie standard gauge rail link providing an effective standard gauge link between Oakajee, Kalgoorlie, Esperance, Kwinana and the Eastern States. This is a key component of the proposed PortLink project. Ideally, the rail corridor should be of sufficient width to accommodate other infrastructure including road, power, water and telecommunications. There are also potential links with the Pilbara and Port Hedland.

WestNet Rail operates the 5100 km of standard, narrow and dual gauge rail network in the South West of Western Australia and is currently under a 49 year lease with the State Government. They provide track access to various rail rolling stock, operators, including the Australian Railroad Group and are responsible for maintaining the track infrastructure, signalling, level crossings and train control functions.

Inland areas would benefit from the National Freight Network concept, which suggests:

- The provision of an integrated state wide national standard gauge logistic network;
- Connecting all the major west coast industry precincts and ports via a standard gauge railway;
- the development of the Kalgoorlie inland freight internodal logistics hub – PortLink project;
- the development of Oakajee as a significant industrial and logistics hub providing connections to the Indian Ocean rim economies;
- a strategic logistical network to enable a national defence strategy for the emergency and rapid mobilisation of forces to protect Australian's western and north western coast;
- the 'opening' and 'access' to the central resource provinces of Western Australia for resource (and potentially agricultural and community) development;
- a framework for the diversification of Western Australia's logistics network, which suffers from a concentration and over reliance on Fremantle/ Cockburn as the sole international logistics nodes; and
- the decentralisation of development and industry to regional areas.



Water

The main water uses (in order of consumption) are agriculture, minerals and energy, households, commerce and industry and public open space. Although water reserves are adequate for the region's current demand, future population growth and the dependence of the agricultural and mining sectors on water availability, will only increase the competition for this limited resource. The Chamber of Minerals and Energy of Western Australia predicts that total water use in the Mid West will increase 3.5% per annum totalling 25% between 2009 and 2015 (WA State Growth Outlook April 2011).

Combined with the impacts of climate change, there is a need for regional water planning which can inform future decision making on water allocation on a more strategic level.

The Water Corporation operates water schemes at Geraldton, Kalbarri, Northampton, Horrocks, Nabawa, Yuna, Mullewa, Yalgoo, Mount Magnet, Cue, Meekatharra, Wiluna, Sandstone, Mingenew, Morawa, Perenjori, Carnamah, Coorow, Three Springs, Eneabba, Leeman, Dongara/Port Denison and Green Head. The area between and including the City of Geraldton-Greenough and the towns of Mullewa and Dongara/Port Denison are serviced by an integrated scheme from the Allanooka Bore field. Reports on the sustainable allocation of water have been released for the Jurien and Arrowsmith resources.

There is some concern, particularly in the Murchison, regarding the security, reliability and quality of water supplies to some communities. Ageing water reticulation infrastructure in towns is perceived to be the cause of pressure loss and low efficiency. However, water pipes have a long economic life and the bulk of the assets in the Murchison have not yet reached mid-life. Additionally, the Water Corporation reports very few bursts in this area.

All water that is supplied by scheme infrastructure must meet the Department of Health's specifications for quality. Poor water aesthetics (taste and hardness) is an unavoidable characteristic of the Murchison's geology and can only be improved by significant investment in water treatment. Energy intensive reverse osmosis treatment plants are one option. Exploration drilling to increase the supply of water would then be necessary to compensate for the waste that would be generated by the desalination process. New bores were commissioned to offset wastage from the High Efficiency Reverse Osmosis and the Electro Dialysis Reversal plants at Yalgoo and Wiluna respectively.

Other recent developments include the connection of Northampton to the Geraldton town water supply scheme.

MWDC is working with the DoW to develop a Mid West Water Supply Plan. This Plan, the first of its kind in WA, will provide definitive advice on the supply and gaps and will inform future decision making on water supply and allocation.

Energy

Reliable, adequate and affordable energy is critical to the State's ability to grow, attract investment, create employment and sustain living standards. It underpins potential new developments such as the Oakajee Port and the growth of the energy intensive magnetite industry. There are a number of immediate challenges with respect to power provision in the Mid West.

The Mid West has a range of available energy resources including oil, gas, underground coal gasification, coal and uranium, as well as renewable energy sources such as wind, solar, geothermal, biomass and wave energy. These all have potential to integrate into the energy mix. The critical weak point is the transmission network connecting loads and generation.

The network in the North Country Region is a 132 kV network extending 400 km from the northern outskirts of Perth to north of Geraldton, which is the main load centre in the region. The existing load for the upper Muchea grid (the Mid West section of the SWIS) is close to the system capacity of 155 MW and the underlying load growth could see a voltage stability constraint in the Geraldton area from 2012.

The length of the transmission lines in this network and the purposes for which it was initially designed mean that it is technically weak and has limited capacity to supply additional load. The network characteristics and their relationship with the rest of the SWIS mean that capacity to connect generators to this network is also limited. A protection upgrade is proposed between Mungarra and Geraldton to relieve this constraint. As of 2015/16 the underlying load growth, which does not include the connection of new block loads, will result in the transmission lines having reached their thermal capacity, affecting all substations located north of Eneabba and Muchea. As load continues to grow, additional thermal constraints on the transmission lines connecting Geraldton, as well as further voltage stability issues, will arise.

Mid West Energy Stage 1 comprises the construction of the lines from Pinjar to Eneabba (Carnamah) with subsequent connections to Karara and Asia Iron mining projects east of Perenjori. The proposed Mid West Energy Stage 2 is the construction of lines from Eneabba to Oakajee (159 km) but this is yet to be funded. It is identified as a key priority for Regional Development Australia Mid West and has received State Government endorsement for funding through the Federal Infrastructure Australia program.

The 330 kV transmission line built for Mid West Energy Stage 1 and 2 projects would provide the necessary backbone to cater for load growth, provide stability to the SWIS and facilitate energy (including renewable energy) generation in the Mid West. This would reduce the magnitude of transmission losses, provide increased stability to a fragile transmission network, assist in diversifying energy generation sources and infrastructure types, buffer the State against an over reliance on gas and coal, and contribute to the State meeting its renewable energy targets.

Renewables

By 2008/09, 3.1% of all electricity consumed in Western Australia was produced by renewable sources. In Western Australia, the vast majority of renewable energy comes from wind, followed by hydro and bio energy. More than half of the wind farm contribution comes from just two wind farms – Walkaway (90 MW capacity, owned by Alinta) and Emu Downs in the Wheatbelt (80 MW, owned by Griffin Energy and Stanwell).

While the North Country region is recognised as being a prospective major contributor to renewable generation, there are constraints within the network (as well as within the broader electricity system) that limit the ability of new windfarms to connect in this region. Future renewable energy projects will only be viable if they can supply power to the SWIS, thus making the construction of the 330 kV line from Perth to Moonyoonooka/Oakajee critical.

The proposed Oakajee port development (25 km north of Geraldton) would require an initial electrical supply to commence operations in 2014. The port has been located to facilitate the development of a heavy industrial area in its vicinity. This would initially be a service centre for the mining sector, but would also offer opportunities for mineral processing, manufacturing and heavy construction, transport, warehousing and commercial businesses.

Gas and electricity

Western Australia has the most energy and gas dependent economy in Australia in the least competitive gas markets in the country with what is essentially a duopoly of power supply. There is strategic weakness in the State's reliance on the Dampier to Bunbury Natural Gas Pipeline and coal fired power from Collie. The 2008 North West Shelf Joint Venture and Varanus Island incidents highlighted challenges to supply. Reliability of supply depends on having reliable infrastructure assets, as well as diversity of supply and a significant expansion in the number of domestic supply sources. Given the dependence on just two supply sources, any outage at one or both domestic gas plants will have profound impacts on the State (DomGas Submission State Energy Initiative 2010). In this respect, the Mid West is well placed to become a net energy exporter and thereby assist to diversify the State's over reliance on a few key power infrastructure links.

Murchison

Some towns in the Murchison sub region also have power supply issues because the gas or diesel fired generators are near load capacity. These islanded generations are unable to benefit from interconnected systems transmission and strategies to deal with the currently load demands are required. Local solutions such as solar photovoltaic generation on civic buildings or within the community may play an important role.

MWDC is working with the Office of Energy to develop a Mid West Energy Plan that will inform future policy and investment into power infrastructure in the Mid West.

Waste Management and Recycling

With growing populations and an increasing awareness of the issues of waste management, local governments in the Mid West are taking a new approach to waste. Gone are the days of landfill being the one size fits all means of waste disposal with attention to detail being the nature of modern waste management. Through strategic education campaigns and new facilities, local government is now able to more efficiently deal with domestic and industrial waste by adopting an integrated resources recovery and waste management rather than a rubbish dump mentality.



Separating recyclables (paper, plastics, glass and metals), green waste for mulching and reuse in urban gardens, reprocessing building materials and minimising the volume sent to landfill cells is the modern approach. The development of transfer stations and the regional approach to waste management will provide the economies of scale that may enable the sustainable development of better waste strategies in what is a business with slim economic margins. There is potential for generation of energy from methane capture from landfill given sufficient capture and pipeline infrastructure.

QUICK FACTS & STATS

Port Volume:

- Total trade has increased 14% or 949,527 tonne since 2008/09; and 46% to 7.6 million tonnes since 2005/06.
- Grain 2008/09 - 1.93 million tonnes up from 613,000 tonnes in 2007/08.
- Iron ore exports 2008/09 - 4.2 million tonnes.
- Other major export trades include mineral sands, concentrates, fuel and general cargo.
- Geraldton Port can diversify into container shipping

Shipping Destinations:

- China 70%.
- Other Asian markets 16%
- Middle East 3-4%
- Europe and the USA 3-4%
- USA 3-4%

Energy

- Natural gas supplies 60% of State's primary energy demands.
- Natural gas fuels 70% of the SWIS electricity generation.
- Water
- By 2030 future yields of surface water are likely to be lower than today.
- 2030 water demand (consumptive) is expected to increase by 35% with a range of increase between 10-57% depending on population and economic growth factors.
- Under continued dry climate and high demand scenarios there will be a gap between demand and supply.

Outcome 10:

Prosperous and Diverse Primary Industries

The Mid West region supports a diversity of agricultural and horticultural crops, grazing, aquaculture and commercial fishing. The higher rainfall near the coast supports cereal cropping and animal grazing while inland areas support low intensity animal grazing (predominantly sheep and cattle) through the pastoral industries.

The Mid West produces one fifth of Western Australia's grain harvest. There are several issues that could impact the Mid West's agriculture, including climate change, fragmentation of the rural land base and the coastal shift of the Mid West's population. However, the region's farmers are trying to diversify; stone fruit, grapes and olive production for domestic consumption, and emu and ostrich targeting the growing overseas game meat markets of Asia, US and Europe. There is the potential for value adding to all industry sectors including the minerals sector.

Due to the lengthy coastline and diversity of commercial species (WRL, scallops, prawns, demersal finfish etc), fishing is an integral industry for the Mid West. It represents roughly 35% of the State's total catch value, making the Mid West the highest value fishing industry in Western Australia. The value of the fishing industry in Mid West of \$99.6 million is significant, representing just over one third of the State's total. The WRL fishery represents the majority of the Mid West fishing industry gross total. The State Government recently announced that a new individual quota system would be introduced to improve the sustainability of the WRL fishery by managing the total catch. There are other challenges to the wild fisheries in regards to exchange rates, world economic conditions plus the increasing competition from offshore aquaculture.

The aquaculture industry has continued to develop in the Mid West and now includes freshwater production of finfish, marron and yabbies and marine production of finfish and pearl oysters. Major constraints to development of the sector include a lack of suitable sites, real or perceived conflicts with other users, environmental concerns and difficulty sourcing investment capital in the wake of the GFC. In 2007/08 the value of seafood imports exceeded exports for the first time in the modern era and this shortfall in wild seafood catch is likely to grow, offering opportunities in aquaculture.

QUICK FACTS & STATS

(RDL/MWDC - Mid West: a region in profile 2011)

- In 2008/09 agricultural commodities were valued at \$871 million.
- 947 agriculture operations in the region covering 27.4 million hectares.
- Wheat and other Grains - \$760 million.
- Livestock (sheep, cattle, pigs and goats) - \$81 million.
- Wool and other products - \$31 million.
- Employment – Agriculture and Fishing employs 12.5% of the region's workforce.



Outcome 11:

Diversified and Enhanced Minerals and Energy Industries

Mining is the highest dollar value industry in the Mid West, valued at \$2.5 billion in 2009/10 and employs 14% of the region's workers. The relative importance of the Mid West in terms of mining has declined in recent years due to major expansions in the Pilbara and Goldfields area. However, over the last five years there has been a resurgence of mining activity with three new iron ore projects exporting through Geraldton. Iron ore is currently the main driver of the region's mining resource growth. However, infrastructure needs such as rail, power and water constrains future development and expansion of the industry and future projects.

A wide range of mineral resources are available within the Mid West region with mining contributing 50% of the region's gross value of production. Gold is the highest valued mineral followed by iron ore, cobalt, talc, nickel, copper, lead and zinc, heavy mineral sands and chromite, which make up the majority of the mining production as of 2009/10. Although gold is still the highest valued mineral, iron ore is driving the growth and investment within the Mid West region. Other sectors with potential include natural gas and oil reserves uranium, silver, platinum and vanadium. Smaller mining industries include lime sands, limestone, attapulgite, various gemstones and red oxide as well as extractive activities such as sand, gravel and building stone.



Currently there are \$19 billion in projects planned or under development in the Mid West. Forecast iron ore exports of 60mmta will generate State royalties in excess of \$750 million (spot price \$165t and rate of 7.5%). An independent study by Economic Consulting Services (2007) estimated the following potential benefits from the expanding Mid West iron ore industry a 25-year period:

- 1,360 jobs a year during construction;
- 4,254 direct jobs a year for a conservatively estimated 25-year operational period;
- a total of 12,000-plus direct and indirect jobs a year in Western Australia from the increased, economic activity;
- an addition of \$1.5 billion a year to Gross State Product (the overall measure of Western Australia's economy); and
- about \$7 billion in taxes and duties to the Australian Government and around \$3.5 billion in royalties and other payments to the State Government.

There are challenges in developing a new industry (iron ore) that is geographically dispersed, however, several junior mining companies have developed deposits in the Mid West. Initial Stage 1 projects (eg short term hematite projects) will provide a cash flow and use existing infrastructure. For further expansion, particularly in magnetite, there is a need for new 'greenfield' infrastructure at considerable capital expenditure. Another challenge is that projects have different and changing timeframes and synchronising mine project schedules with new infrastructure development often requires alignment of the 'partners' business cases. Similarly, the timely provision of socioeconomic infrastructure is the means to maximise the opportunity for the Mid West communities.

QUICK FACTS & STATS (RDL/MWDC - Mid West: a region in profile 2011)

- In mid 2010, there were 17 active resource projects, another 21 in development by 18 different companies.
- Iron Ore is the focus of nine projects.
- Gindalbie Metals Karara project, east of Morawa, is valued at \$1.8 billion.
- Minerals production value in 2007/08 was \$2.25 billion growing to \$2.5 billion (est) in 2009/10.
- Energy (Crude Oil Natural Gas) production value \$52.5M in 2009/10.
- 14% of the Mid West labour market is in mining.
- Gold - \$816 million.
- Talc, Nickel and Cobalt - \$432 million.
- Iron ore - \$415 million.
- Mineral sands and chromite - \$338 million.

Outcome 12:

Continued Expansion of the Tourism Industry.

Tourism has become a growth industry and a significant employer which will become increasingly important in the future. During the period from 2007 to 2009, there was an average of 440,500 visitors per year to the Mid West region, with around 48% being tourists. The largest source markets for the Mid West were Western Australians, with 78% of the visitors being from intrastate. Only 10% were interstate and 11% were international. Although the majority of visitors were from intrastate, they only stayed an average length of four nights, compared to international travellers who stayed 6.5 nights on average.

The Mid West region is covered by Tourism WA's Australia's Coral Coast and Australia's Golden Outback. On average, between 2007 and 2009, 48% of visitors to the Mid West did so for the purpose of holiday or leisure Australia's Coral Coast. The climate, white sandy beaches and laid back lifestyle are what attract an annual average of 188,000 visitors. There is an increasing opportunity to cater to the influx of leisure seeking tourists to the areas surrounding Geraldton, Dongara and Port Denison.

The main target market the region caters to is affordable family holidays or backpackers. There is a persistent undersupply in the market during peak times and a growing shift to cater towards more 'high end' tourists seeking more luxurious accommodation and tailored tourism products. Tourism offers great diversity of activity based around history, culture, water sports, fishing, wildflowers and magnificent landscapes with an opportunity to develop Aboriginal tourism product. The Abrolhos Islands 70km off the coast of Geraldton offer a unique tourism experience and provide an incredible range of marine life, with excellent opportunities for diving and snorkelling. The Islands are home to the world's most southern coral reefs, are a unique and potentially iconic visitor attraction. Plans to develop further tourism related activities, including a low impact, high value resort are progressing.

The 350 km Indian Ocean Drive was an initiative by the Western Australian Government to provide a scenic alternative route away from the heavy vehicle traffic on the Brand Highway. The road extends from the northern suburbs of Perth and connects to the Brand Highway just north of Arrowsmith and will stimulate coastal towns and facilitate tourism experiences along this route. While the new section of the road is now completed, the older northern sections will require further upgrading.

Nature based and cultural tourism underpins the tourism sector in the Mid West. The Mid West is renowned for its Wildflower season, drawing many visitors between July and October each year. The mining and pastoral heritage in the Murchison is an attraction for many caravan based Australian travellers. Improving facilities and implementing strategies to further develop and promote the Gascoyne Murchison Outback Pathways will benefit the Murchison.

Assisting Geraldton to realise its tourism potential has been the completion of the six year Geraldton foreshore redevelopment, the Central Business District revitalisation project, and finalising and implementing the Geraldton-Greenough Tourism Strategy.

Skywest Airlines operate daily to Geraldton, although catering largely for business related visitors. A poor taxi service and a lack of other public transport inhibit the ability for visitors to move around the Mid West. Challenges exist in the cost of air travel and the present appreciation of the Australian dollar. For example, the average return flight from Perth to Geraldton is around \$560, compared to the average domestic flights from Perth to Sydney (\$600 return) and Melbourne (\$550 return), while international flights to Bali compete strongly at \$670 return. There are also plans for direct flights from Geraldton to Bali and Melbourne.

QUICK FACTS & STATS (RDL/MWDC - Mid West: a region in profile 2011)

- 440,500 Tourists visited the Mid West in 2009.
- Tourism value in 2009 was \$230 million.
- Domestic Tourism value in 2009 was \$197 million or 4% of Western Australia's regional production.
- International Tourism value in 2009 was \$33 million.



Outcome 13:

Establishment of New and Innovative Industries and Services

The Mid West economy has a heavy reliance on primary production commodity exports and is subsequently exposed to market fluctuations. Alternative projects aimed at diversifying the region's economic reliance provide an opportunity to reduce the risks that these fluctuations present. Diversified industries in the Mid West include:

- Supporting the establishment of the MRO and its associated radio astronomy initiatives, including the ASKAP and International SKA projects;
- Developing and implementing strategies to support innovation, value adding and structural adjustment in the agricultural and rock lobster industry sectors;
- The further development of SMART Mid West including the establishment of an Information Technology (IT) industry;
- Investigating bundling of utility services, for more efficient client supply and recycling of water, energy and waste; and
- An energy network that integrates a smart grid with smart meters in homes to allow for greater control of power consumption and reduced emissions eg Newcastle.

The SMART Economy

The Information Communication Technology (ICT) industry within the region (also known as the 'knowledge economy') is an emerging sector of the Mid West economy. The Square Kilometre Array Pathfinder Project (ASKAP), Geraldton Airport Technology Park and the development of the high speed broadband in the region continue to drive the ICT economy within the region.

Unless the SKA bid is successful for the region a Mid West ICT industry is unlikely to have major standalone economic impact before 2015, compared to other areas of activity. Its core development will be as a strategic enabler for new services and service delivery models for a variety of industries.

A diverse economic base should be implemented within the Mid West to avoid overdependence on the shifting mining sector. In addition, the development of ICT within the region can be partnered with the growing mining and industrial activity to help with communication links. According to industry commentary this would lead to increased activity in areas such as mining logistics, operations and data analysis.

The benefits from the NBN connection with Perth will assist in the development of key online services to the Mid West including:

- E Medicine, E Education and E Services;
- Some Community Resource Centres (formerly regional Telecentres);
- IT information and logistics services to support local sustainable industries (eg GPS for agriculture management, logistics, remote access to non coastal LGAs); and
- Information communication services to mining, agriculture and manufacturing sectors.



Manufacturing

The manufacturing industry has not been surveyed since 2001/02 but at that point in time, the Mid West region did have a significant manufacturing sector based on supplying product to the agriculture, fishing and mining industries. The key industry segments for growth of a diverse manufacturing landscape include:

- Renewable energy;
- Mining industry;
- Port, road and rail support services; and
- Value adding to fisheries, aquaculture, agriculture and horticulture product.

The report on Future Energy Efficiency by the Federal Government (Oct 2010) recommends a national increase in energy efficiency by 30% over the next decade. It suggests that target could be reached with measures like cleaner cars and greener buildings. The report also states that the Government's 5% target to reduce greenhouse gas emissions by 2020 cannot be achieved through energy efficiency measures alone. There is potential for innovative industries or research facilities such as the development of a Climate Research Centre. This centre could develop research projects focussing on key areas of primary industry and natural resource management sustainability.

According to HSBC, there is a multi trillion dollar industry that will develop, regardless of policies or international accords on climate change, and its influence will cascade through the international economy. The impacts of climate change will need to be considered in future planning for the Mid West.

QUICK FACTS & STATS

- Manufacturing was valued at \$286 million (2006/07) with 179 business locations.
- ASKAP is a \$140 million project jointly funded by CSIRO and Federal and State Governments. It is currently being established.
- The SKA project is a 1.5 billion Euro international project, centred in the Murchison. A site decision will be made in 2012.



Outcome 14

A Valued and Protected Environment

Within the Mid West there are eight different biogeographic regions (Interim Biogeographic Regionalisation for Australia) with specific natural conservation values. These locations are generally well identified, however, measures to ensure conservation are often at odds with existing land uses and future developments such as mining and infrastructure construction. Land degradation through clearing, grazing and erosion is evident across much of the Mid West landscape. although there are numerous National Parks (Kalbarri National Park), Conservation Parks (Coalseam near Mingenew) and Nature Reserves (Abrolhos Islands) that remain relatively undisturbed.

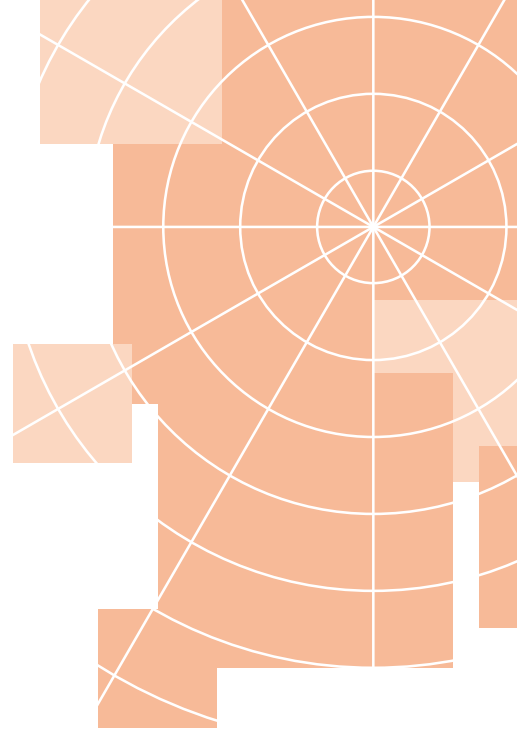
Local governments have indicated coastal management is a key consideration for future planning and human activities (4WD tracks, fires etc) can have serious negative impacts on the local environment. The construction and enhancement of ports, breakwaters and groynes has potential to significantly alter the coastal geomorphology. Some locations require immediate remediation works to arrest the existing damage.

The BIFs have high biodiversity value as well as being highly prospective for minerals, particularly iron ore. It is important that future developments balance economic, environmental and social values.

Due to the geographic location and natural resources of the Mid West region, the area has an abundance of renewable energy sources available. The wind, solar, wave, biomass and geothermal resources are abundant in the Mid West. The region currently has one of the State's largest wind farms (Alinta Wind Farm) and a 10 MW solar farm is also being progressed.

However, despite the scores of renewable energy projects planned, the constraints in the energy transmission system have consistently impeded the ongoing development of a renewable energy industry within the Mid West. The renewable energy projects will only be viable if they can supply power to markets including major industry and markets in Perth and the South West via the main grid, thus making the construction of a 330 kV line from Perth critical.





SECTION 3

FLAGSHIP PROJECTS AND INITIATIVES

“FLAGSHIP” PROJECTS SUMMARY TABLE

Summary (\$ Millions) - Flagship Projects - Total Estimated Costs & Timeframes

Sub Region	YEAR - TOTAL COST (\$M)				Total
	2011/12	2012/13	2013/14	2014/15	
Batavia Coast	26.67	66.87	69.87	332.50	495.91
Murchison	23.00	30.00	28.00	81.50	162.50
North Midlands	23.95	45.75	1.00	115.00	185.70
Regional	12.60	108.60	262.50	227.90	611.60
Total	86.22	251.22	361.37	756.90	1,455.71

Category	YEAR - TOTAL COST (\$M)				Total
	2011/12	2012/13	2013/14	2014/15	
Key Infrastructure & Services	29.62	83.87	48.12	476.50	638.11
Community Development & Town Revitalisation	13.50	19.00	14.00	19.00	65.50
Tourism	1.00	18.00	19.00	10.00	48.00
Maritime	5.30	1.00	11.50	11.50	29.30
Housing & Land Development	-	21.00	21.00	42.00	84.00
Education & Training	7.75	9.50	8.25	2.00	27.50
Health	0.60	75.60	89.50	18.90	184.60
Energy	26.25	21.75	150.00	177.00	375.00
Water & Sewerage	1.50	1.50	-	-	3.00
Business Development	0.70	-	-	-	0.70
Total	86.22	251.22	361.37	756.90	1,455.71

Mid West Investment Plan – Flagship Projects Summary for Regional Projects (projects covering 2 or more sub-regions)

CATEGORY	PROJECTS	Master Plan Ref. No	PROPONENT	LOCAL GOVERNMENT REGION	POTENTIAL MAJOR FUNDING SOURCES	OTHER POTENTIAL FUNDING SOURCES	ESTIMATED COST (\$M)	ESTIMATED TIMEFRAME Years 1-4
Key Infrastructure & Services	Mobile Phone Coverage – Black Spots not expected to be covered by RMCP (34 black spots at \$500k each)	21	Department of Commerce/ Mid West LGA's	All	Dept of Commerce/ Royalties for Regions	LGA's	\$8.0	4
	Sub Total						\$8.00	
Community Development & Town Revitalisation	Town Enhancement & Revitalisation Projects	Numerous	Mid West LGA's	All	LGA's, Dept of Sport & Recreation	Royalties for Regions	\$55.0	1 to 4
	Sub Total						\$55.0	
Housing & Land Development	Housing (social & worker) and Land Development (industrial & residential)	Numerous	Mid West LGA's	All	Private Sector/State Govt/LGA's	Royalties for Regions	\$84.0	2 to 4
	Sub Total						\$84.0	
Health	Aged Care Facilities including independent living units.	402-408, 409-411, 444, 445	Department of Health/ LGA's	Several	Comm. & State Govt	Royalties for Regions	\$39.0	2 to 4
	Health Facilities (replacement facilities, upgrades and expansions)	413, 414, 417, 418, 430	Department of Health	Several	Comm. Govt/ State Govt (Dept of Health)	Royalties for Regions	\$145.6	2/3
Sub Total						\$184.6		
Energy	Mid West Energy Project Stage Two	321	Western Power	Several	Comm. Govt	State Govt	\$280.0	3/4
	Sub Total						\$280.0	
TOTAL						\$611.6		

Mid West Investment Plan – Flagship Projects Summary for the Batavia Coast

CATEGORY	PROJECTS	Master Plan Ref. No	PROPONENT	LOCAL GOVERNMENT REGION	POTENTIAL MAJOR FUNDING SOURCES	OTHER POTENTIAL FUNDING SOURCES	ESTIMATED COST (\$M)	ESTIMATED TIMEFRAME Years 1-4
Key Infrastructure & Services	Geraldton Airport – Stage 1 – Terminal parking & Road Upgrade	2	City of Geraldton Greenough	City of Geraldton Greenough	City of Geraldton Greenough	Comm. Govt/State Govt (Regional Airports Devt Scheme)	\$3.0	1
	Stage 2 – upgrade to allow larger jet services eg runway, instrumentation, master plan	5	City of Geraldton Greenough	City of Geraldton Greenough	City of Geraldton Greenough	Comm. Govt/State Govt (Regional Airports Devt Scheme)	\$40.0	4
	Geraldton North South Road – addressing bypass requests from Dongara, Geraldton and Northampton	85, 67	City of Geraldton Greenough	City of Geraldton Greenough	Main Roads WA	State Govt	\$250.0	4 plus
	East Ogilvie Road	82	Shire of Northampton	Shire of Northampton	Shire of Northampton	Royalties for Regions	\$1.9	1 to 3
	Mullewa Bypass Road	83	Shire of Mullewa	Shire of Mullewa	Main Roads WA	Royalties for Regions	\$8.3	2
	Urban Expansion Package under the "Building Better Regional Cities". Could fund projects such as the northern suburbs sewerage extension; construction of Verita Road (and associated water, sewerage and power mains); and upgrade of key substations.	73	City of Geraldton Greenough	City of Geraldton Greenough	Comm. Govt (matching funding from "Building Better Regional Cities")	Additional leverage potential from private, LGA & State	\$30.0	1 to 3
	Convention Centre/ Queens Park Theatre upgrade	104 & 106	City of Geraldton Greenough	City of Geraldton Greenough	City of Geraldton Greenough	Royalties for Regions (via RDC)	\$10.0	4
	Geraldton Residential College Accommodation Expansion	220	Geraldton Residential College	City of Geraldton Greenough	Royalties for Regions	Geraldton Residential College	\$2.0	1 to 2
	Education, GUC, Health Precinct Accommodation for Staff and Students	216	Dept of Health, Geraldton Universities Centre, Durack Institute, Combined Universities Centre for Rural Health	City of Geraldton Greenough	Comm. Govt, State Govt (Departments of Training & Workforce Devt; Health)	Royalties for Regions	\$22.0	1 to 3
Sub Total							\$367.11	
Community Development & Town Revitalisation	Bundiyarra Centre Stage 1 - Hostel	116,117,119	Bundiyarra Aboriginal Corporation	City of Geraldton Greenough	State & Comm. Govt	Royalties for Regions	\$8.0	2 to 3
	Indigenous Community Radio Network	217	Radio Mama (MAMA)	City of Geraldton Greenough	Comm. Govt	Royalties for Regions	\$1.0	1
Sub Total							\$9.0	
Tourism	Central Greenough Hamlet Upgrade	834	City of Geraldton Greenough	City of Geraldton Greenough	City of Geraldton Greenough	Royalties for Regions (via RDC), National Trust	\$3.0	1
	WA Museum Geraldton HMAS Sydney II Gallery and other elements of master plan	154	WA Museum	City of Geraldton Greenough	WA Museum, Comm. Govt	Royalties for Regions	\$15.0	1 to 4
	Kalbarri Gorges Road Sealing	40	Department of Environment & Conservation	Shire of Northampton	Department of Environment & Conservation	Royalties for Regions (via RDC)	\$30.0	1
Sub Total							\$48.0	
Maritime	Batavia Coast Marina Enhancement	713, 714, 158	City of Geraldton Greenough	City of Geraldton Greenough	State Govt/Dept of Transport	Royalties for Regions, CGG	\$20.0	3/4
	Eastern Breakwater Development	715	City of Geraldton Greenough	City of Geraldton Greenough	State Govt, Geraldton Port/CGG	Royalties for Regions (via RDC)	\$4.3	1
	Coastal Management & Erosion	1001	City of Geraldton Greenough, Shire of Irwin	City of Geraldton Greenough, Shires of Irwin, Carnamah, Coorow, Northampton	Northern Agricultural Catchments Council	Royalties for Regions	\$5.0	1 to 4
Sub Total							\$29.3	
Education & Training	Centre for Excellence in Renewable Energy	219	Geraldton Universities Centre	City of Geraldton Greenough	Comm. Govt, Universities/Private	Royalties for Regions	\$5.0	1 to 4
	GUC Regional Media Research and Training Institute	213	Geraldton Universities Centre	City of Geraldton Greenough	Comm. Govt, State Govt	Royalties for Regions	\$4.5	1/3
	Centre for Resources Worker Training – Engineering, Civil Construction	207	Durack Institute of Technology	City of Geraldton Greenough	Dept of Training & Workforce Development	State Govt	\$13.0	1/2
Sub Total							\$22.5	
Energy	Moonyoonooka to Oakajee 330 kV Power Line (dependent on Oakajee)	311	City of Geraldton Greenough	City of Geraldton Greenough	Comm. Govt	State Govt	\$20.0	3/4
	Sub Total							\$20.0
TOTAL							\$495.9	

Mid West Investment Plan – Flagship Projects Summary for the Murchison

CATEGORY	PROJECTS	Master Plan Ref. No	PROPONENT	LOCAL GOVERNMENT REGION	POTENTIAL MAJOR FUNDING SOURCES	OTHER POTENTIAL FUNDING SOURCES	ESTIMATED COST (\$M)	ESTIMATED TIMEFRAME Year 1-4
Key Infrastructure & Services	Regional Airports	1 to 10	Murchison Shires	Murchison Shires	Regional Airports Devt Scheme, LGA	Comm. & State Govts	\$6.0	1 to 4
	Ballinyoo Bridge Replacement	47	Shire of Murchison	Shire of Murchison	Shire of Murchison	CSIRO	\$5.0	2
	Mullewa Murchison Rd upgrade re SKA /ASKAP	46	Shire of Murchison	Shires of Mullewa & Murchison	Shire of Murchison	CSIRO	\$10.0	1 to 3
	Goldfields Highway (assumes PortLink option C reduces scope of Royalties for Regions funding to 60km)	48	Shires of Wiluna & Meekatharra	Shires of Meekatharra & Wiluna	Main Roads WA	Royalties for Regions, LGA, CLGF, Private Sector/ Comm. Govt	\$100.0	3/4
	Vermin Fencing	58-60	Murchison Shires	Murchison Shires	Royalties for Regions	LGA's	\$9.0	1/2
Sub Total							\$130.0	
Education & Training	Mount Magnet Training Centre	202	Shire of Mt Magnet	Shire of Mt Magnet	Dept of Training & Workforce Development	Royalties for Regions	\$3.0	2/3
Sub Total							\$3.0	
Energy	Murchison Radio-astronomy Observatory Power Project	336	CSIRO	Shire of Murchison	Horizon Power, Royalties for Regions (via RDC)	Comm. Govt/ CSIRO	\$26.5	1/2
Sub Total							\$26.5	
Water & Sewerage	Water Quality - Murchison Towns (option of individual/domestic filtration units to be investigated)	911	Murchison Shires	Several	WaterCorp	State Govt/ Royalties for Regions	\$3.0	1/2
Sub Total							\$3.0	
TOTAL							\$162.5	

Mid West Investment Plan – Flagship Projects Summary for the North Midlands

CATEGORY	PROJECTS	Master Plan Ref. No	PROPONENT	LOCAL GOVERNMENT REGION	POTENTIAL MAJOR FUNDING SOURCES	OTHER POTENTIAL FUNDING SOURCES	ESTIMATED COST (\$M)	ESTIMATED TIMEFRAME Years 1-4
Key Infrastructure & Services	Regional Airports	11 & 12	Shire of Morawa & Perenjori	Shire of Morawa & Perenjori	Regional Airports Devt Scheme , LGA	Comm & State Govts	\$5.0	2
	Wubin Mullewa Road	51	North Midlands LGA's	North Midlands LGA's	Main Roads WA	Royalties for Regions	\$123.0	1 to 4
	North Midlands Highway (Winchester)	52	North Midlands LGA's	North Midlands LGA's	Main Roads WA	Royalties for Regions	\$3.00	1
	Depot Hill/Allanooka Road	57	Shire of Mingenew	Shire of Mingenew	LGA, CLGF, Private	Royalties for Regions	\$2.0	1
Sub Total							\$133.00	
Community Development & Town Revitalisation	Child-care facilities	111	Shire of Morawa & Perenjori	Shires of Morawa & Perenjori	Shires of Morawa & Perenjori	Royalties for Regions	\$1.5	1/2
Sub Total							\$1.5	
Education & Training	Morawa Industry Training Centre to support mining in the region	203	Shire of Morawa	Shire of Morawa	Dept of Training & Workforce Development	Royalties for Regions	\$2.0	2/3
Sub Total							\$2.0	
Energy	Perenjori Morawa Feeder Upgrade	315	Shires of Perenjori & Morawa	Shires of Perenjori & Morawa	Western Power	Royalties for Regions	\$7.0	4
	AST Substation 200MW – provisional subject to clarification	318	Shire of Perenjori	Shire of Perenjori	Private	Comm & State Govts	\$20.0	4
	Morawa Solar Thermal Project - may have implications for 315	305	Shire of Morawa & Perenjori	Shires of Morawa & Perenjori	Private	Royalties for Regions (via RDC)	\$21.5	1/2
Sub Total							\$48.5	
Business Development	Coorow Agribusiness	607	Small Business Development Centre	Shire of Coorow		Royalties for Regions	\$0.7	1
Sub Total							\$0.7	
TOTAL							\$185.7	

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ACRONYMS

ABS – Australian Bureau of Statistics
ASKAP – Australian Square Kilometre Array Pathfinder
AWDC – Aboriginal Workforce Development Centre
BFS – Bankable Feasibility Study
BIF – Banded Iron Formation
CCI – Chamber of Commerce and Industry
CGG – City of Geraldton-Greenough
CLGF – Country Local Government Fund
CME – Chamber of Minerals and Energy of Western Australia Inc.
COAG – Council of Australian Governments
CRC – Community Resource Centre (formerly Telecentres)
CSIRO – Commonwealth Scientific and Industrial Research Organisation
CUCRH – Combined Universities Centre for Rural Health
DBNGP – Dampier Bunbury Natural Gas Pipeline
DEC – Department of Environment and Conservation
DIDO – Drive-in / drive-out
DoP – Department of Planning
DoW – Department of Water
DSD – Department of State Development
Durack – Durack Institute of Technology
ERP – Estimate Resident Population
FESA – Fire and Emergency Services Authority
FIFO – Fly-in / fly-out
GFC – Global Financial Crisis
GIOA – Geraldton Iron Ore Alliance
GPA – Geraldton Port Authority
GRAMS – Geraldton Regional Aboriginal Medical Service
GRP – Gross Regional Product
GUC – Geraldton Universities Centre
ICC – Infrastructure Coordinating Committee
ICT – Information Communications and Technology
IT - Information Technology
LG – Local Government
LGA - Local Government Authority
MRO – Murchison Radio-astronomy Observatory
MRWA – Main Roads Western Australia
MWA – Murchison Widefield Array
MWAADC – Mid West Aboriginal Workforce Development Centre

MWDC – Mid West Development Commission
MWGPN – Mid West GP Network
MWIA – Mid West Infrastructure Analysis
MWIAIS – Mid West Indigenous Arts Industry Strategy
MWIP – Mid West Investment Plan
MWRPC – Mid West Regional Planning Committee
MWRPIF – Mid West Regional Planning and Infrastructure Framework
MWSIG – Mid West Strategic Infrastructure Group
NACC – Northern Agricultural Catchment Council
NBN – National Broadband Network
OIE – Oakajee Industrial Estate
ONIC – Oakajee Narngulu Infrastructure Corridor
OPR – Oakajee Port and Rail
PCYC – Police Citizens Youth Club
RADS – Regional Airport Development Scheme
RDA – Regional Development Australia
RDC – Regional Development Council
RDL – Department of Regional Development and Lands
RFDS – Royal Flying Doctor Service
RFR – Royalties for Regions
SKA – Square Kilometre Array
SMART – Mid West Development Commission’s “SMART Mid West Policy”
SPMP – Separation Point Marine Precinct
SWIS – South West Interconnected System
VET – Vocational Education and Training
WACHS - WA Country Health Service
WAM – Western Australian Museum
WAPC – Western Australian Planning Committee
WRL – Western Rock Lobster



APPENDIX 1: SUB REGIONS OF THE MID WEST

Batavia Coast sub region

- Growing communities within these coastal shires.
- Includes the primary centre of Geraldton and the two town centres of Dongara-Denison and Kalbarri.
- Major tourism experience and amenities due to proximity to the coast. The recent completion of Indian Ocean Drive will increase opportunities.
- The proposed Oakajee deepwater port is located within the Shire of Chapman Valley.
- Contains 84% of the region's population.
- The Batavia Coast is likely to provide the majority of population increases in the Mid West region.
- Potential for FIFO or DIDO workers to have their usual residence in these coastal localities.

City of Geraldton-Greenough

Geraldton is approximately 420 km north of Perth and is the regional centre for the Mid West. It is well placed to accommodate additional growth, both in terms of land supply, human services and essential infrastructure. In 2007 the amalgamation of the former City of Geraldton and Shire of Greenough formed the City of Geraldton-Greenough and now covers an area of 1,798 km². The Shire of Mullewa has agreed to a merger with the City of Geraldton-Greenough to become the City of Greater Geraldton on 1 July 2011.

Key drivers:

- Growth - by 2016 the population is forecast to be between 44,575 (baseline) and 47,517 (economic with multiplier) (Applied Knowledge Consulting 2010). However, depending on marketing and investment it may reach higher levels as it will receive a greater share of the region's population increases due to its strategic location and comparatively high level of services and amenities.
- Major regional city with the fourth largest population in regional Western Australia.
- New projects in mining, infrastructure, business opportunities and affiliated growth.
- The City of Geraldton-Greenough's Sustainable Future City Region Project (2029 and Beyond).

Shire of Chapman Valley

The Shire of Chapman Valley is located immediately north-east of the City of Geraldton-Greenough, 440 km north of Perth. The shire covers an area of 3,965 km² and its seat of government is the small town of Nabawa. The proposed Oakajee industrial estate and deepwater port is located in the shire. Development of Oakajee will directly affect the operational aspects of the shire, as Chapman Valley will be one of the approval authorities responsible for Oakajee.

Industries within the LGA include wheat and sheep agriculture and tourism. Chapman Valley has had several recent investments in the recreation facilities in Nanson and Yuna and the upgrade of Coronation Beach. Telecommunications have been outlined by the shire as a key concern (especially in the out-lying areas of Yuna).

Key drivers:

- Oakajee Project.
- Growing population.
- Growth in lifestyle intra immigration.
- Agriculture.



Shire of Irwin

The Shire of Irwin is located about 50 km south of Geraldton and covers an area of 2,374 km². The major settlement is Dongara/Denison. Key industries of the area include wheat and sheep farming, oil/gas and mineral mining, rock lobster fishing, olive growing and tourism. Increased resource activity and its attractive coastal location may see Dongara become a residential base for FIFO operations in the greater region.

Dongara and Port Denison have identified shortfalls in recreation, tourism accommodation and aged care/housing facilities. There is also major concern with regards to critical infrastructure including the capacity of power supply. This is being addressed by additional three phase power lines, however, any significant increase in population would mean further infrastructure upgrades would be required. The town is also nearing capacity of current scheme water supply so with any population increase this would need to be addressed.

Key drivers:

- Fast growing population (average increase of 3% pa from 2005 to 2010).
- Oil, gas and coal exploration with proposed gas fired power station.
- Strong agriculture and tourism.
- Continued attraction of retirees.



Shire of Northampton

The Shire of Northampton is located about 50 km north of Geraldton and the major settlements are Northampton, Kalbarri, Horrocks and Port Gregory. The shire covers an area of 12,499 km². Wheat and sheep agriculture, tourism, rock lobster fishing and mining are the main industries for Northampton. Additional resource activity in the region will increase pressure on the shire's major coastal settlements and associated infrastructure.

The town of Northampton has a number of heritage sites and is a popular stopover point for tourists travelling through the region. While the population of the Shire has grown steadily over the last five years, Northampton has had a steady population for some time and also has the capacity to accommodate additional growth with large areas of underused zoned land. The town site of Northampton does not have a reticulated sewerage scheme which is a potential impediment to further investment and growth.

The town of Kalbarri has the capacity to accommodate additional growth with areas of undeveloped residential and industrial zoned land. Kalbarri has limited capacity of its current water and power supplies, with upgrades being planned. Innovative renewable power generation has been implemented to supplement the town power. The town has experienced significant and steady growth over a number of years.

The communities of Port Gregory and Horrocks are supported by the tourism and fishing industry. While Horrocks has the potential to expand with undeveloped 'residential' and 'town centre' zoned land, Port Gregory on the other hand is surrounded by unallocated crown land which is subject to native title. The town of Northampton has the community facilities that service these communities.

Key drivers:

- Growth in population (average increase of 1.7% pa from 2005 to 2010).
- Increasing Department of Housing waitlist.
- Mining economic benefits.



Murchison sub region

- Contains 6% of the Mid West's population. Approximately 30% of the Murchison sub region's population are indigenous. NB ABS statistics regarding Aboriginal populations may be understated.
- Despite low population, majority of existing and proposed resource projects occur within Murchison sub region.
- Sub region has been chosen as one of two sites being considered for the location of the 1.5 billion Euro international SKA telescope project.
- Significant social disadvantage. Education and health outcomes are poor but may be hidden in data collected on a regional basis.
- As a result of the ASKAP developments ability to enhance existing Outback Tourism potential.
- Tourism is an important industry for the economic diversification of the sub region.
- The Murchison sub region, in particular Wiluna, is very isolated and this is accentuated by the unsealed condition of the Wiluna-Meekatharra Road.
- Challenge to retain and grow its population share. This is largely dependent on influencing a change in FIFO workforce practices of resource companies combined with attracting residents willing to drive in/ drive out to a mine site.
- Based on historical population trends and continued migration of inland population to coastal areas, it will be challenging for several towns in the Murchison sub region to maintain their current population bases. However, if growth occurs, then with suitable planning there is adequate undeveloped zoned residential land in the sub region to support this.
- These shires all face growth and development challenges but continue to be important inland communities.

Shire of Cue

Cue is located 420 km north-east of Geraldton and covers an area of 13,623 km². Main industries in the area are mining, tourism and pastoralism. Key activities are mining and related services, developing industrial area and an expected increase in tourism.

Mining growth has created planning issues related to land availability for residential and industrial development. Historic mine works and hidden shafts have made a number of lots, some in desirable parts of the town, unsafe for building on.

It is expected the shire will require financial support to fund the development of business and residential land around the townsite.

Key drivers for the shire are:

- Need to secure benefits from mining.
- Reverse population trends.



Shire of Meekatharra

Meekatharra is situated 538 km north-east of Geraldton and covers an area of 100,789 km². The area is a major supply centre for the pastoral and mining area in the Murchison region. There is a fear that many of the existing mines are reaching a phase of deceleration and the expense associated with the ongoing maintenance of their local road system caused by mining may be unsustainable.

A concern for the shire is the expense associated with the ongoing maintenance of their local road system, which was developed to support historically high levels of mining activity.

Key drivers for the area include:

- High jobless rate. Jobless rate was 11.8% as of January 2010.
- Land planning and infrastructure issues.
- Secure more community benefits from surrounding economic activity.
- Decreasing population (average decrease of 1.5% pa from 2005 to 2010).
- High under 50 population.

Shire of Mount Magnet

Mount Magnet is one of the Murchison region's original gold mining towns, with the first find recorded in 1891, and continues to be a significant sub regional hub. It supports both mining and pastoral industries which form the economic base of the Shire of Mount Magnet. The shire covers 13,877 km². The beautiful wildflower blooms seen between July and September attracts many tourists to the town.

Key activities include mining, pastoralism, tourism including cultural tourism and Indigenous art production and sales.

Recent and upcoming projects:

- Recent establishment and development of the Wirnda Barna Indigenous Art Centre.
- Windimurra Vanadium Project – \$296 million (in progress – previously stalled but now has been funded and is expected to be commissioned in mid 2011).

Shire of Murchison

The Shire of Murchison is the only shire in Australia without a town and is located about 260 km north-east of the city of Geraldton and about 550 km north of Perth. The shire covers 41,173 km² and pastoral leases occupy much of this area. The development of the high technology radio astronomy facilities at Boolardy Station is stimulating development in the Murchison settlement. In 2010 Murchison commenced the building a roadhouse with 3 room accommodation facilities.

Key drivers:

- Radio astronomy projects at the Murchison Regional Observatory, including the Murchison Wide Field Array, Australian Square Kilometre Array Pathfinder and if successful, the international SKA project.
- Population has declined by 5% pa from 2005 to 2010 but has now stabilised.
- Tourism.



Shire of Sandstone

The Shire of Sandstone is located about 430 km east of Geraldton and about 740 km north-east of Perth. The shire covers an area of 32,882 km². The major issue confronting the Shire of Sandstone is a shortage of land available for residential and industrial development. The land which would otherwise be used for residential purposes is either currently Crown land or subject to native title claims.

Sandstone's main industries are pastoralism, mining and tourism. Key activities in the region include mining, exploration, and accommodation for exploration contractors.

Key drivers:

- Unemployment 13.8%.
- Stable community required.
- Nickel miner, Western Areas NL and gold producer, Troy Resources NL are accelerating drilling at their Sandstone Joint Venture after a significant deposit of nickel sulphide was discovered.

Shire of Wiluna

The Shire of Wiluna covers an enormous area of some 184,000 km², which is predominantly a mining and pastoral area. The town of Wiluna is the principal centre in the shire, and there are also a number of mining villages and Aboriginal communities. The township of Wiluna is 966 km north-east of Perth and is situated on the edge of the desert at the gateway to the Canning Stock Route and Gunbarrel Highway.

The Shire is currently researching the infrastructure required to support the anticipated growth in mining. Sealing of the Meekatharra Wiluna road would have benefits to the sub regional and regional economy.

Key drivers:

- Strong local FIFO.
- Increasing population of 2.4% was previously decreasing.
- High under 50 population.
- Need to secure benefits from economic activity.
- New mining projects planned or in progress.

Shire of Yalgoo

The Shire of Yalgoo is located approximately 200 km east of Geraldton and 500 km north of Perth. The shire covers an area of 28,215 square km. If the proposed Ferrowest Yalgoo Iron project proceeds, the population impacts on the shire could be significant.

Key activities for the region include Golden Grove (Oxiana), Ferrowest Yalgoo iron project, Extension Hill hematite/magnetite, temporary mining accommodation, tourism, Aboriginal art gallery and sales, and Aboriginal employment.

If key projects materialise, upgrades to power generation, road services, airport facilities, schools/medical facilities, recreational facilities and re-zoning of land requirements will be necessary.



North Midlands sub region

- Contains 10% of Mid West's population and 11% of the sub region's population is Aboriginal. This is not uniform across the sub region as Mullewa and Morawa have approximately 28% and 23% Aboriginal populations respectively.
- Natural environment and land use from the Coolimba coast and coastal towns of Green Head and Leeman to inland town of Perenjori.
- Challenge to retain and grow its population share and has an ageing population demographic.
- Number of iron ore projects within close proximity to towns such as Perenjori and Morawa that in next few years will proceed to construction and operation phases.
- Concerns have been raised about the impact of mining developments on housing availability and social infrastructure in Morawa and Perenjori.
- There is potential for further development pressure and increased tourist numbers in the coastal areas of this sub region following the recent completion of Indian Ocean Drive (a new coastal road from Perth to the Mid West).
- Pressure to develop new settlements along the coast near Green Head and Leeman.
- Climate change and farm amalgamation driving structural adjustment.
- Significant potential for renewable energy projects which provide economic diversity but these are largely reliant on access to the SWIS (electricity transmission system which also services Perth).

Shire of Carnamah

The Shire of Carnamah is located approximately 160 km south of Geraldton and includes the towns of Carnamah and Eneabba. Increased resource activity could have the greatest effect on Eneabba, which is near the proposed Coolimba power project. The decline of the mineral sands industry at Eneabba has had a significant impact on the local economy.

Current industries include wheat and sheep agriculture. Activities as a resulting in additional economic activity including Select Harvest Almond Farm, Winchester Quarries, completion of Indian Ocean Drive, and the North Country Reinforcement Project.

Key drivers:

- Decrease in population in inland areas.
- Increase in aging population.
- Quality housing for business employees.

Shire of Coorow

The Shire of Coorow is located approximately 200 km south-east of Geraldton and consists of the three major townsites; Coorow, Leeman and Green Head. Potential expansion in the resource industry in the region is likely to affect Leeman and Green Head as they are both attractive coastal settlements. The towns consist of a high proportion of semi-vacant dwellings, which are owned by investors or holiday homes.

Key drivers:

- Ageing population.
- High childless population.
- Demand for quality homes to attract more workers to locate and travel to mines (health and education improved).
- The recent opening of Indian Ocean Drive should boost tourism.

Shire of Mingenew

The Shire of Mingenew is located approximately 110 km south east of the City of Geraldton-Greenough and about 370 km north of Perth. The shire covers an area of 1,939 km² and has an economy dominated by farming (sheep, wheat and lupins). The town of Mingenew services the needs of the surrounding area.

Mingenew has support services for agriculture, metal fabrication, tyres, mechanical, stock transport, wheat, sheep, canola, beef and beef agriculture as key industries.

Key drivers:

- Decrease in population (average decrease of 2.1% p.a. from 2005 to 2010).
- Major mining projects – FIFO.
- 70% of population under 50 years.



Shire of Morawa

The Shire of Morawa is located approximately 170 km east-south-east of the city of Geraldton and about 390 km north of Perth. The shire covers an area of 3,516 km² and is predominantly an agricultural based district. Mining of iron ore has provided significant impetus to the local economy.

A key concern for Morawa is electricity reliability as it is located on the edge of the power grid. It is endeavouring to find alternative energy solutions.

Key drivers:

- Increasing mining operations.
- Need to maximise opportunities from local mining.
- Morawa is experiencing increasing population driven by the development of mining operations in the area.
- High Indigenous youth population (55.3% under 18).
- 5% in public housing.

Shire of Mullewa

The Shire of Mullewa is approximately 100 km east of Geraldton on the Geraldton- Mount Magnet Road. Shire of Mullewa will undergo a merger with the City of Geraldton-Greenough and become the City of Greater Geraldton. It is strategically located in terms of rail infrastructure, which presents both opportunities and constraints for the town. Mullewa is keen to attract new economic development but balanced with the amenity and rural lifestyle of the town.

The Mount Gibson iron ore mine has brought new opportunities to the town of Mullewa along with tourism. There are other resource prospects currently under consideration to the east of Mullewa that may provide additional employment opportunities. Mullewa's major industry is agriculture (44% of workforce is employed by agriculture), mining and tourism. The town has experienced a decline in population for almost 30 years. If the population did increase there would be ample capacity but services would need to be upgraded.

Key activities include an increasing interest in Indigenous art, an increase in tourism, servicing infrastructure (e.g. rail), the construction of rail, light commercial/industrial, accommodation for construction workers and road-train trailer manufacture.

Key drivers:

- Need for social stability.
- Decreasing population (-3.6% p.a. from 2005 to 2010).
- 70% of population under 50.

Shire of Perenjori

The Shire of Perenjori is located approximately 180 km south-east of Geraldton and is predominantly an agricultural district producing wheat and sheep. Perenjori is in reasonable proximity to Mungarra and Mount Karara (which is a long life iron ore mine). Karara has proceeded and this could present growth opportunities for Perenjori. Perenjori has a Solar Thermal Plant (proposed) and the potential development of Extension Hill Magnetite (\$2 billion).

Key drivers:

- Fluctuating population - down 0.6% in 2009/10 but decreased 1.9% p.a. average between 2005 to 2010.
- Secure benefits of increased economic activity particularly mining and renewable energy.

Shire of Three Springs

The Shire of Three Springs is located approximately 140 km south-east of Geraldton. Three Springs is a small country town, with a mix of grain and grazing, mining and government services in the shire. Being centrally located in the North Midlands region, Three Springs hosts the regional offices of Agriculture WA, WaterCorp and Western Power as well as being serviced by a police station, hospital and primary school.

Key activities for the area include the Three Springs Talc Plant, the largest in the southern hemisphere.

Key drivers:

- Steady / declining population (down 3.8% in 2009 and steady from 2005 - 2010).
- Increasing surrounding economic activity.



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