

The Chamber of Minerals and Energy of WA

The WA Resources Sector and Growth in the South West

Presented by Matt Granger
South West Liaison Officer

Strategic Planning - What about the South West
14 March 2008

Our Business

- CME is the peak resources industry representative body in Western Australia.
- Our role is to lead the way in having the resources sector recognised as a highly valued and strongly supported member of the Western Australian community.
- To achieve this, CME strives to:
 - **Represent**
 - **Act as a powerful industry voice**
 - **Provide an avenue by which members can work together**
 - **Build community understanding**

Our Membership in the Region

- Alcoa World Alumina Australia
- Worsley Alumina
- Talison Minerals - Greenbushes Operations
- Griffin Coal
- Wesfarmers Premier Coal
- Doral Mineral Sands
- Bemax Cable Sands
- Iluka Resources
- Cristal Millennium Inorganic Chemicals
- Boddington Gold Mine
- Macmahon Holdings
- Verve Energy
- WesTrac
- Bunbury Port Authority

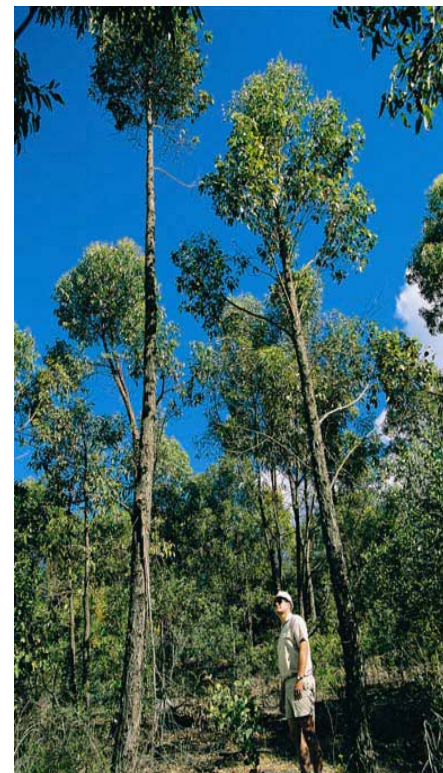


Photo courtesy of Griffin Coal

Resources in the South West & Peel



Photo courtesy of Alcoa World Alumina Australia

- **Around \$6 billion in 2006**
- **At least 10,000 people employed directly - with more than 20,000 jobs indirectly**
- **Value-Adding industries**

WA Resources Sector 2006/07

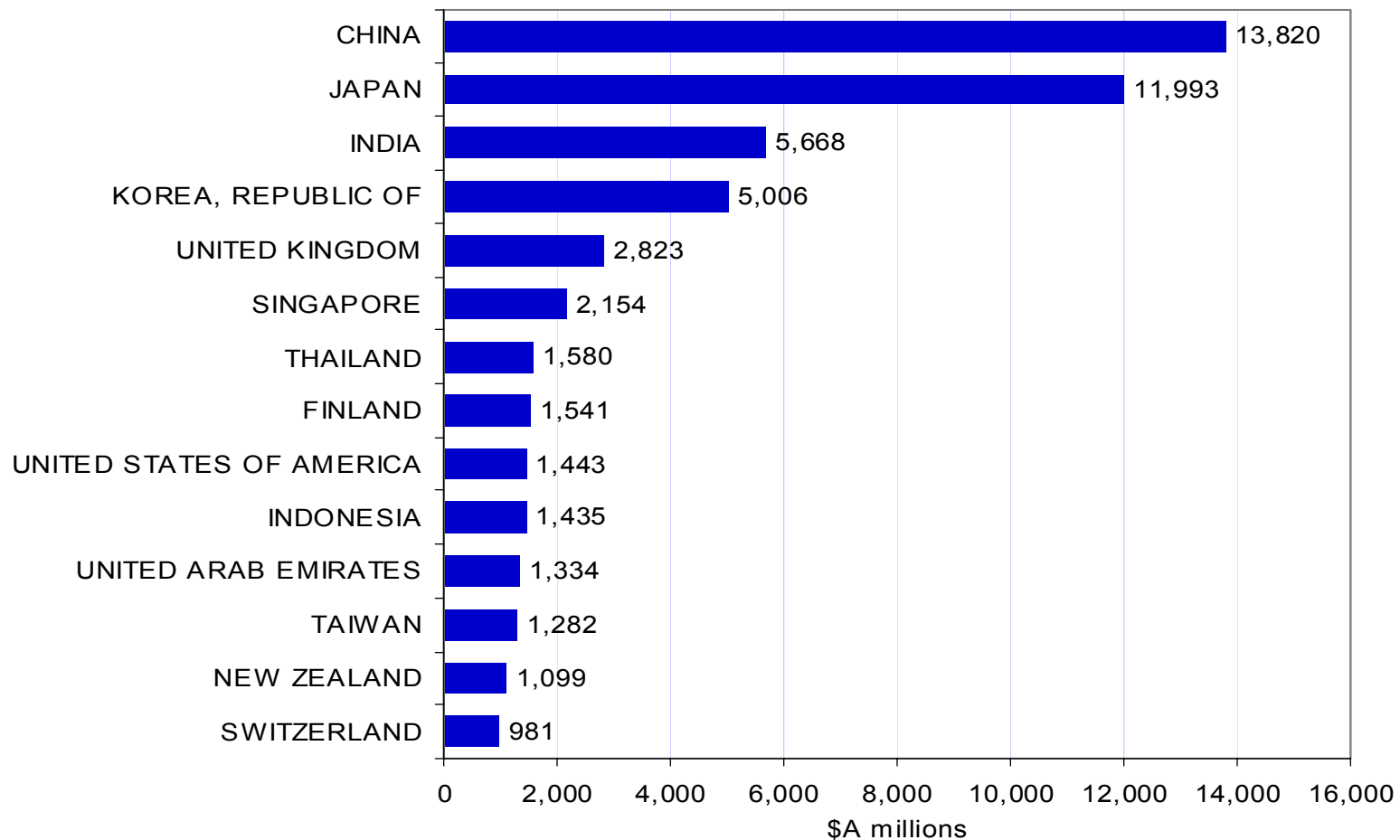
- \$53.4 billion in production value
- 88% of total export income for WA
- Around 30% of WA's Gross State Product
- \$2.1 billion in State royalties
- Direct employment of 61,709
- Direct and indirect employment around 243,750
- More than **\$100 billion** of resources projects are either underway or planned in WA
- 2006/2007 annual large company salaries rose 6.8% in WA compared to 4.6% for the rest of Australia

Source: DoIR 2006 and AIM National Salary Survey 2007



Photo courtesy of Talison Minerals -
Greenbushes Operations

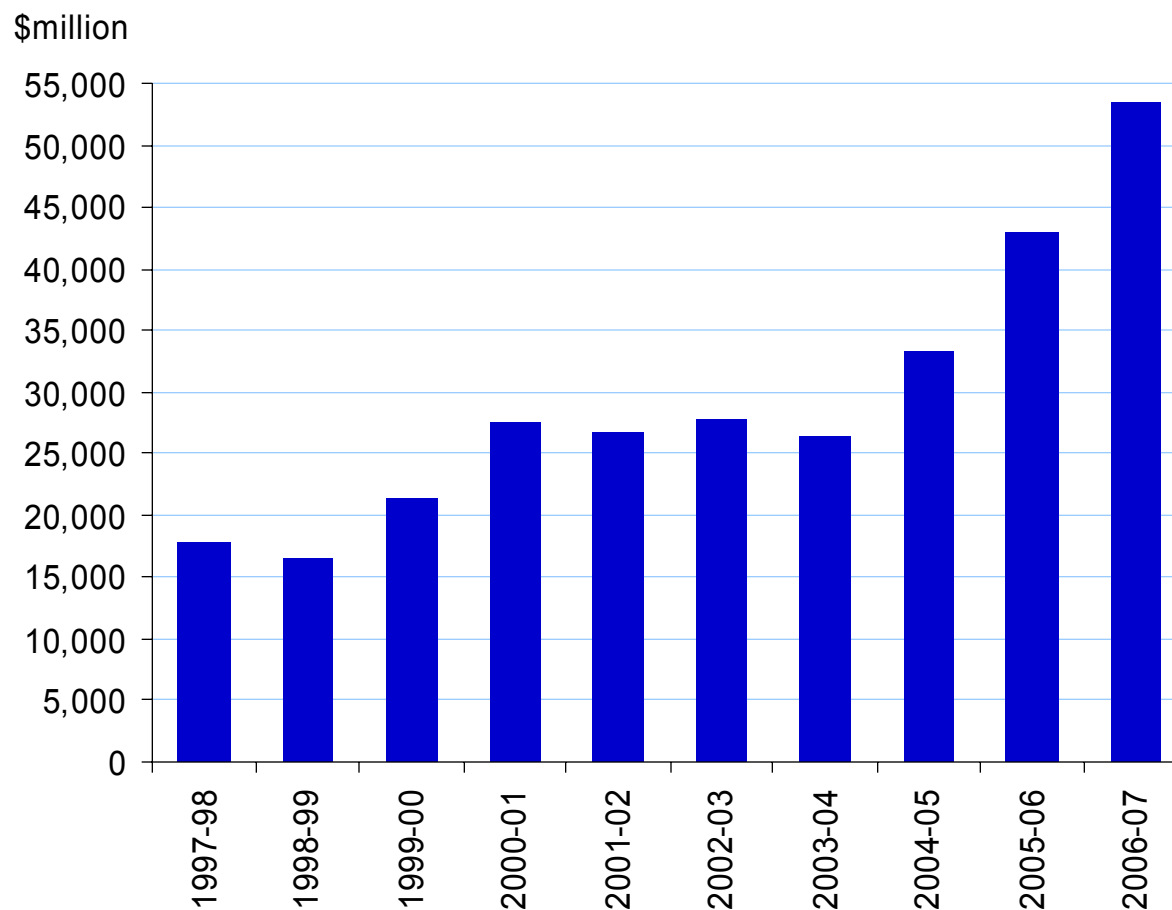
Western Australian Merchandise* Exports 2006/07



* = excludes exports of services

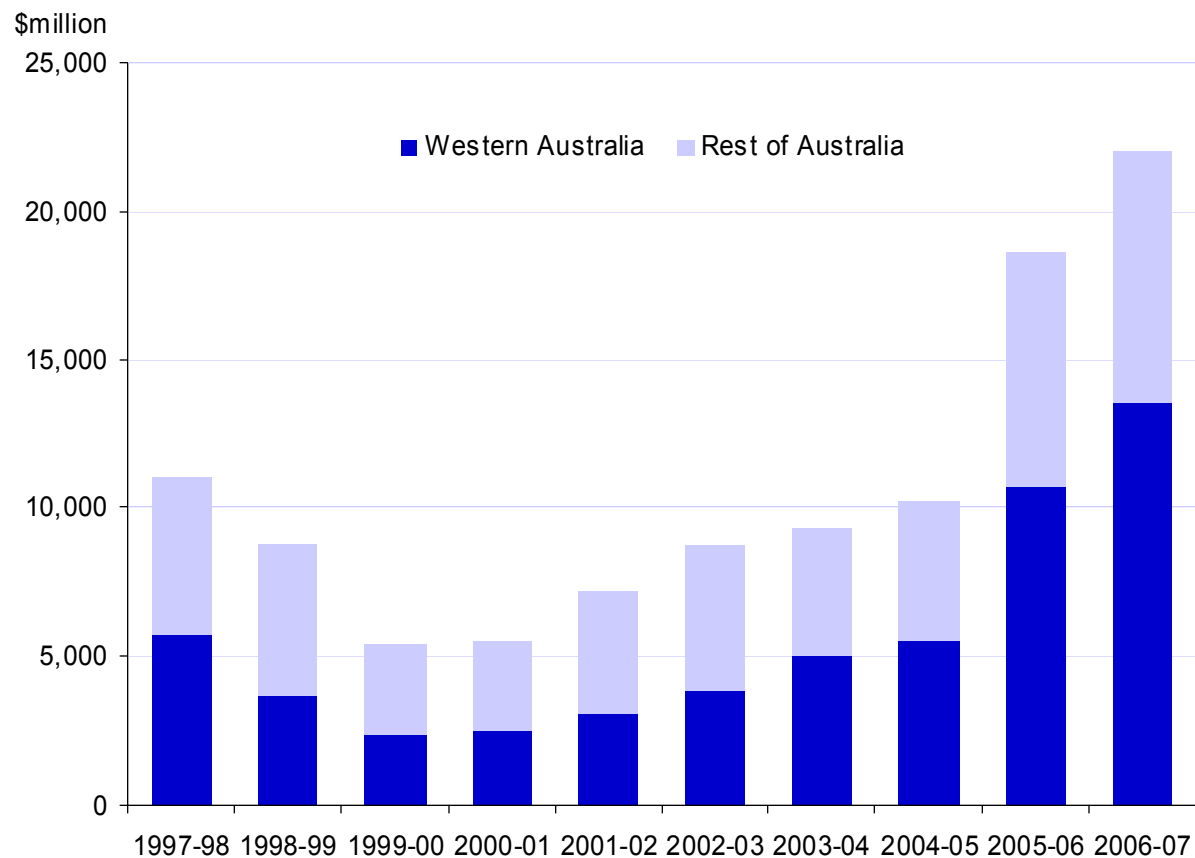
Source : Australian Bureau of Statistics.

Western Australian Value of Resources Production



Source : Department of Industry and Resources.

Mining Investment



Source: DoIR 2006

Global Growth Rates (Real GDP)

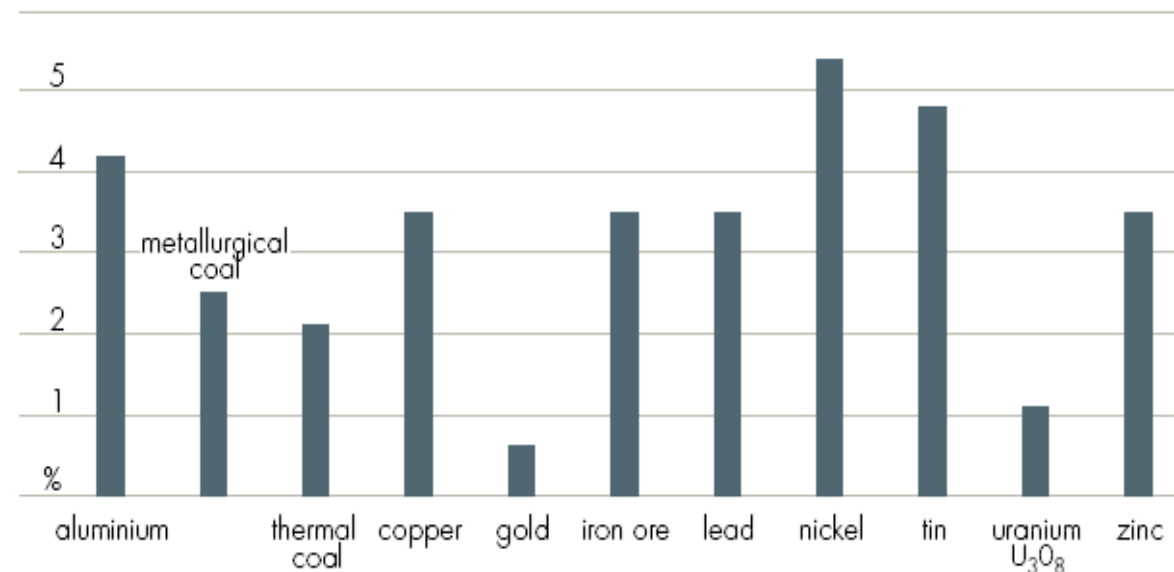
Country/Region	2003	2004	2005	2006	2007*	2008*
	% Change from Previous Period					
World	4.0	5.3	4.9	5.4	4.9	4.9
Advanced Economies	1.9	3.3	2.5	3.1	2.5	2.7
Australia	3.1	3.7	2.8	2.7	2.6	3.3
China	10.0	10.1	10.4	10.7	10.0	9.5
Japan	1.4	2.7	1.9	2.2	2.3	1.9
Korea	3.1	4.7	4.2	5.0	4.4	4.4
United States	2.5	3.9	3.2	3.3	2.2	2.8

Source : IMF - World Economic Outlook April 2007

Minerals Demand to Continue in the Medium Term

- China will continue to be a key driving in global resources demand
- Chinese metal consumption still low
- Room to grow
- Global production constraints, like labour supply, will ensure stable commodities prices in the medium term

fig3 average annual growth in minerals consumption, 2005-11



Source: ABARE Research Report 07.3

WA has a Strategic Role in Global Resources

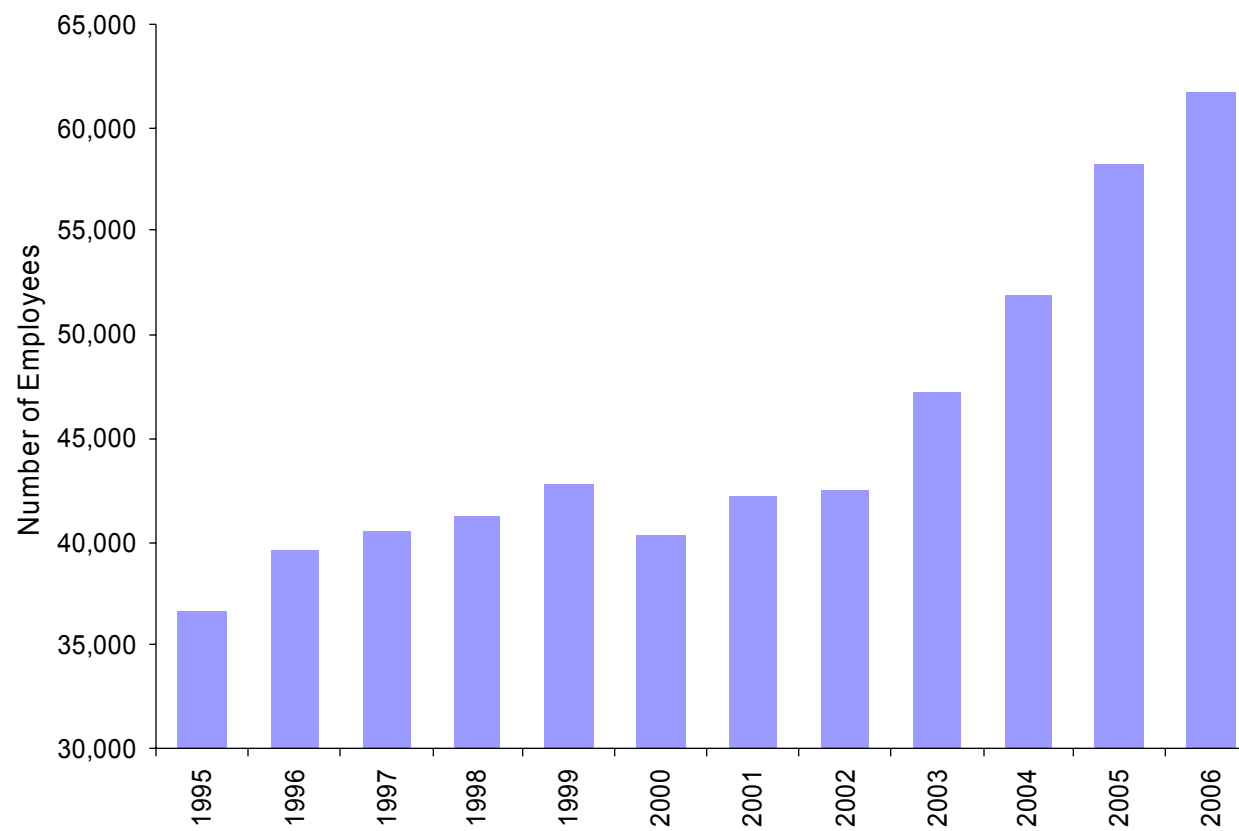
WA output (by quantity) as a share of the world market for:

- Tantalum 54%
- Iron ore 18%
- Diamonds 18%
- Alumina 17%
- Nickel 15%
- LNG 8%
- Gold 7%



Source: DoIR 2006

Direct Employment in the Western Australian Resources Sector



Source : Department of Industry and Resources.

Resources Sector & Regional Development

- The resources sector plays a major part in the development of regional infrastructure
 - Service towns, transport and essential services
 - Key developments - eg Dampier to Bunbury Natural Gas Pipeline, the Goldfields Gas Transmission line
 - Aviation industry supported by FIFO charter operations
- Resource companies are significant providers of physical infrastructure eg water, electricity, ports, rail, roads and airports
- Social infrastructure provided by resources companies includes health care, education and training, housing and community development
- Better social infrastructure attract and retain skilled workers to live in regional areas

The Resources Sector in our Region



Photo courtesy of Alcoa World Alumina Australia

Much less than 1%
of total land area is
disturbed by mining

One of the least
extensive, highest
value land uses in the
Region

Environment & Community

Resources companies in the Peel and South West have received state, national and international recognition for environmental stewardship



GOLDEN GECKO
Awards for Environmental Excellence



Photo courtesy of Wesfarmers Premier Coal

Environment & Community

Resources companies are very mindful of the impact of their operations on the environment and community

We seek to leave a positive long-term legacy from our industry



Photo courtesy of Alcoa World Alumina Australia



Photo courtesy of Wesfarmers Premier Coal

Legacy Case Studies - Lake Kepwari & Collie Motorplex

Wesfarmers Premier Coal in Collie have converted former coal mine voids into lakes suitable for recreation and aquaculture



Photo courtesy of Wesfarmers Premier Coal

Haulroads have been transformed into the South West Motor Sports and Training Complex - Motorplex



Photo courtesy of Wesfarmers Premier Coal

Legacy Case Studies - Joshua Brook



Iluka Resources former Yoganup North mineral sands minesite has been rehabilitated into a new rural subdivision, “Joshua Brook” near the Boyanup townsite

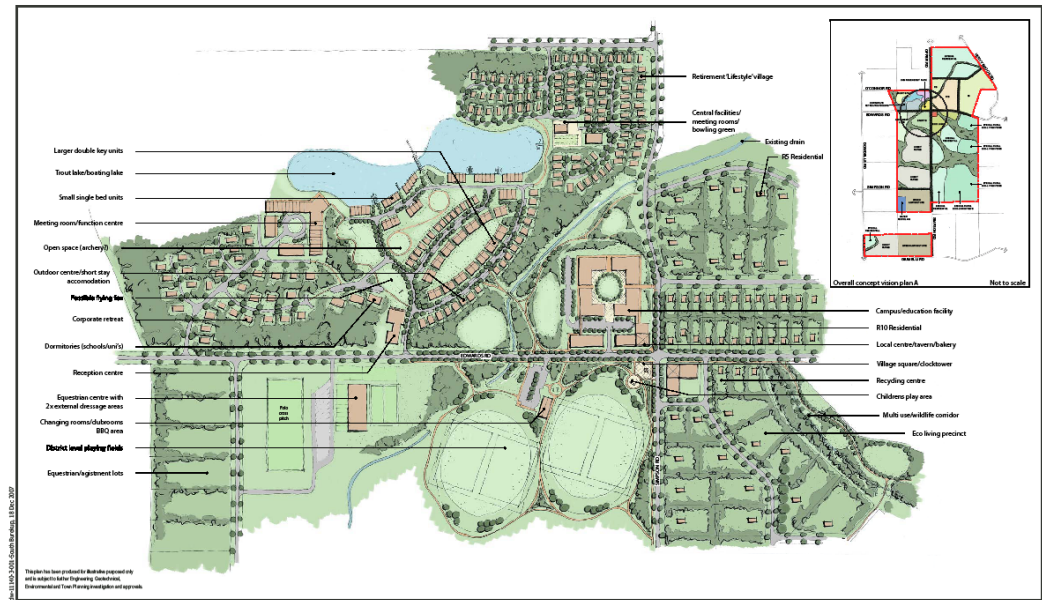


Photos courtesy of Iluka Resources

Legacy Case Studies - Sustainable Urban Development Concept in Dardanup Shire Flowing Directly from Mining

Doral Mineral Sands concept for land use post mining including:

- Residential - High Density - Special Residential
- Niche tourism accommodation & conference facilities
- Agriculture - inc permaculture
- Conservation areas
- Education facilities
- Recreation facilities



Concept Vision Plan A
VARIOUS LOTS, HENTY BROOK ROAD
SOUTH BUREKUP

Areas and dimensions are subject to change. The concept is intended to be a general guide only. All dimensions are subject to change. All dimensions are subject to change. All dimensions are subject to change.

Doral Mineral Sands Pty Ltd
18 December 2017
1:1000 @ A1
1:1000 @ A2

CLIENT
SCALE
DATE
PLANNING
REVISION
REV
MSP
DRAWN

koltas smith
URBAN PLANNERS ARCHITECTS
100 HAY STREET, PERTH WA 6000
PH: 08 9438 2000
WWW.KOLTASSMITH.COM.AU

Image courtesy of Doral Mineral Sands

Current Resource Sector Issues in WA

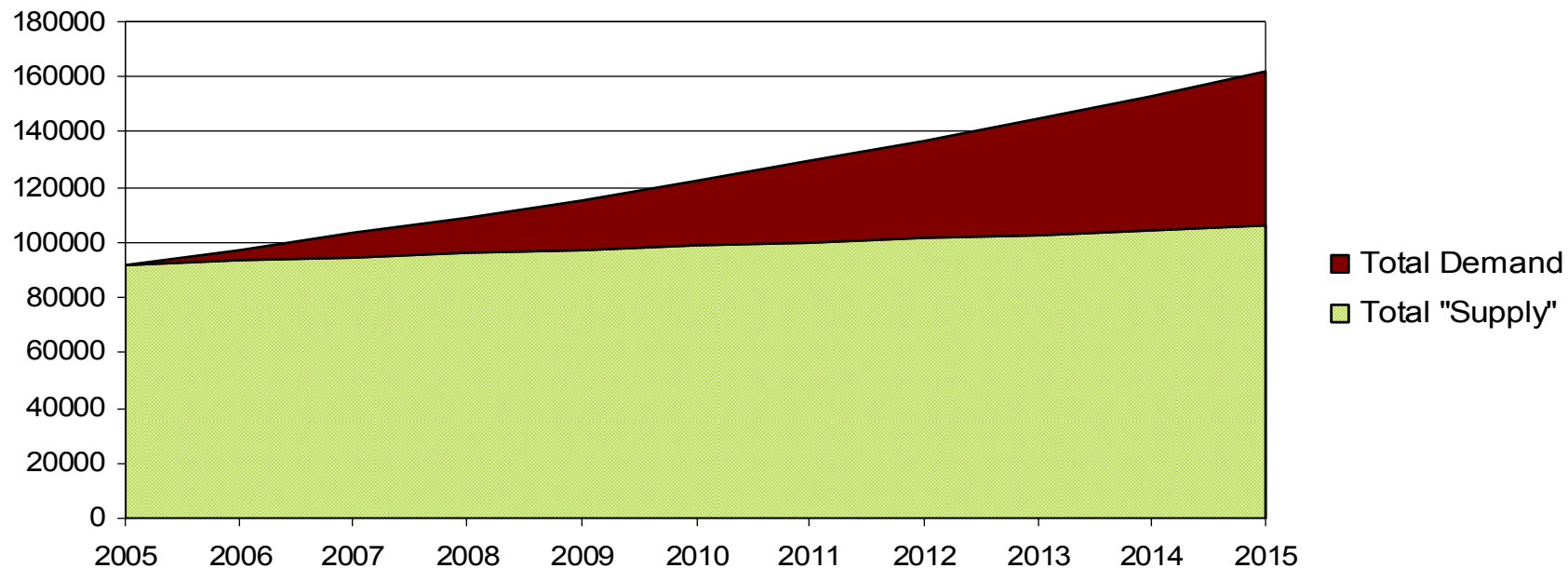
- Skills shortages/skills development
- Project approvals/regulatory measures
- Greenhouse reporting and trading schemes
- Indigenous employment and engagement
- Exploration rates declining
- Infrastructure and development
- State energy policy
- Water



Photo courtesy of Alcoa World Alumina Australia

Gap between Demand and “Supply” (number of persons)

2005 Australian mining employment 92,117 vs 2015 Australian mining employment demand 162,275 (up 76%)



Outlook to 2015

- Employment: Need 42,000+ additional employees to 2015
- Increased value-adding R&D and production across sector
- Continuous improvement in safety and environmental performance
- Maximising our resources wealth by adding skills, intellectual capability and investment
- Exposure to world-class operations and research facilities resulting in fast growth in the mining services and technology sector every year
- Growth of services to the resources sector
- Role of WA as a global resources province



Photo courtesy of Cristal Millennium Inorganic Chemicals



For further information please contact
Matt Granger
South West Liaison Officer
The Chamber of Minerals and Energy of Western Australia Inc
Locked Bag N984, Perth WA 6844
Telephone: (08) 9791 6707
Facsimile: (08) 9791 7680
Email: m.granger@cmewa.com