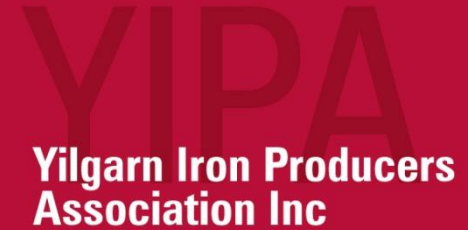


# Yilgarn Iron Province (YIP)

Western Australia's next big thing –

Unlocking the potential

David Utting (YIPA Secretary)  
[www.yipa.com.au](http://www.yipa.com.au) October 2011

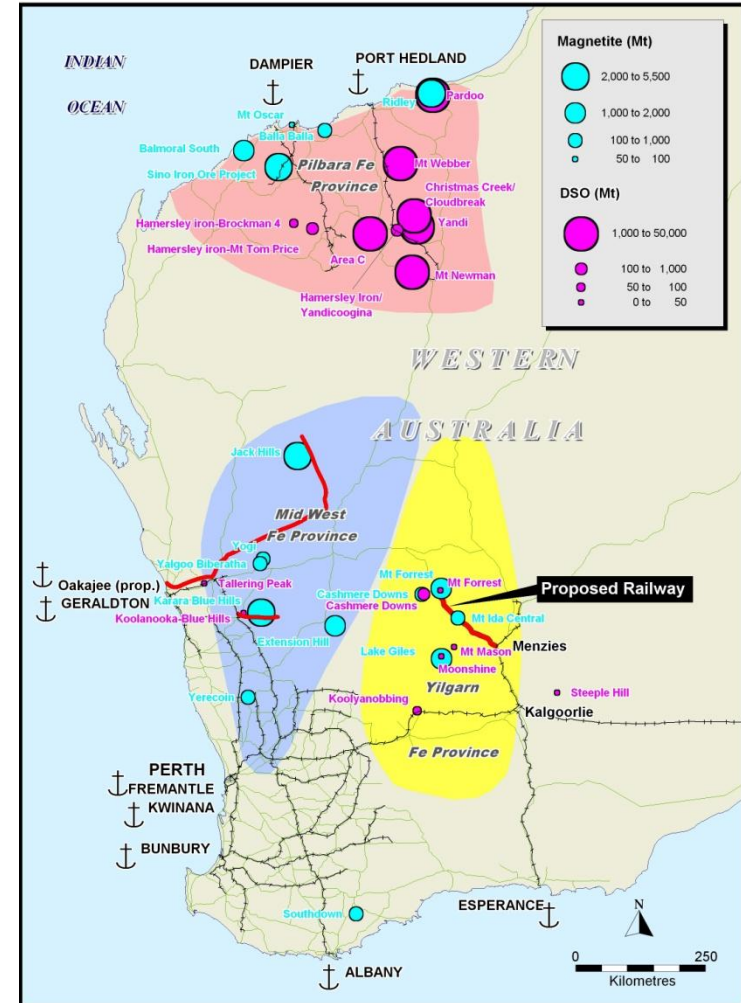
The logo for the Yilgarn Iron Producers Association Inc. It features the acronym 'YIPA' in large, bold, white letters on a dark red background. Below the acronym, the full name 'Yilgarn Iron Producers Association Inc' is written in a smaller, white, sans-serif font.

**YIPA**  
Yilgarn Iron Producers  
Association Inc

# Yilgarn Iron Province (YIP)

The key attributes of the YIP are:

- Abundant iron ore deposits
- Proximity to existing infrastructure - rail, gas and road
- Ports – Esperance, Albany, Bunbury, Kwinana, Geraldton, Oakajee
- Proximity to a mature mining culture in the Goldfields
- Concentration of resources geographically
- Companies willing to work together through ‘common interest’



**Yilgarn Iron Producers Association (YIPA)**

# Why the Yilgarn Iron Province?

## Infrastructure Advantages

- Open access to road, rail and port facilities
- Infrastructure independently owned by operators looking for customers
- Spare rail & port capacity
- Major issues for juniors in Pilbara & Mid West

	DSO Resources	Growth potential	RAIL access	PORT access
Pilbara	✓	✓	✗ Access issues	✗ Access issues
Mid-West	✓	✓	✗ To be constructed	✗ To be constructed
Yilgarn	✓	✓	✓ Independently controlled	✓ Independently controlled

# Iron Endowment

- Cliffs already exporting about 10 Mtpa
- Trend line for CET/JORC to increase with ongoing exploration

DSO Inventory	CET	JORC	Near Term Production
	1.1 Btonnes	785 Mtonnes	20 Mtpa

PBM Inventory	CET	JORC	Near Term Production
	14.5 Btonnes	4.7 Btonnes	Nil
			July/11

# Membership

- Nine key players representing almost all of the substantial companies
- All stages from exploration to production represented
- Mostly ASX listed, a couple of privates
- Interest from additional companies

1. **Cliffs Natural Resources Pty Ltd**
2. **Earaheedy JV Pty Ltd - Cazaly**
3. **Fe Ltd**
4. **Golden West Resources Ltd**
5. **Legacy Iron Ore Ltd**
6. **Meteoric Resources NL**
7. **Mindax Ltd**
8. **Polaris Metals Pty Ltd**
9. **Radar Iron Ltd**

**YIPA Inc is an incorporated not-for-profit Association with a focus on the YIP and its infrastructure links**

The aims of the Association are to promote:

- sustainable economic development and mining and community, indigenous and environmental achievement
- the interests of prospective and current iron miners and the development of infrastructure

- Each member has their own strategy and business plans
- In some areas there are common interests and co-operation may result in synergies
- YIPA provides a forum for matters of common interest
- The key objective is to positively impact on infrastructure planning
- To provide an interface with Infrastructure providers

# Stakeholders / Projects

YIPA Inc has now moved from a start up phase to an operational stage. Projects include:

- Ore delivery schedule to aid infrastructure planning
- Mapping, environment projects in conjunction with GIOA entered into
- Kobe Steel Pellet Plant
- Stakeholder consultation underway

- Infrastructure providers - rail, port, gas, power, communications
- Chambers of Commerce inc ECCI
- Industry Associations/bodies
- Geraldton Iron Ore Alliance strategic relationship
- Indigenous groups
- Local Shires
- State and Federal Government

# WA's Next Big Thing – Unlocking the Potential

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## Investment & Employment Boost:

- With a half a dozen companies announcing plans to start DSO and/or magnetite operations within the next four years, up to \$5 billion worth of investment could flow into the YIP in the near future
- Growing this new iron industry could generate 1500 jobs per magnetite operation and 400 jobs per DSO operation in the construction phase. With the addition of supporting services workers, 8000 jobs could soon be created in the YIP with thousands of long term jobs in the Goldfields, Esperance region and WA
- Not only the immediate region, but all of WA will prosper from significant infrastructure upgrades and the establishment of a new long term export industry with 35 year plus minelife. Typically, the region has hosted many minor mines with small lifespans but magnetite operations promise scalability, reliability and longevity

# Infrastructure YIP

- Rail - Kalgoorlie to Leonora
- Rail Trans line
- Rail Kalgoorlie to Esperance
- Kalgoorlie Rail Hub
- New Rail in YIP
- Gas/power
- Roads
- Esperance – rail corridor to Port
- Pellet Plant –Kobe Steel proposal



# Rail Upgrade to Esperance

Built as Pioneer railway with poor geometry and steep track profile leading to:

Low operating speed → increased operational cost

- **Menzies to region of Mt Forrest – New Rail approx 160 km**

This final piece of new track will connect prospective mines to the existing rail hub at Menzies and onwards to existing iron ore export ports. Prospective miners are examining options for the construction of this last 160km stretch

- **Menzies to Kalgoorlie - Rail Upgrade 130 km**

This section of the line requires re-railing, re-sleepering and additional passing loops to bring it up to the standard required for heavy haulage iron ore transport. Discussions are underway between prospective miners and infrastructure providers to undertake this upgrade

- **Kalgoorlie to Esperance Rail Upgrade 383 km**

WestNet Rail is partnering with Cliffs Natural Resources Pty Ltd to upgrade rail between Kalgoorlie and Esperance to support the 12 million tonnes per annum iron ore operation from Koolyanobbing through Esperance Port

- Approximately \$200 million investment
- Re-rail and re-sleeper around 380km of track
- Build new and extend existing crossing loops and redevelop Esperance yard

# Port Access from the YIP

- **Kwinana Port Upgrade**

Polaris Metals (Mineral Resources) has in May secured a 4.4 Mtpa allocation through Kwinana and loading facilities are being constructed.

- **Albany Port Upgrade**

Grange Resources is working to export ore from its \$2.6 billion Southdown Project through the Port of Albany. The proposed Albany Port upgrade is a major project that will increase the Port's annual tonnage throughput from around 4 Mtpa to 11 Mtpa through the export of iron ore.

- **Oakajee Port Construction**

The construction of Oakajee will serve the Mid West and the northern part of the Yilgarn iron province. This new port is vital to the development of the YIP and is strongly supported by YIPA Inc.

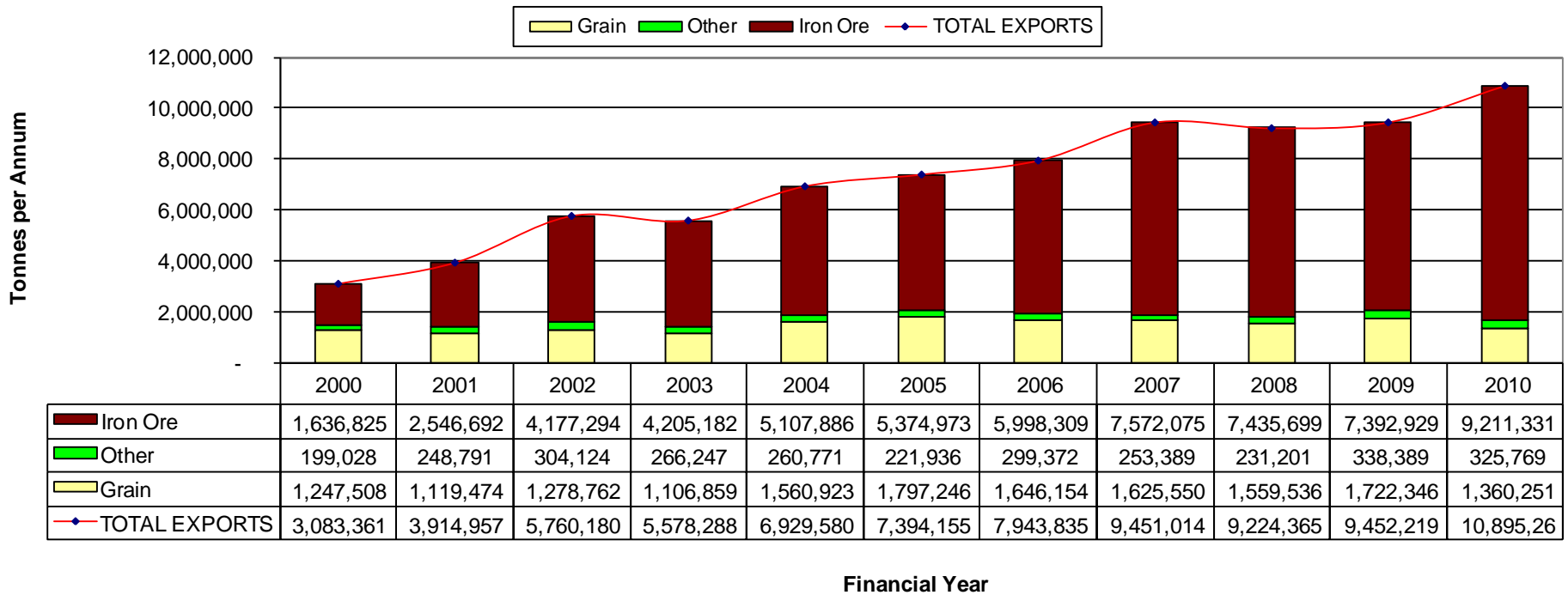
- **Esperance Port Upgrade**

EPSL in November 2010 announced a proposal to upgrade the 11.5 Mtpa iron ore export licence capacity by 10 Mtpa within two years followed by another 10 Mtpa soon after bringing the total to about 32 Mtpa. In May 2011, Ports Minister Troy Buswell gave permission for the Port to develop a detailed plan, based on the above. Stage One and Stage Two may be constructed as the same time.

# Esperance Port – Exports

(Iron Ore, Grain & Other)

### EPSL Exports



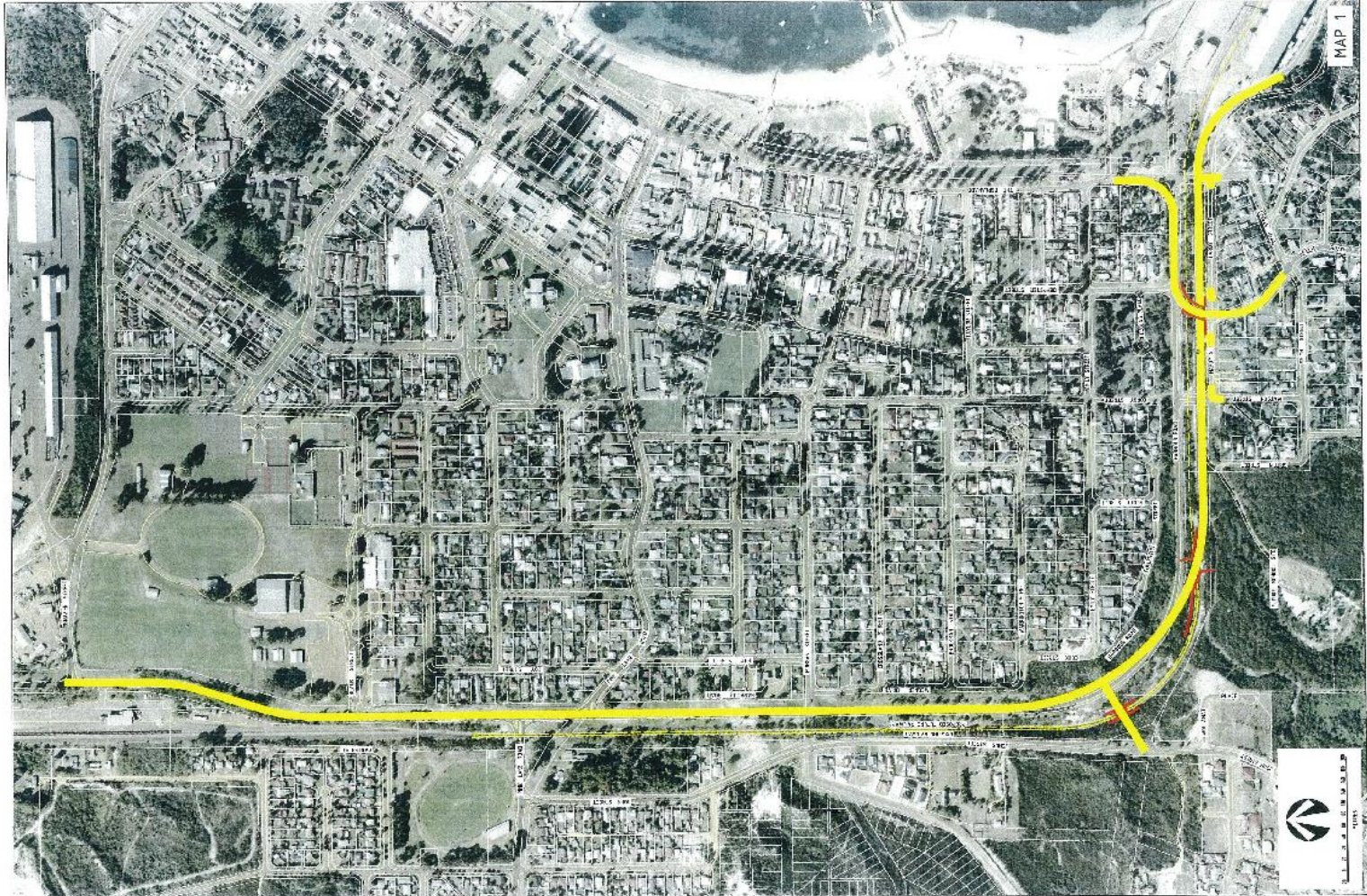
# Proposed Esperance Port Upgrade

## Multi User Iron Ore Facility

– Deloitte's review underway; Key Milestones may vary



# Esperance Rail Corridor Upgrade



# Esperance Rail Corridor Upgrade

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- Regional Development Minister Brendan Grylls has signed off on a \$120 million upgrade to road and rail infrastructure on the approaches to Esperance Port.
- This will address road traffic bottlenecks within the town site and is expected to be completed by end 2013
- Allows future rail expansion to three tracks (or conveyor)
- It does not:
  - Deliver additional rail capacity
  - Affect rail infrastructure within the port
  - Have any bearing on the capacity of the port

# Esperance Port Upgrade - Proposed

- Upgrade Stage One (capacity 10 Mtpa)  
New twin RCD (cell rail car dumpers) and associated infrastructure
- Two or more negative pressure sheds (800,000 tonnes) with automated product reclaiming systems
- New rail and conveyer systems
- 10 MW gas turbine power station
- New 10,000 tph (tonne per hour) ship loader
- Upgrade Stage Two (capacity 10 Mtpa)  
Extend berth 3 to allow for two Cape sized ships
- Increase combined ship loading to 20,000 tph



# Infrastructure

	<b>Current</b>	<b>2112</b>	<b>Stage 1 Upgrade</b>	<b>Stage 2 Upgrade</b>	<b>Limit</b>
<b>Rail</b>	8.8 Mtpa	9 -11.5 Mtpa	21.5 Mtpa	31.5 Mtpa	?
<b>Esperance Port</b>	10.7 Mtpa	11 -12.5 Mtpa	22.5 Mtpa	33 Mtpa	?
<b>Gas Pipeline</b>	146Tj/day				150Tj/day

# Questions

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**Western Australia's next big thing -  
Unlocking the Yilgarn Iron Province's  
potential**

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