

# Increasing Iron Ore Exports Through Esperance Port

**The key features of the Proposal to increase iron ore exports from 8.8 Million tonnes per annum (Mtpa) to 11.5Mtpa are:**

- no change to the number of trains (20 per week), or frequency of train movements (6 per train), since the use of longer trains (from 126 currently, to 159 wagons) is proposed;
- no significant changes to existing infrastructure and no new infrastructure required at the Esperance Port; and
- no change to the total number of export sea vessels currently approved from the Esperance Port.

**The key areas where work is proposed are:**

- Sims Street: Proposed construction of a road traffic bridge at Sims Street rail crossing.
- Esperance Rail Yard: The proposal includes new and replacement track and a new locomotive/wagon maintenance shed and a warehouse building at the Esperance Rail Yard.
- Esperance Port: The proposal includes minor modifications to the rotary car dumper and conveyor systems.



# Changes Required to the Current Environmental Approval

Esperance Ports Sea and Land (EPSL) receives, stores and exports iron ore for Cliffs. EPSL’s current environmental approval under the *Environmental Protection Act 1986* is Ministerial Statement 681. This approval allows for up to 8.8 million tonnes of iron ore to be delivered and exported from the Esperance Port each year.

Ministerial Statement 681 also contains a number of conditions requiring EPSL to undertake environmental monitoring and reporting. The proposed changes do not require any modifications to these conditions. Table 1 summarises the changes required to the current approval.

**Table 1: Summary of proposed changes to key proposal characteristics of Ministerial Statement 681.**

Element	Existing Approval	Change Proposed
On-going operation	Iron ore delivered to the Port by Rail will occur at a rate of up to <b>8.8</b> million tonnes per annum.	Iron ore delivered to the Port by Rail will occur at a rate of up to <b>11.5</b> million tonnes per annum.
	Iron ore export from the Port will occur at a rate of up to <b>8.8</b> million tonnes per annum.	Iron ore export from the Port will occur at a rate of up to <b>11.5</b> million tonnes per annum.
	The number of iron ore trains from the mine to the rail yard will increase from an average of 18 to an average of 20 iron ore trains per week.	No change proposed.
	EPSL will accept up to 80 iron ore trains per week (with and without wagons).	No change proposed.
	Approximately 80 iron ore vessels will enter the Port per year.	No change proposed.





Sims St Rail Crossing

Esperance Rail Yard

Esperance Port

# Sims St Road Traffic Bridge

Iron ore trains are currently 126 wagons long but the proposal to increase exports to 11.5 Million tonnes per annum (Mtpa) will require trains that are 159 wagons long. Using existing infrastructure, trains 159 wagons long would block the Sims Street crossing for an extended period of time whilst the train is broken up into 53-wagons rakes destined for the Esperance Port. To avoid this additional disruption to the Esperance community, in consultation with the Shire of Esperance, Cliffs proposes to construct a new road traffic bridge at Sims Street

## Benefits:

- Minimises risks at the road/rail interface;
- Provides greatly improved public amenity;
- Maintains Esperance Rail Yard operations within the current industrial precinct; and
- Requires zero land take.



Above: Existing Sims Street road/rail crossing.

# Rail Crossing Times

There will be no change to the number of trains (20 per week), or frequency of train movements (6 per train), since the use of longer trains (from 126 currently, to 159 wagons) is proposed. There will still be a total of 6 movements for each 159 wagon train between the Esperance Rail Yard and the Esperance Port, which is identical to the current operation (see Table 1).

In summary, the rail crossing changes include:

- 3 movements that facilitate a reduced crossing activation time; and
- 2 movements that require an increased crossing activation time.

There will also be 1 movement with no discernible change in crossing activation time.

Overall, the net total crossing activation time per train will be within 2 minutes of current operation and the proposed Sims St road traffic bridge will allow uninterrupted east/west access over the rail line.

**Table 1: Train movements, the current and proposed train unloading process and the change in typical crossing activation time.**

Train Movements	Current train unloading process (8.8Mtpa)			Proposed train unloading process (11.5Mtpa)			Change in typical crossing time (min)
	Locos	Wagons	Train Length	Locos	Wagons	Train Length	
1	3	63	737	2	53	609	<b>-0.3</b>
2	3	0	66	2	53	609	<b>+1.6</b>
3	3	51	609	2	53	609	<b>0</b>
4	3	63	737	2	53	609	<b>-0.4</b>
5	1	12	150	2	53	609	<b>+1.3</b>
6	1	63	693	2	53	609	<b>-0.3</b>

Mtpa – Million tonnes per annum.



# Upgrades to the Rail Track & Esperance Rail Yard

## Rail Track Upgrades

Upgrades to the rail track (a combination of new and replacement track) to the north of the Esperance Rail Yard and within the existing yard will be required and will be undertaken by the owners and operators of the rail line, WestNet Rail and Australian Railroad Group (ARG).

A small amount of clearing of degraded vegetation (approximately 1.1 hectares) will be required to allow the construction and safe operation of the rail line.

## Esperance Rail Yard Upgrades

A new locomotive/wagon maintenance shed and a warehouse building at the Esperance Rail Yard are also proposed to service the trains.



# Environmental Factors

The two key environmental factors for the proposal are noise and dust. Specialist consultants were engaged to determine the potential impact of an increased throughput.

The findings of their assessments were:

- there would be a **reduced noise impact** due to the replacement of the older, noisier L-class locomotives with quieter Q-class and AC-class locomotives; and
- predicted **dust levels will not exceed** existing Esperance Ports Sea and Land (EPSL) licence limits or national dust criteria.

Overall, the proposal will not have any environmental impact that is significantly different from the current operation.

## Other noise reduction actions:

- EPSL and Mineworks have reduced noise from front end loaders operating in the iron ore storage sheds. Self-adjusting reversing alarms have been fitted along with exhaust systems that reduce both noise and exhaust emissions.
- Australian Railroad Group (ARG) are also striving to reduce noise emissions from unnecessary locomotive engine idling.



# Stakeholder Consultation

Esperance Ports Sea and Land (EPSL) and Cliffs Asia Pacific Iron Ore (Cliffs) aim to deliver high standards of governance and an expectation of open and honest communication with all stakeholders. The following stakeholders have been consulted regarding the proposal to increase the export of iron ore through the Esperance Port:

- Shire of Esperance;
- Main Roads WA;
- Landowners;
- Dept of Transport;
- Dept of Planning;
- Public Transport Authority;
- Environmental Protection Authority;
- Dept of Mines and Petroleum;
- Dept of Environment and Conservation; and
- Port Consultative Committee (PCC).



## What is the Port Consultative Committee (PCC)?

The PCC was established by EPSL to provide a communications mechanism between EPSL and the Esperance Community. Meetings are convened at least quarterly and membership of the PCC includes representation from EPSL and the following groups:

- Shire of Esperance;
- Dept of Environment and Conservation;
- Locals for Esperance Development;
- Local Environmental Action Forum;
- Esperance WA Farmers Federation;
- Chamber of Commerce and Industry;
- Esperance Regional Tourism Authority;
- Foreshore Action Group;
- Esperance Regional Tourism Association;
- Parents of Esperance Active for Child Health (PEACH); and
- members of the community.

# Cliffs' Koolyanobbing Mining Operations

The Koolyanobbing Iron Ore Project includes the mining of iron ore deposits on the Mt Jackson Range, Windarling Range and the Koolyanobbing Range, processing of ore at the Koolyanobbing Mine, and rail transport (via Kalgoorlie and Norseman) to the Esperance Port, where the processed ore is exported to international customers.

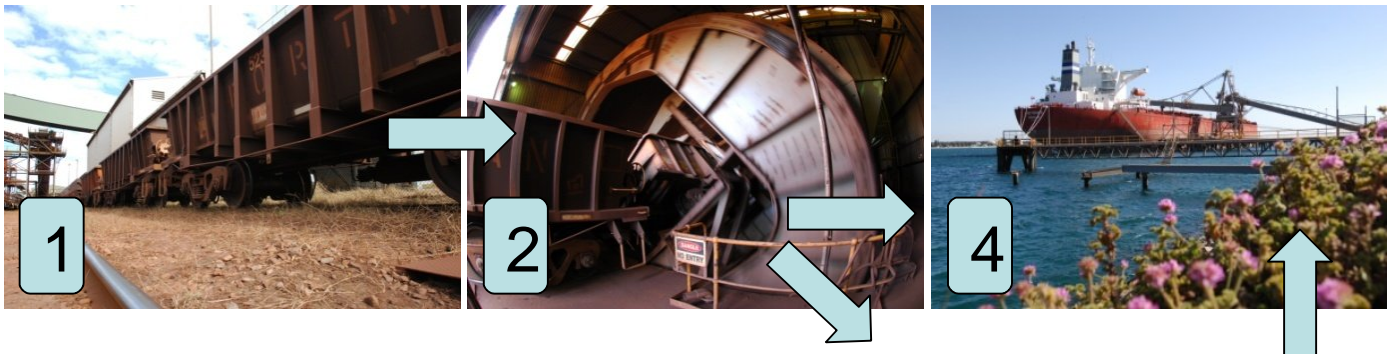


## Facts and Figures

- Continued use of the Esperance Port for the export of iron ore provides longer-term security of local employment in the Yilgarn and Esperance regions during the life of Cliffs' Koolyanobbing mining operations.
- Cliffs have long-term supply agreements with steel producers in China and Japan. A very small amount of Cliffs' Koolyanobbing iron ore is consumed domestically.
- Export of iron ore represents ~70% of the EPSL's revenue.
- Cliffs' State royalty payments were \$51.8M in 2008.
- Cliffs directly employs 85 personnel and over 400 contractors at the Esperance Port and the Koolyanobbing mining operations.



# Iron Ore Handling at Esperance Port



1. Rail wagons bring iron ore from Cliffs Asia Pacific Iron Ore's (Cliffs) mining operations at Koolyanobbing to the Esperance Port for export.
2. The open train wagons pass a fine water spray before entering the rotary car dumper, where the ore is tipped into a hopper and then onto a conveyor.
- 3 & 4. Iron ore is then transported to one of the four enclosed iron ore sheds via an enclosed conveyor system. When a ship is berthed and ready for loading, iron ore is placed onto the conveyor system and is transported to the vessel.

Iron ore can also be direct-loaded onto a vessel, bypassing the iron ore storage sheds.

