MINISTER FOR THE ENVIRONMENT; SCIENCE

Statement No.

000681

STATEMENT THAT A REVISED PROPOSAL MAY BE IMPLEMENTED (PURSUANT TO THE PROVISIONS OF THE ENVIRONMENTAL PROTECTION ACT 1986)

ESPERANCE PORT - UPGRADING OF MARINE FACILITIES
&
INCREASE IN IRON ORE EXPORT THROUGH THE PORT
TO 8 MILLION TONNES PER ANNUM

Proposal: The upgrading of marine facilities consists of deepening berths 1 and 2, dredging of the harbour basin and shipping channel, construction of a new deepwater berth, reclamation of approximately 15 hectares of land, construction of a new iron ore shed and associated shiploading and conveyor systems, and an increased throughput of iron ore to 8 million tonnes per annum, as detailed in schedule 1 of this statement.

Proponent: Esperance Port Authority

Proponent Address: PO Box 35, ESPERANCE WA 6450.

Assessment Numbers: 1277 & 1576

Reports of the Environmental Protection Authority: Bulletins 989 & 1184

The revised conditions and procedures of this statement supersede the conditions and procedures of Statement No. 555 in accordance with section 45B of the *Environmental Protection Act 1986*.

The revised proposal to which the above report of the Environmental Protection Authority relates may be implemented subject to the following revised conditions and procedures:

1 Implementation

1-1 Subject to these revised conditions and procedures, the proponent shall implement the revised proposal as documented in schedule 1 of this statement.

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29th FLOOR, ALLENDALE SQUARE, 77 ST. GEORGE'S TERRACE, PERTH 6000
TELEPHONE: (08) 9220 5050 FACSIMILE: (08) 9221 4665
E-MAIL: judy-edwards@dpc.wa.gov.au
WEBSITE: www.ministers.wa.gov.au/edwards

2 Proponent Commitments

2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement.

3 Proponent Nomination and Contact Details

3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the revised proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.

3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the revised proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.

3-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change.

4 Commencement and Time Limit of Approval

4-1 The proponent shall substantially commence the revised proposal within five years of the date of this statement or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the revised proposal has been substantially commenced.

4-2 The proponent shall make application for any extension of approval for the substantial commencement of the revised proposal beyond five years from the date of this statement to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;

2. new, significant, environmental issues have not arisen; and

3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

5 Compliance Auditing and Performance Review

5-1 The proponent shall prepare an audit program and submit compliance reports to the Department of Environment which address:

1. the status of implementation of the revised proposal as defined in schedule 1 of this statement;

2. evidence of compliance with the conditions and commitments; and

3. the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environment is empowered to monitor the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

6 Environmental Management System

6-1 In order to manage the environmental impacts of the project, and to fulfil the requirements of the conditions and procedures in this statement, prior to commissioning of the new port facilities, the proponent shall demonstrate to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority that there is in place an environmental management system which includes the following elements:

1 An environmental policy and corporate commitment to it;

2 Mechanisms and processes to ensure:

- planning to meet environmental requirements;
- implementation and operation of actions to meet environmental requirements;
- measurement and evaluation of environmental performance; and

3 Review and improvement of environmental outcomes.

6-2 The proponent shall implement the environmental management system referred to in condition 6-1.

7 Seagrass Management

7-1 Prior to the commencement of dredging operations, the proponent shall incorporate measures for seagrass management within the Dredging and Reclamation Management Plan (See commitment 2.1), to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

7-2 Prior to commencing post-reclamation and breakwater construction activities, the proponent shall determine and document the area of seagrass coverage within the provisional seagrass management unit (see Figure 3, schedule 1), to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The objectives of this investigation are to:

- confirm that seagrass losses are consistent with management objectives for seagrass communities in the management unit; and
- determine total seagrass coverage for future management decisions.

This determination shall include:

1. confirmation of the seagrass management unit area and boundary limits;

2. an estimate of historical losses;

3. confirmation of losses due to the implementation of the proposal; and

4. cumulative losses to date.

7-3 Within two weeks following completion of reclamation, the proponent shall record baseline seagrass coverage along the seaward edge of the reclamation area, and then immediately commence a monitoring program of seagrass habitat to determine further seagrass community losses resulting from reclamation activities, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This monitoring program shall be undertaken at six monthly intervals and run initially for a period of two years. At the end of this two-year period, the proponent shall report the results to the Environmental Protection Authority.

7-4 The Environmental Protection Authority will review the need for further monitoring after two years.

7-5 In the event that unexpected or adverse impacts are detected, the proponent shall report these to the Environmental Protection Authority within one month.

8 Sediment Quality Management

8-1 On commencement of reclamation activities, the proponent shall analyse tri-butyl tin and nickel levels in the reclamation fill material to confirm tri-butyl tin and nickel levels in that material. The results of these analyses shall be reported to the Environmental Protection Authority throughout the reclamation activity.

8-2 The proponent shall compare the tri-butyl tin and nickel levels in sediment immediately adjacent to the reclamation site, as determined in the proponent's monitoring program referred to in commitment 8, with the Southern Metropolitan Coastal Waters Study (1996) criteria, or other criteria as appropriate, to ensure that acceptable criteria are met, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Note: As part of the Dredging and Reclamation Management Plan (See commitment 2.1), the proponent is required to outline contingency measures to be implemented in the event that tri-butyl tin and nickel levels in the reclamation fill material exceed agreed criteria (agreed between the Environmental Protection Authority and the proponent) as determined in the harbour sediment survey undertaken during the preparation of the public environmental review document.

8-3 Within three months following completion of construction of the new port facilities, the proponent shall prepare a Sediment Quality Management Plan for port operations to:

- ensure that sediment quality outside the inner harbour complies with Environmental Quality Criteria identified in the Southern Metropolitan Coastal Waters Study (1996), or other criteria as appropriate, consistent with identified Environmental Quality Objectives outside the inner harbour; and

- ensure that operational activities have no significant impact on beneficial users outside the inner harbour,

to the requirements of the Minister of the Environment on advice of the Environmental Protection Authority.

This Plan shall address:

1 Potential impacts of port operations;

2 Monitoring protocols, including frequency and duration of sampling;

3 Sediment quality criteria;

4 Management measures; and

5 Contingency plans in the event of spill incidents or unexpected results demonstrated by the plan.

8-4 The proponent shall implement the Sediment Quality Management Plan required by condition 8-3.

8-5 The Environmental Protection Authority will review the need for further monitoring after two years pending the results reported.

8-6 In the event that unexpected or adverse impacts are detected, the proponent shall report these to the Environmental Protection Authority within one month.

9 Shutdown Provisions

9-1 In the event that dust from iron ore operations is affecting, or likely to affect, surrounding landuses, the proponent shall cease iron ore handling operations to the requirements of the Minister for the Environment.

10 Decommissioning Plan

10-1 At least six months prior to the anticipated date of decommissioning, or at a time agreed with the Minister for the Environment, the proponent shall prepare a Decommissioning Plan designed to ensure that the site is left in a suitable condition, with no liability to the State, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Decommissioning Plan shall address:

1 removal or, if appropriate, retention of plant and infrastructure;

2 rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and

3 identification of contaminated areas, including provision of evidence of notification to relevant statutory authorities.

10-2 The proponent shall implement the Decommissioning Plan required by condition 10-1 until such time as the Minister for the Environment on advice of the Environmental Protection Authority determines that decommissioning is complete.

10-3 The proponent shall make the Decommissioning Plan required by condition 10-1 publicly available.

11 Performance Review (Dust and Noise)

11-1 Each three years following the commissioning of the new port facilities, the proponent shall submit a Performance Review report to the Department of Environment:

- to document the outcomes, beneficial or otherwise;
- to review the success of goals, objectives and targets; and

- to evaluate the environmental performance with respect to dust and noise over the three years;

relevant to the following:

1. environmental objectives reported on in Environmental Protection Authority Bulletin 989;

2. proponent's consolidated environmental management commitments documented in schedule 2 of this statement and those arising from the fulfilment of conditions and procedures in this statement;

3. environmental management system environmental performance targets;

4. environmental management programs and plans; and/or

5. environmental performance indicators;

to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

Note: The Environmental Protection Authority may recommend changes and actions to the Minister for the Environment following consideration of the Performance Review report.

Notes

1. The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment over the fulfilment of the requirements of the conditions.
2. The proponent is required to operate in accordance with a Licence for this project issued under the provisions of Part V of the *Environmental Protection Act 1986*.
3. Conditions to manage noise related to this proposal form part of an Approval Notice gazetted pursuant to Regulation 17 of the *Environmental Protection (Noise) Regulations 1997*.

Procedures

1 Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environment for the preparation of written notice to the proponent.

2 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environment.

3 Where a condition lists advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environment.

4 To minimise and ameliorate the adverse impacts of transport noise from the Esperance Port Access Corridor serving the Port of Esperance, the Minister for the Environment and the Minister for Planning and Infrastructure have agreed that the following agencies: Shire of Esperance; Department for Planning and Infrastructure; Esperance Port Authority; Main Roads Western Australia; Public Transport Authority; and Department of Environment will collaborate to facilitate the examination and timely implementation of noise mitigation measures for the Corridor during the implementation of the revised proposal:

a) The above collaboration will occur by way of the Department for Planning and Infrastructure establishing an Esperance Port Access Corridor Working Group to examine and recommend on the implementation of noise mitigation and amelioration measures.

b) The Working Group will have the following membership:

- Department for Planning and Infrastructure;
- Esperance Port Authority;
- Main Roads Western Australia;
- Public Transport Authority;
- Department of Environment; and
- Shire of Esperance.

Note: WestNet Rail, as the lessee of the rail corridor, and the Australian Railroad Group and other users of the Corridor may be involved in providing advice to the Working Group.

c) The Working Group referred to in b) above will, *inter alia,*:

Infrastructure Improvements

i) identify and examine the practicability of potential infrastructure improvements at the Esperance Port with the objective of minimising the number of train movements required between the rail yard and the Esperance Port;

ii) identify and examine the practicability of the potential for infrastructure improvements along the Esperance Port Access Corridor (particularly between the rail yard and the Esperance Port) with emphasis on examining the practicability of staged construction of noise barriers and/or alternative noise attenuating structures;

iii) identify sensitive residences along the Esperance Port Access Corridor (particularly between the rail yard and the Esperance Port) which could be targeted for amelioration measures where the construction of the noise barriers referred in ii) is found to be impracticable;

iv) identify and examine the practicability of road/rail intersections along the Corridor which would benefit from infrastructure improvements such as road bridges;

Operational Improvements

v) examine and recommend alternative safety measures for vehicles and pedestrians at road/rail crossings to avoid the need for sounding train horns; and

vi) examine and recommend logistic and operational improvements to freight activities in order to minimise noise emissions and the number of train movements required between the rail yard and the Esperance Port.

d) The Working Group will substantially complete a report which examines the costs and benefits of the items referred to in c) above and recommend preferred options for the practical and staged implementation of noise mitigation and management measures for the Esperance Port Access Corridor to the Minister for Planning and Infrastructure and the Minister for the Environment for endorsement by the Ministers by 31 December 2005.

e) The Department for Planning and Infrastructure will develop an Implementation Program based on the recommendations of the Working Group's report referred to in d) above by 31 March 2006. The Program will include timeframes for the staged implementation of noise amelioration measures, responsibilities for action, and allocation of resources.

f) The abovementioned Ministers will confer at six-monthly intervals to review progress in addressing the objectives and their implementation referred to in 4 above.

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT; SCIENCE

28 JUL 2005

Schedule 1

The Revised Proposal (Assessment No. 1576)

Esperance Port is situated immediately east to south-east of the town of Esperance and provides a dominant feature in the region (Figure 1).

The upgrading of marine facilities consists of:

1. deepening berths 1 and 2;
2. dredging of the harbour basin and entry channel;
3. construction of a new deepwater berth;
4. reclamation of approximately 15 hectares of land;
5. construction of a new iron ore shed; and
6. installation of associated shiploading and conveyor systems.

The proposal is totally within Port Authority boundaries and port-controlled waters.

The revised proposal includes exporting iron ore from Esperance Port at a rate of 8 million tonnes per annum.

See Table 1 – Key Proposal Characteristics (attached).

Plans (attached)

Figure 1: Proposal location, showing proximity of port to townsite.

Figure 2: Esperance Port Upgrade – Port layout.

Figure 3: Proposed seagrass management unit.

Table 1 - Key Proposal Characteristics (1576)

Element	Description
Dredge the harbour basin and Berths 1 & 2.	• Deepen Berths 1 & 2 from -12.5 metres (reduced level) to -14.7 metres (reduced level). • Deepen harbour basin from approximately -12.8 metres (reduced level) to -15.1 metres (reduced level). • Dredge an area of approximately 50 hectares. • Generate approximately 1,500,000 cubic metres of dredged material.
Extend the existing groyne, relocate the existing breakwater and construct a new breakwater.	• Extend existing 170 metre groyne by an additional 100 metres. • Widen the base of the existing breakwater by approximately 200 metres. • Build a new breakwater, approximately 700 metres long. • Construct a sand apron seaward of the breakwater as a protective measure against erosion.
Reclaim land on the south easterly side of the Port.	• Pump dredged material to behind the new breakwater. • Reclaim approximately 15 hectares.
Construct third berth.	• Construct new deep draft berth and shipping channel along the shoreward side of the existing harbour breakwater. • Deepen new berth and shipping channel to -19 metres (reduced level).
Construct iron ore ship outloading and handling equipment.	• Construct an iron ore shiploader designed to suit Cape Class vessels. • Construct new iron ore conveyor and handling equipment.
Construct an additional iron ore storage shed.	• Construct shed with a capacity of 200,000 tonnes (nominally 300 metres x 60 metres, and 22 metres high).
Timing of construction activities.	• The proposal will commence as soon as all approvals are granted and will take approximately 20 – 24 months to complete. • Dredging and breakwater relocation is expected to take 9 months. • Construction of the third berth and the iron ore shiploader is expected to take 15 months. • Construction of additional iron ore storage and handling facilities is expected to take 12 months.
Ongoing Operation.	• Iron ore delivered to the Port by rail will occur at a rate of up to 8 million tonnes per annum. • Iron ore export from the Port will occur at a rate of up to 8 million tonnes per annum. • The number of iron ore trains from the mine to the rail yard will increase from 14 to an average of 20 iron ore trains per week. • The Esperance Port Authority will accept up to 80 iron ore trains per week (with and without wagons). • Approximately 80 iron ore vessels will enter the Port per year.

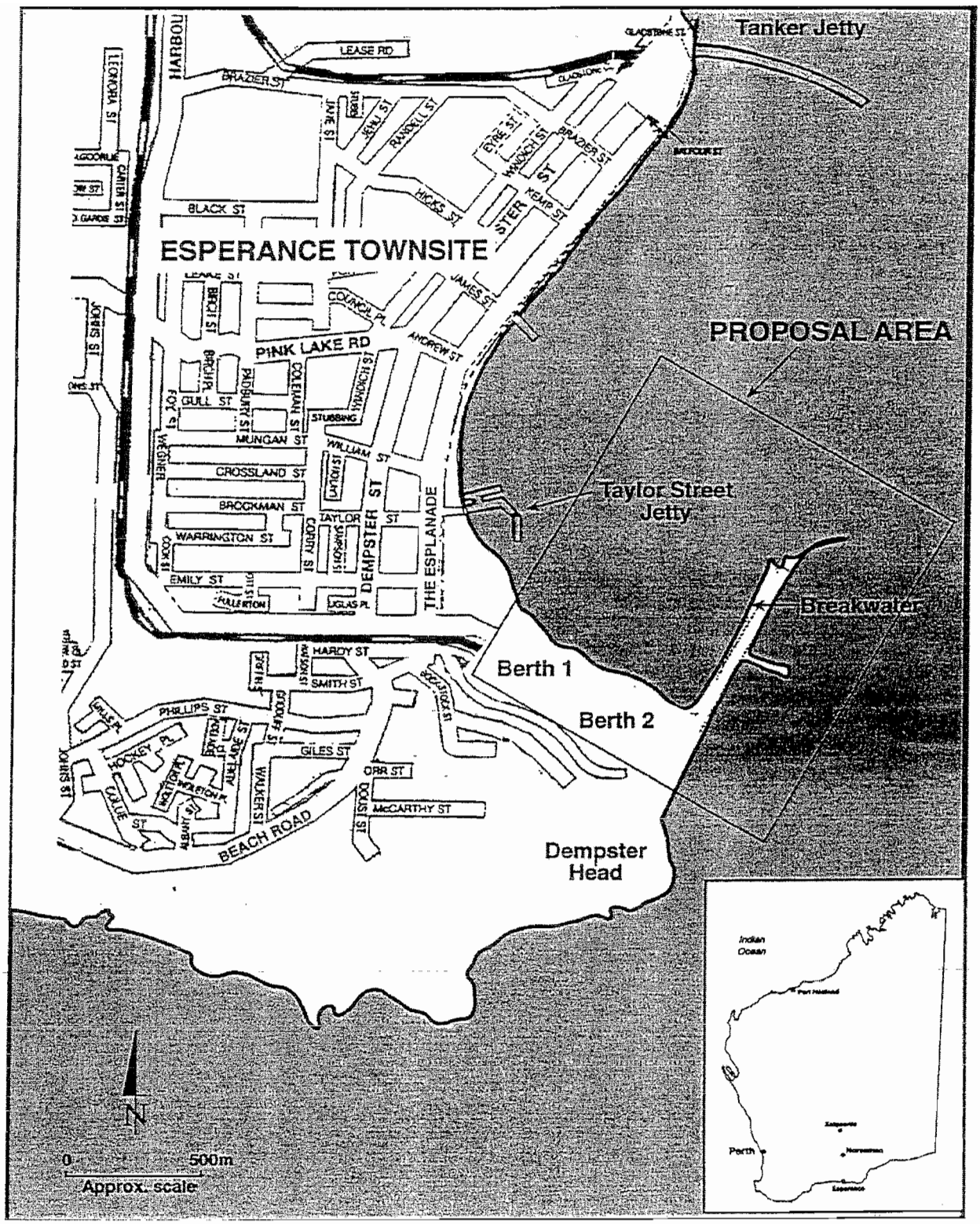

Figure 1: Proposal location, showing proximity of port to townsite.

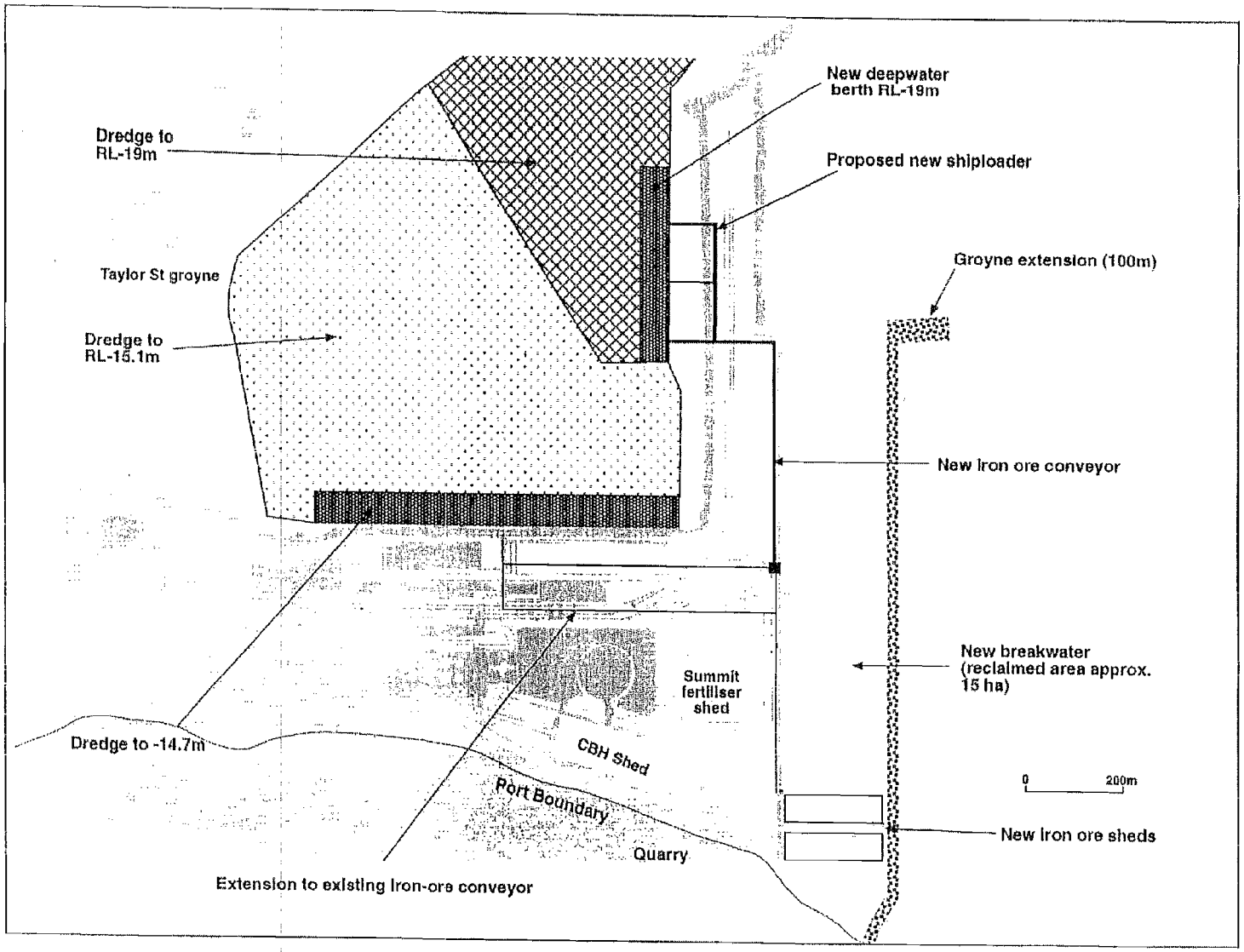

Figure 2: Esperance Port Upgrade – Port layout.

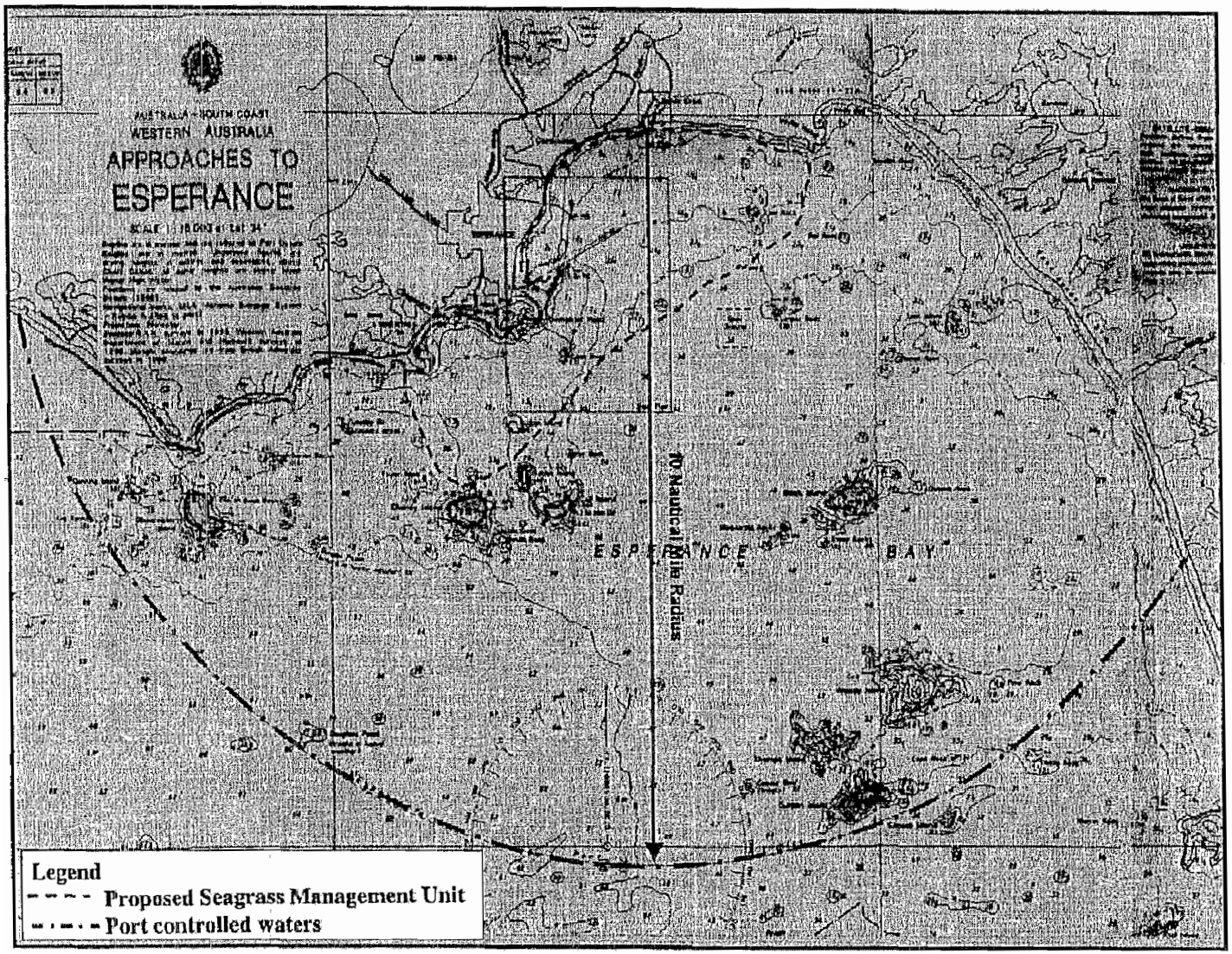

Figure 3: Proposed seagrass management unit.

Schedule 2

Proponent's Consolidated Environmental Management Commitments

October 2000

ESPERANCE PORT - UPGRADING OF MARINE FACILITIES

(Assessment Nos. 1277 & 1576)

ESPERANCE PORT AUTHORITY

PROPONENT'S ENVIRONMENTAL MANAGEMENT COMMITMENTS – ESPERANCE PORT – UPGRADING OF MARINE FACILITIES (Assess. Nos. 1277/1576)

No.	Topic		Action	Objective	Timing	Advice
CONSTRUCTION PHASE (RECLAMATION, DREDGING AND LAND-BASED CONSTRUCTION)						
1.	Environmental Management.	1.1	Prepare an Environmental Management Program (EMP) for construction works. Program to detail; 1. responsibility; 2. potential environmental impacts; 3. management and monitoring programs; 4. incident reporting; and 5. corrective and preventative action.	To manage environmental issues associated with construction activities.	Prior to commencement of construction.	Shire of Esperance
		1.2	Implement EMP.		During construction phase	
2.	Marine water and sediment quality	2.1	Develop a Dredging and Reclamation Management Plan (DRMP). The plan shall address: 1 Dredging and reclamation methods; 2 Assessment of potential impacts; 3 Contamination assessment; 4 Disposal of sediments and slurry; 5 Monitoring plans and water quality criteria; 6 Management measures; and 7 Contingency measures.	Maintain water quality within the inner harbour at pre-construction levels and ensure dredging and reclamation activities have no long term significant impact on overall water quality of the harbour or beneficial users outside the inner harbour	Prior to the commencement of dredging operations.	Shire of Esperance.
		2.2	Implement DRMP.		At commencement of and during dredging and reclamation operations.	

3.	Sediment Quality	3.1	Analyse levels of tri-butyl tin and nickel in all material proposed for beach renourishment.	Confirm tri-butyl tin levels in material. Ensure nickel levels within acceptable limits as specified under the National Environment Protection (Assessment of Site Contamination) Measure.	During disposal or relocation of material.	
		3.2	Report results of sediment analysis		During disposal or relocation of material	
4.	Noise	4.1	Comply with Australian Standard 2436-1981 Guide to Noise Control on Construction, Maintenance and Demolition Sites and Environmental Protection (Noise) Regulations 1997 (EPNR), in accordance with EPA Guidance No. 8, Environmental Noise (1998)	Ensure noise impacts resulting from construction activities comply with statutory requirements.	During construction.	
		4.2	Prepare a construction noise management plan (CNMP) in accordance with EPNR.	Ensure noise impacts resulting from construction activities comply with statutory requirements.	Prior to commencement of construction.	Shire of Esperance
		4.3	Implement CNMP.		During construction	
5.	Air Quality	5.1	Develop a dust management plan for construction activities.	Protect surrounding landuses and environmental values.	Prior to commencement of reclamation and land construction works.	Shire of Esperance
		5.2	Implement dust management plan		During reclamation and other construction activities.	

6.	Visual amenity	6.1	Locate and install new port infrastructure consistent with details provided in section 6.3.1 of the Public Environmental Review (See schedule 2, attachment A).	To minimise visual intrusion.	Prior to construction of land based infrastructure components.	
PORT OPERATIONS						
7.	Environmental Management.	7.1	Review and update existing port operations EMP to incorporate the individual management and/or monitoring plans/programs specified in commitments 8 – 16.	Manage environmental issues identified through the upgrade assessment.	Prior to commissioning of new port facilities.	Shire of Esperance
		7.2	Implement EMP through an Environmental Management System		Operation	
8.	Marine Flora and Fauna	8.1	Prepare a program of on-going biological monitoring. Program to include: 1 Monitoring of potential tri-butyl tin and nickel leaching from reclamation area; and 2 appropriate remedial and contingency measures.	Ensure operational phases of the proposed upgrade have no adverse off-site impacts outside the inner harbour.	Prior to the completion of reclamation works.	Coastcare
		8.2	Implement biological monitoring program.		Immediately post reclamation/ dredging activities at six monthly intervals. Review after 2 years with need for further monitoring dependent on results.	

		8.3	Report results of biological monitoring program.		Annual reporting if unexpected or negative impacts. Otherwise at 2 year review.	
9.	Coastal processes and littoral drift.	9.1	Review and update coastal processes monitoring program and incorporate management plans for long term resolution of beach erosion issues. Program to address: 1. historical aspects of beach erosion; 2. agreed amenity value of beach; 3. specifications for the quantity of suitable material for beach renourishment; 4. identification of suitable source of beach renourishment material; 5. investigation of management measures to address beach erosion; 6. a framework for appropriate management actions; 7. monitoring; and 8. participation of proponent with other relevant agencies to develop and implement management strategy to address beach erosion.	Ensure proposed upgrade: • does not exacerbate existing beach erosion problems; • provides a mechanism for implementing management measures if impacts are noted; • provides a mechanism for the development and implementation of solutions to the historical problem of beach erosion issues at Esperance.	Prior to commencing post-reclamation phase.	Coastcare, Shire of Esperance and Transport WA.
		9.2	Implement coastal processes monitoring program, incorporating management strategies.		During port operations.	

10.	Introduction of foreign species.	10.1	Participate in a recognized program of research co-ordinated by the Centre for Research on Introduced Marine Pests	Maintain diversity of local marine flora and fauna.	Within next 5 years.	CSIRO
		10.2	Adopt strategies consistent with AQIS guidelines for ballast water management.	Minimise risk of introduction of unwanted marine organisms.	Within 6 months following completion of construction activities.	AQIS
		10.3	Continue prohibiting in-water hull cleaning in port controlled waters	Minimise risk of introduction of unwanted marine organisms.	During port operations	
11.	Marine water and sediment quality.	11.1	Review and update ship/shore cargo handling procedures.	Minimise spill incidents resulting from loading operations.	Within 3 months following commencement of dredging operations.	
		11.2	Review and update oil spill management strategy.	Maintain water quality within Esperance Harbour and areas adjacent to shipping channels.	Within 3 months following commencement of increased shipping operations.	State Combat Committee for Oil Spill Management, Transport WA.
12.	Noise (operations)	12.1	Prepare noise monitoring and management plan (NMMP) consistent with any statutory mechanisms and approvals.	Ensure noise impacts resulting from on-going operations comply with statutory requirements.	Prior to commissioning new port facilities	Shire of Esperance
		12.2	Implement NMMP.		During port operations	
13.	Noise (traffic)	13.1	Establish an agreed code of conduct for train drivers and alternative locomotive practices in consultation with Westrail.	Manage impact to noise sensitive premises from increased traffic movement.	Prior to increasing iron-ore throughput.	Westrail (or other relevant rail operator).
		13.2	Implement the agreed Code of Practice		During port operations.	Westrail(or other relevant rail operator).

14.	Air Quality.	14.1	Review and update dust monitoring and management plan for port operations to accommodate upgrade (as required by Works Approval, Licence or Registration).	Protect surrounding landuses and environmental values.	Prior to increasing iron ore throughput.	Shire of Esperance.
		14.2	Implement revised dust monitoring and management plan.		During port operations	
		14.3	Enclose all iron-ore conveyors and transfer towers.	Protect surrounding landuses and environmental values.	During construction	
15.	Community liaison	15.1	Review and update community liaison procedures.	To maintain and develop communication links between the proponent and local residents to ensure the public is aware of project progress through design, commissioning and operational phases.	Prior to increase in iron ore throughput.	Shire of Esperance.
		15.2	Implement community liaison procedures.		Prior to increase in iron ore throughput.	
16.	Public Health and Safety (Traffic management)	16.1	Prepare a traffic management plan in consultation with relevant stakeholders.	Manage impacts resulting from additional rail movements associated with an increased iron ore throughput.	Prior to increased iron ore throughput.	Shire of Esperance, Westrail (or relevant rail authority), MRWA and Transport WA
		16.2	Implement traffic management plan in conjunction with relevant stakeholders.		During operations associated with increase in iron ore throughput.	Shire of Esperance, Westrail (or relevant rail authority), MRWA and Transport WA.

Abbreviations:

AQIS	Australian Quarantine & Inspection Service
CSIRO	Commonwealth Scientific & Industrial Research Organisation
DEP	Department of Environment
MRWA	Main Roads Western Australia

ESPERANCE PORT - UPGRADING OF MARINE FACILITIES

(Assessment Nos. 1277 / 1576)

Extract from Public Environmental Review Document

(Section 6.3.1, Esperance Port Authority, January 2000)

Social Surroundings

6.3.1 Visual Amenity

Dredging of the Esperance Harbour will cause temporary discolouration of the sea around the Port. Suspended sediment associated with the 1988/1989 dredging settled within a few weeks, and harbour waters have remained clear ever since. Photos 6.1 and 6.2 show the discolouration that occurred during the 1988/1989 dredging. Based on past experience, similar discolouration is expected with the current proposal.

The new iron ore handling facilities will impact on coastline views[1]. The impact will be most obvious from the area to the north west of the Port, along The Esplanade.

A dual quadrant (cantilever system) shiploader will be constructed. It will be approximately 30 m high at its highest point. If a traditional shiploader like the current shiploader used at the Port were to be constructed, it would constitute a 40 - 50 m high structure. The dual quadrant shiploader allows for iron ore conveyor and handling equipment to run along the ground (unlike a traditional shiploader which requires this equipment to be up in the air, with greater visual impacts).

The new iron ore shed will be located behind existing Port structures which will serve as an effective screen. The new shed will be similar in appearance to the existing iron ore shed.

The new works will be painted with colours that blend with the surrounding environment.

Refer to the following figures for an impression of the visual impact of the proposed works:

- Figure 6.2 - View of Proposed Berth 3 from Taylor Street Beach;
- Figure 6.3 - View of Proposed Berth 3 from Taylor Street Beach with Cape Class Vessel;
- Figure 6.4 - View of Proposed Berth 3 if Traditional Style Shiploader is Constructed, and
- Figure 6.5 - View of Proposed Iron Ore Infrastructure from Top of Dempster Head.

6.3.2 Recreation

Figure 5.6 shows the primary areas where recreational fishing is currently undertaken around the Port[2]. In particular, there is a popular fishing spot in the Port basin, off the boat shed, to the east of the Port Authority Offices.

Views have been expressed by various local fishermen that the stirring up of the harbour basin during dredging may attract fish to the area and improve recreational fishing in the short term.

Small boat fishing will still be possible provided that it does not encroach on dredging operations. Once Berth 3 has been constructed a 100 m clearance zone around the berth will be enforced for safety reasons. Notices advising of clearance requirement will be installed.

6.3.3 Tourism

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[1] Ie , the new iron ore conveyor and handling equipment and shed, Berth 3, the larger vessels berthing at Berth 3, and the ship loader used at Berth 3.

[2] The Recreational Fisheries Advisory Committee (RFAC) of Esperance was consulted in order to help prepare the map.

Attachment 1 to Statement 681 – Change to Description of Proposal.

Proposal: Esperance Port Authority request to increase iron ore exports from 8 Mtpa to 8.8 Mtpa

Proponent: Esperance Port Authority

Change: In Schedule 1, Key Characteristics Table

From:

Element	Quantities/Description
Ongoing operation	Iron ore delivered to the Port by rail will occur at a rate of up to 8 million tonnes per annum Iron ore export from the Port will occur at a rate of up to 8 million tonnes per annum The number of iron ore trains from the mine to the rail yard will increase from an average of 14 to an average of 20 iron ore trains per week

To:

Element	Quantities/Description
Ongoing operation	Iron ore delivered to the Port by rail will occur at a rate of up to 8.8 million tonnes per annum Iron ore export from the Port will occur at a rate of up to 8.8 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

Dr Paul Vogel
Chairman
Environmental Protection Authority
under delegated authority

Approval date: 18.11.08

Attachment 2 to Statement 681

Change to Proposal

Proposal: Esperance Port – Upgrading of Marine Facilities and increase in Iron Ore Export through Esperance Port to 8 million tonnes per annum

Proponent: Esperance Ports Sea and Land

Change: Increasing iron ore exports through the Port of Esperance from 8.8 million tonnes per annum to 11.5 million tonnes per annum

Key Characteristics Table:

Element	**Description of proposal**	**Description of approved change to proposal (bolded)**
Dredge the harbour basin and Berths 1 and 2	• Deepen Berths 1 and 2 from -12.5 metres (reduced level) to -14.7 meters (reduced level) • Deepen harbour basin from approximately -12.8 metres (reduced level) to 15.1 metres (reduced level) • Dredge an area of approximately 50 hectares • Generate approximately 1,500,000 cubic metres of dredged material	• Deepen Berths 1 and 2 from -12.5 metres (reduced level) to -14.7 meters (reduced level) • Deepen harbour basin from approximately -12.8 metres (reduced level) to 15.1 metres (reduced level) • Dredge an area of approximately 50 hectares • Generate approximately 1,500,000 cubic metres of dredged material
Extend the existing groyne, relocate the existing breakwater and construct a new breakwater	• Extend existing 170 metre groyne by an additional 100 metres • Widen the base of the existing breakwater by approximately 200 metres • Build a new breakwater, approximately 700 metres long • Construct a sand apron seaward of the breakwater as a protective measure against erosion	• Extend existing 170 metre groyne by an additional 100 metres • Widen the base of the existing breakwater by approximately 200 metres • Build a new breakwater, approximately 700 metres long • Construct a sand apron seaward of the breakwater as a protective measure against erosion
Reclaim land on the south easterly side of Esperance Port	• Pump dredged material to behind the new breakwater • Reclaim approximately 15 hectares	• Pump dredged material to behind the new breakwater • Reclaim approximately 15 hectares
Construct third berth	• Construct new deep draft berth and shipping channel along the shoreward side of the existing harbour breakwater • Deepen new berth and shipping channel to -19 metres (reduced level)	• Construct new deep draft berth and shipping channel along the shoreward side of the existing harbour breakwater • Deepen new berth and shipping channel to -19 metres (reduced level)

Element	Description of proposal	Description of approved change to proposal (bolded)
Construct iron ore ship outloading and handling equipment	• Construct an iron ore shiploader designed to suit Cape Class vessels • Construct new iron ore conveyor and handling equipment	• Construct an iron ore shiploader designed to suit Cape Class vessels • Construct new iron ore conveyor and handling equipment
Construct an additional iron ore storage shed	• Construct shed with a capacity of 200,000 tonnes (nominally 300 metres x 60 metres, and 22 metres high)	• Construct shed with a capacity of 200,000 tonnes (nominally 300 metres x 60 metres, and 22 metres high)
Timing of construction activities	• The proposal will commence as soon as all approvals are granted and will take approximately 20 – 24 months to complete • Dredging and breakwater relocation is expected to take 9 months • Construction of the third berth and the iron ore shiploader is expected to take 15 months • Construction of additional iron ore storage and handling facilities is expected to take 12 months	• The proposal will commence as soon as all approvals are granted and will take approximately 20 – 24 months to complete • Dredging and breakwater relocation is expected to take 9 months • Construction of the third berth and the iron ore shiploader is expected to take 15 months • Construction of additional iron ore storage and handling facilities is expected to take 12 months
Ongoing operation	• Iron ore delivered to Esperance Port by rail will occur at a rate of up to 8.8 million tonnes per annum • Iron ore export from Esperance Port will occur at a rate of up to 8.8 million tonnes per annum • The number of iron ore trains from the mine to the rail yard will increase from 18 to an average of 20 iron ore trains per week • Esperance Ports Sea and Land will accept up to 80 iron ore trains per week (with and without wagons) • Approximately 80 iron ore vessels will enter Esperance Port per week	• **Iron ore delivered to Esperance Port by rail will occur at a rate of up to 11.5 million tonnes per annum** • **Iron ore export from Esperance Port will occur at a rate of up to 11.5 million tonnes per annum** • The number of iron ore trains from the mine to the rail yard will increase from 18 to an average of 20 iron ore trains per week • Esperance Ports Sea and Land will accept up to 80 iron ore trains per week (with and without wagons) • Approximately 80 iron ore vessels will enter Esperance Port per week

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 6 September 2010