



Statement No.

MINISTER FOR THE ENVIRONMENT;
LABOUR RELATIONS

000490

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

INDUSTRIAL INFRASTRUCTURE AND HARBOUR DEVELOPMENT, JERVOISE BAY

Proposal: To construct industrial infrastructure and a Southern Harbour in Jervoise Bay south of the Northern Harbour precinct and including the Marine Support Facility, as documented in schedule 1 of this statement.

The proposal involves reclamation of waterfront land for construction of berths, wharves and onshore fabrication areas, including associated servicing; construction of an island breakwater, dredging of an approach channel and harbour basin; clearing and excavation of land either side of Cockburn Road to provide freehold lots for development of support industry inclusive of associated services; and the realignment of Cockburn Road via Russell Road.

Proponent: Department of Commerce and Trade

Proponent Address: P O Box 7234, Cloisters' Square, PERTH, WA 6850

Assessment Number: 1091

Report of the Environmental Protection Authority: Bulletin 908

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

1 Implementation

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

1-2 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

1-3 Where the proponent seeks to change any aspect of the proposal as documented in schedule 1 of this statement in any way that the Minister for the Environment determines, on advice of the Environmental Protection Authority, is not substantial, those changes may be effected.

Published on

24 DEC 1998

2 Proponent Commitments

- 2-1 The proponent shall implement the consolidated environmental management commitments documented in schedule 2 of this statement.
- 2-2 The proponent shall implement subsequent environmental management commitments which the proponent makes as part of the fulfilment of conditions and procedures in this statement.

3 Environmental Management System

- 3-1 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 construction, the proponent shall demonstrate to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection 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:
 - (1) planning to meet environmental requirements;
 - (2) implementation and operation of actions to meet environmental requirements;
 - (3) measurement and evaluation of environmental performance; and
 - 3 Review and improvement of environmental outcomes.
- 3-2 The proponent shall implement the environmental management system referred to in condition 3-1.

4 Seagrass

- 4-1 Within the 10 year period following the commencement of construction, the proponent shall revegetate with *Posidonia sinuosa* or other appropriate seagrass species an area within Cockburn Sound that has a reasonable chance of survival and is equivalent to the area of seagrass that will be lost as a direct consequence of the proposal (i.e. 2.1 hectares), to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.
- 4-2 In consultation with the Fremantle Port Authority and the Department of Environmental Protection, the proponent shall identify an appropriate area within Cockburn Sound for the revegetation of seagrass referred to in condition 4-1.
- 4-3 Within 12 months following the formal authority issued to the decision-making authorities under section 45(7) of the *Environmental Protection Act 1986*, the proponent shall prepare a Seagrass Management Plan outlining how conditions 4-1 and 4-2 will be complied with, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.
- 4-4 The proponent shall implement the Seagrass Management Plan required by condition 4-3, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

5 Water Quality

- 5-1 Prior to and during construction, and during operation, the proponent shall monitor water quality both within and outside the harbour (including Jervoise Bay), to demonstrate compliance with water quality criteria as they are developed over time, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.
- 5-2 Prior to construction, the proponent shall prepare a Water Quality Contingency Plan which identifies measures to be taken to improve water quality in the event that monitoring referred to in condition 5-1 demonstrates that water quality criteria are exceeded or are likely to be exceeded as a result of the construction and operation of the harbour, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.
- 5-3 The proponent shall implement the Water Quality Contingency Plan required by condition 5-2.

6 Dredging and Spoil Management Plan

- 6-1 At least three months prior to commencement of dredging between -12m and -14.7m Chart Datum, the proponent shall prepare a Dredging and Spoil Management Plan in consultation with Fisheries WA, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection and the Fremantle Port Authority.

This Plan shall address:

- 1 alternative dredging methods;
- 2 alternative spoil containment and/or disposal options; and
- 3 sediment, turbidity, and spoil return water control.

- 6-2 The proponent shall implement the Dredging and Spoil Management Plan required by condition 6-1.

7 Public Access Management Plan

- 7-1 Prior to commencement of construction, the proponent shall prepare a Public Access Management Plan which makes provision for public access to the breakwaters and harbour waters, subject to public safety, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection and the Fremantle Port Authority.
- 7-2 The proponent shall implement the Public Access Management Plan required by condition 7-1.

8 Noise Management Plan

- 8-1 Prior to construction of the Cockburn Road realignment, the proponent shall prepare a Noise Management Plan to protect the amenity of nearby residents and other sensitive sites (e.g. South Coogee Primary School) from noise and vibration impacts resulting from activities associated with construction and operation, by ensuring that noise levels comply with or are consistent with the Environmental Protection (Noise) Regulations

1997, to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

This Plan shall address:

- 1 the location, dimensions and form of noise barriers to be constructed, if appropriate;
- 2 the sound power levels for equipment to be used, and details of acoustical treatment to be applied;
- 3 special procedures necessary to restrict activities under weather conditions which increase noise levels in the residential area; and
- 4 routine operating procedures to be adopted for particular operations to control noise.

8-2 The proponent shall implement the Noise Management Plan required by condition 8-1.

8-3 The proponent shall make the Noise Management Plan required by condition 8-1 available for public comment for a period of two weeks prior to the Environmental Protection Authority finalising its consideration of the Plan.

9 Performance Review

9-1 Each three years following the commencement of construction, the proponent shall submit a Performance Review to the Department of Environmental Protection:

- to document the outcomes, beneficial or otherwise;
- to review the success of goals, objectives and targets; and
- to evaluate the environmental performance over the three years;

relevant to the following:

- 1 environmental objectives reported on in Environmental Protection Authority Bulletin 908;
- 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 management targets;
- 4 environmental management programs and plans; and/or
- 5 environmental performance indicators;

to the requirements of the Environmental Protection Authority on advice of the Department of Environmental Protection.

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

10 Proponent

- 10-1 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 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 in respect of the proposal.
- 10-2 Any request for the exercise of that power of the Minister referred to in condition 10-1 shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the proposal in accordance with the conditions and procedures set out in the statement.
- 10-3 The proponent shall notify the Department of Environmental Protection of any change of proponent contact name and address within 30 days of such change.

11 Commencement

- 11-1 The proponent shall provide evidence to the Minister for the Environment within five years of the date of this statement that the proposal has been substantially commenced.
- 11-2 Where the proposal has not been substantially commenced within five years of the date of this statement, the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment will determine any question as to whether the proposal has been substantially commenced.
- 11-3 The proponent shall make application to the Minister for the Environment for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement at least six months prior to the expiration of the five year period referred to in conditions 11-1 and 11-2.
- 11-4 Where the proponent demonstrates to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority that the environmental parameters of the proposal have not changed significantly, then the Minister may grant an extension not exceeding five years for the substantial commencement of the proposal.

12 Compliance Auditing

- 12-1 The proponent shall submit periodic Performance and Compliance Reports, in accordance with an audit program prepared in consultation between the proponent and the Department of Environmental Protection.
- 12-2 Unless otherwise specified, the Chief Executive Officer of the Department of Environmental Protection is responsible for assessing compliance with the conditions, procedures and commitments contained in this statement and for issuing formal clearances.
- 12-3 Where compliance with any condition, procedure or commitment is in dispute, the matter will be determined by the Minister for the Environment.

CHERYL EDWARDES (Mrs) MLA
MINISTER FOR THE ENVIRONMENT

24 DEC 1998

Schedule 1

The Proposal (1091)

The proposal consists of the development of industrial infrastructure and a Southern Harbour in Jervis Bay, south of the existing Northern Harbour precinct and including the Marine Support Facility.

Key Characteristics Table

Proposal Characteristic	Description
Breakwaters	<ul style="list-style-type: none"> • Offshore breakwater approximately 2.05 kilometres long. • Southern breakwater approximately 1.25 kilometres long. • Total material approximately 1.3 million cubic metres. • Material will be sourced from excavation operations during construction of the onshore industrial estate together with local quarry sources.
Marine structures	<ul style="list-style-type: none"> • 350 metres long wet berth, piled with concrete deck. • 80 metres long load out wharfs, sheet piled.
Dredging works	<ul style="list-style-type: none"> • Channel - 2.8 kilometres in length, 164 metres wide, depth -14.7 m Chart Datum (CD), although dredging will initially only be to -12 m CD. • Channel area - 46 hectares. • Entrance basin depth -14.7m CD. • Wharf area depth -12.0m CD. • Total dredge material approximately 6.2 million cubic metres (for land reclamation).
Harbour	<ul style="list-style-type: none"> • Enclosed water volume 14.5 million cubic metres. • Water surface area of 131 hectares. • Southern entrance approximately 300 metres wide. • Northern entrance approximately 180 metres wide. • the existing Marine Support Facility.

Reclamation of waterfront land	<ul style="list-style-type: none"> • Approximately 60 hectares in area, extending over 900 metres of coastline south from existing offshore construction yard and up to 950 metres offshore. • Approximately 7.5 million cubic metres of fill required for reclamation of waterfront land for construction of berths, wharves and onshore fabrication areas. This fill will comprise approximately 4.0 million cubic metres of excavated material from the onshore industrial estate with the remainder of fill to come from dredging activities. • The reclaimed area will be levelled and compacted, grading from a waterfront elevation of 3.5m AHD to approx 5.0m AHD at the landward extent of the common user area.
Onshore land development	<ul style="list-style-type: none"> • Approximately 80 hectares. • Clearing, excavation and contouring of land immediately east of the reclaimed waterfront area for development of associated onshore industrial lots. • Excavation material approximately 4 million cubic metres.
Activities	<ul style="list-style-type: none"> • Provision of a sheltered waterway for companies operating on the common-user shorefront area and adjacent freehold sites. Type of activity anticipated is the supply of modules and manufactured components to the oil, gas and resource industry sectors. There is the potential for six loadouts per year, involving a large barge or heavy lift vessel, accompanied by four tugs, in the harbour for approximately three days. • Facilitation of the fitout or refit contracts on Floating Production Storage and Offtake (FPSO) vessels. • The proposal does not include a future dry dock, a casting basin for concrete gravity structures or "scrape and paint" jobs on vessels.
Realignment of Cockburn Road	<ul style="list-style-type: none"> • Initially, single carriage upgrade of Russell Road, construction of single carriage Henderson perimeter/southern link road and construction of new carriageway on Rockingham Road. Ultimately construction of dual carriageway between Mayor Road and Rockingham Road via Russell Road.
Restricted access to waterway	<ul style="list-style-type: none"> • The public will have restricted access for approximately 18 days of the year during loadouts.

**Proponent's Consolidated Environmental Management
Commitments**

18 December 1998

**INDUSTRIAL INFRASTRUCTURE AND
HARBOUR DEVELOPMENT
JERVOISE BAY (1091)**

Department of Commerce and Trade

Proponent's Commitments - Industrial Infrastructure and Harbour Development, Jervoise Bay (1091)

Commitment	Objective	Action	Timing	Whose Advice	Measurement/ Compliance Criteria
1. Prepare and implement an Environmental Management Plan (EMP) for construction phase of the project.	To manage the marine construction works, land clearing, excavation and reclamation so as to minimise environmental impact.	By addressing all issues of construction which potentially impact on the environment including: <ul style="list-style-type: none"> • noise; • dust; • turbidity; and • spoil return water. <p>A risk assessment and management approach will be incorporated in the EMP (Construction).</p>	Completion and approval of the EMP (Construction) before commencement of construction.	Department of Environmental Protection (DEP) City of Cockburn (CoC) Town of Kwinana (ToK)	Acceptance of EMP (Construction). Performance and Compliance Report.
2. Prepare and implement a dredge management plan.	To manage the impact of turbidity on seagrasses	To prepare and implement a dredge management plan. The plan should include options for spoil disposal.	Prior to commencement of construction.	DEP	
3. Undertake further wave modelling studies prior to construction, of the island breakwater.	To ensure that no adverse effect on coastal processes and beach stability on Woodman Point are experienced.	To modify design of breakwaters if required.	Prior to commencement of construction.	DEP DoT CoC	
4. Minimise dust, noise and traffic during construction.	To avoid undue disturbance to local residents and traffic movement during construction.	Preparation of plans within the EMP (Construction) for management of dust, noise and traffic throughout the construction period. The EMP (Construction) will also include the designated transport route and hours of work for the breakwater limestone supply. These will also be incorporated in the limestone supply contract.	Completion and approval of the EMP (Construction) before commencement of construction.	DEP CoC ToK	Performance and Compliance Report.

Proponent's Commitments - Industrial Infrastructure and Harbour Development, Jervoise Bay (1091)

Commitment	Objective	Action	Timing	Whose Advice	Measurement/ Compliance Criteria
<p>5. Prepare Environmental Management Plan (EMP) for the day to day operations of the harbour and the shorefront industrial estate.</p>	<p>To manage the ongoing operation of the harbour and the shorefront industrial estate in a manner which results in minimum environmental impact.</p>	<p>By addressing all operational issues including:</p> <ul style="list-style-type: none"> • monitoring requirements; • clean-up and containment procedures; • stormwater and waste management; • breakwater maintenance; • navigation issues; and • erosion. <p>The stormwater containment measures will include permeable drainage pits with access points for cleaning and inspection. A regular stormwater system maintenance schedule will be implemented and direct discharge of any other form of waste stream into the harbour will be prohibited.</p> <p>A risk assessment and management approach will be incorporated into the EMP (Operations) which will include:</p> <ul style="list-style-type: none"> • AQIS ballast water management procedures; • contingency plan for the treatment and clean up of oil and other spills to control and mitigate possible degradation in water and sediment quality; • a coastal monitoring plan outlining options for any sand bypassing remedial work; and • annual reviews of aerial photographs taken by the Department of Land Administration to determine any trends in erosion or accretion. 	<p>Completion and approval of the EMP (Operations) before commencement of the harbour and shorefront industrial estate operations.</p>	<p>DEP Department of Transport (DoT) Fremantle Port Authority (FPA) CoC</p>	<p>Acceptance of EMP (Operations) Performance and Compliance Report for 5 year post-construction Annual Monitoring Reports</p>

Proponent's Commitments - Industrial Infrastructure and Harbour Development, Jervis Bay (1091)

Commitment	Objective	Action	Timing	Whose Advice	Measurement/ Compliance Criteria
6. Monitor marine water quality in the Jervis Bay region.	To assess the impact of the proposal on marine water quality in the Jervis Bay region.	<p>The proponent will undertake a water quality monitoring programme. The programme will be designed to measure the impact of the harbour on the water quality of the region. The programme will include sampling for, or measurement of:</p> <ul style="list-style-type: none"> • light penetration; • phytoplankton (including screening for toxic phytoplankton species) • total nitrogen; • dissolved inorganic nitrogen; • chlorophyll a; • dissolved oxygen concentration; and • temperature and salinity profiles. <p>Monitoring surveys should be conducted over the summer months. The programme will be detailed in consultation with the DEP as part of the preparation of the marine Environmental Management Plan. The target water and sediment quality criteria for the harbour will be determined in consultation with the DEP when the substantially revised ANZECC water and sediment quality guidelines are released (due late 1998).</p>	Programme to commence prior to construction and ongoing through the first five years of operations.	DEP	Annual monitoring reports, for 5 years post-construction. Immediate reporting of significant changes.
7. Monitor sediment quality in the Jervis Bay region, including the harbour.	To assess the impact of the proposal on sediment quality in the Jervis Bay region.	<p>Implementation of a sediment quality monitoring programme which includes annual measurements of:</p> <ul style="list-style-type: none"> • heavy metals; • tributyltin (TBT) compounds; and • organic content. 	Programme to commence prior to construction and ongoing through the first five years of operation.	DEP	Annual monitoring reports, for 5 years post-construction. Immediate reporting of significant changes.

Proponent's Commitments - Industrial Infrastructure and Harbour Development, Jervis Bay (1091)

Commitment	Objective	Action	Timing	Whose Advice	Measurement/ Compliance Criteria
8. To adopt best practise in respect of management of TBT.	To reduce potential impacts associated with shipping activities.	Preparation of specific management plans for control of TBT accordance with the latest ANZECC guidelines.	Complete management plan before commencement of harbour operations.	DEP FPA	Acceptance of reports.
9. To erect signs at the commencement of construction that the taking of edible shellfish and other filter feeding marine life will be prohibited from harbour waters.	To protect the public from the risk of eating contaminated shellfish.	Erection of signs prior to and immediately following construction.	Signs to be erected prior to commencement of development and following breakwater and reclamation construction.	CoC Health Dept	Performance and Compliance Report.
10. Control access to harbour waters by general public.	To protect general public from risk during the movement of large vessels.	Preparation of harbour management plan as part of EMP (Operations). Access to the harbour waters by the general public will be controlled during the movement of large vessels. This is to protect the public from risk and will be addressed in the Environmental Management Plan for construction and operations.	Completion and approval prior to commencement of harbour operations.	FPA DoT	Acceptance of EMP (Operations).
11. Provide appropriate management to ensure safe passage for shipping and small craft.	To avoid impact on commercial and recreation vessel movements.	By management of construction, dredging works and harbour operations.	Navigation measures and equipment to be in place during construction and harbour operations.	FPA DoT	Acceptance of EMP (Construction) Acceptance of EMP (Operations)
12. Prepare Environmental Management Plan (EMP) for construction phase of the revised road network.	To manage the road construction works, land clearing and drainage so as to minimise environmental impact.	By addressing all issues of construction which potentially impact on the environment.	Completion and approval of the EMP before commencement of the road construction.	DEP Conservation and Land Management (CALM) CoC ToK	Acceptance of EMP. Performance and Compliance Report.

Proponent's Commitments - Industrial Infrastructure and Harbour Development, Jervis Bay (1091)

Commitment	Objective	Action	Timing	Whose Advice	Measurement/ Compliance Criteria
13. Seek to progress transport corridor planning in the locality with the aim of ensuring isolated bushland contiguous with Beeliar Regional Park is available for consolidation into the Park.	To improve the area to boundary ratio of Beeliar Regional Park and to allow land currently zoned for industrial use adjacent to Mt Brown to be consolidated into the Park for conservation purposes.	Further liaison with LandCorp, Alcoa, Department of Transport, LGAs and other interested stakeholders.	To be finalised by the completion of the road construction.	DEP DoT CoC ToK	Performance and Compliance Report.
14. Initiate the incorporation of areas of the highway reservation south of Russell Road into the Beeliar Regional Park.	To identify areas of the highway reservation, surplus to requirements for the Henderson southern link and perimeter road as detailed in the revised proposal, and incorporating surplus reserve land into the adjacent Beeliar Park.	Formal amendment of the MRS reservation and Land Act/ CALM Act reservation	Within two years of commencement of construction.	EPA DEP WAPC DoT CALM	Performance and Compliance Report.
15. Buffer to Lake Coogee	To protect Lake Coogee from further reductions in water quality due to the proximity of the highway.	Investigate, during detailed design, options of reducing carriageway separations and other design mechanisms with the aim of achieving a minimum buffer width of 50 metres to Lake Coogee.	Prior to commencement of construction.	DEP MRWA CALM CoC	

Proponent's Commitments - Industrial Infrastructure and Harbour Development, Jervoise Bay (1091)

Commitment	Objective	Action	Timing	Whose Advice	Measurement/ Compliance Criteria
16. Comprehensive landscaping and rehabilitation of the surplus highway reserve land.	To improve the ecological capacity of the surplus reserve, reduce weed infestation and improve condition of existing vegetation after construction is complete.	Rehabilitation and Landscape plan to be prepared as part of the EMP for road construction management. Provision of community access via a dual use pathway and the provision of viewing platforms on the foreshore of Lake Coogee.	Completion and approval of EMP before commencement of road construction. To be implemented after road construction is complete.	DEP CALM ToK CoC	Performance and Compliance Report
17. Lake Coogee to be protected by closed drainage system and a water quality monitoring.	To protect Lake Coogee from further reductions in water quality due to the proximity of the highway.	Detailed drainage design, monitoring and mitigation programme to be documented in the Environmental Management Plan. The drainage design and monitoring programme will include vegetated detention basins and a closed drainage system, and provide an entrapment to protect the Lake from accidental spillage. Baseline data will be collected prior to the road alignment and control data obtained from other wetlands. A mitigation management plan will be included to address adverse impacts of construction or operation related to Lake Coogee.	Completion and approval of EMP prior to the commencement of road construction.	DEP	Performance and Compliance Report.
18. Drainage controls to be put in place in the Henderson southern link and perimeter road and new Rockingham Road carriageway.	To protect Brownman Swamps and Lake Mt. Brown from reductions in water quality due to the proximity of the roads.	Detailed drainage design and monitoring programme to be documented in the EMP.	Completion and approval of EMP prior to the commencement of road construction.	DEP Water and Rivers Commission DoT	Performance and Compliance Report.

Proponent's Commitments - Industrial Infrastructure and Harbour Development, Jervoise Bay (1091)

Commitment	Objective	Action	Timing	Whose Advice	Measurement/ Compliance Criteria
19. Declared rare flora (DRF) survey to be carried out in spring prior to any vegetation clearing and management and rehabilitation plan prepared as required.	To ensure that the conservation status of any DRF species is not diminished by the development.	Complete DRF survey then, as required, obtain Ministerial approval to "take" rare flora under Section 23 (f) of the Wildlife Conservation Act 1950 and develop/implement a management and rehabilitation plan as required.	Prior to commencement of vegetation clearing.	CALM DEP	Performance and Compliance Report.
20. Develop and implement a strategy for the treatment of subsurface artefactual or skeletal material.	To respond in an appropriate way to the uncovering of any subsurface artefactual or skeletal material during onshore earthworks	Develop and implement the strategy as part of the EMP (Construction) and the EMP for roadworks.	Completion and approval of the EMP's prior to commencement of construction or roadworks.	Department of Aboriginal Affairs	Performance and Compliance Report.
21. Catchment management		DCT participate with DEP and WRC in consultation with local government to develop and implement a catchment management strategy for reducing contaminants (ie nutrients) in groundwater.			
22. DRF management plan (genetic material).		DCT in consultation with CALM and the City of Cockburn will recover significant genetic material (eg seeds) from the portion of M91 to be developed, for use in other portions of M91 or M92 as appropriate.			
23. MRWA criteria.		Cockburn Road realignment will comply with appropriate MRWA criteria.			

Proponent's Commitments - Industrial Infrastructure and Harbour Development, Jervis Bay (1091)

Commitment	Objective	Action	Timing	Whose Advice	Measurement/ Compliance Criteria
24. Groundwater Recovery Plan	To improve water quality in Jervis Bay.	<ul style="list-style-type: none"> • Prepare the Groundwater Recovery Plan which includes: <ul style="list-style-type: none"> – intervention in the flow of groundwater into the Northern Harbour; – denitrification of the diverted groundwater; and – disposal of the denitrified groundwater, in consultation with Weston Bioproducts and Government agencies including the Water Corporation. • Implement the Groundwater Recovery Plan. 	<p>Prepare the Plan - within 6 months of the final authority notice.</p> <p>Implement the Plan - as discussed in consultation with the DEP</p>	DEP WRC	
25. Conservation and Recreation Enhancement Plan	Enhance and upgrade the conservation value and access to the public of Woodman Point Reserve and Mt Brown and Brownman Swamps in Beeliar Regional Park.	<ul style="list-style-type: none"> • Prepare an Enhancement Plan in consultation with the community and local government. • Implement the Enhancement Plan. 	<p>Prepare the Plan - within 6 months of the final authority notice.</p> <p>Implement the Plan - within 3 years of the final authority notice.</p>	DEP CALM	

Attachment to Statement 490

Change to Description of Proposal

Proposal: Industrial Infrastructure and Harbour Development, Jervoise Bay

Proponent: Department of Industry and Resources

Change: construction of new infrastructure and deepening of harbour

Features of approved Proposal:

Element	Quantities/Description
Channel depth including entrance basin	-14.7m chart datum
Marine structures	Long wet berth, load out wharfs

Features of change to Proposal:

Element	Quantities/Description
Channel depth including entrance basin	Not more than -18m chart datum
Marine structures	Long wet berth, load out wharfs, floating dock

Approval Date: 14.09.06

Attachment 1 to Statement 490

Change to Proposal

Proposal: Industrial Infrastructure and Harbour Development, Jervoise Bay

Proponent: Department of State Development (formerly Department of Industry and Resources)

Change: Construction of wharf infrastructure and associated dredging.

Features of approved Proposal:

Element	Description
Marine Structures	<ul style="list-style-type: none">• 350 metres long wet berth, piled with concrete deck.• 80 metres long load out wharfs, sheet piled.
Dredging Works	<ul style="list-style-type: none">• Total dredge material approximately 720,000 cubic meters.

Features of changed Proposal:

Element	Description
Marine Structures	<ul style="list-style-type: none">• 350 metre long wet berth, piled with concrete deck.• 80 metre long load out wharfs, sheet piled.• 85 metre long stern wharf.• 250 metre long berthing wharf constructed as either;<ul style="list-style-type: none">(a) <u>Dolphin Berthing Wharf</u>: breasting dolphins, suitable fendering and shore bollards; or(b) <u>Land Backed Berthing Wharf</u>: sheet piled, land backed, constructed of compacted fill material, covered by a hard surface.
Dredging Works	<ul style="list-style-type: none">• Total dredge material approximately 940,000 cubic meters.

Dr Paul Vogel
Chairman
Environmental Protection Authority
under delegated authority

Approval date: 16.3.09

Attachment 2 to Ministerial Statement 490

Change to proposal approved under section 45C of the *Environmental Protection Act 1986*

This Attachment 2 replaces Schedule 1, Attachment and Attachment 1 of Ministerial Statement 490

Proposal: Industrial Infrastructure and Harbour Development, Jervoise Bay

Proponent: Department of Jobs, Tourism, Science and Innovation

Changes:

- Construction of a 200 metre x 50 metre piled land backed wharf
- Up to 125 metre extension of the 350 metre long land backed wharf to 475 metres (AMC 1)
- Deck infill of AMC 2 by piling and cover with a concrete slab

Table 1: Summary of the Proposal

Proposal Title	Industrial Infrastructure and Harbour Development, Jervoise Bay
Short Description	The proposal consists of the development of industrial infrastructure and a Southern Harbour in Jervoise Bay, south of the existing Northern Harbour precinct and including the Marine Support Facility.

Table 2: Location and authorised extent of physical and operational elements

Element	• Previously Authorised Extent	Authorised Extent
Breakwaters	<ul style="list-style-type: none"> • Offshore Breakwater will be approximately 1.3 kilometres in length of which 1.1 kilometres will be new construction • Southern Breakwater approximately 500 metres long • Total material approximately 0.6 million cubic metres • Material will be sourced from local quarries 	<ul style="list-style-type: none"> • Offshore Breakwater will be approximately 1.3 kilometres in length of which 1.1 kilometres will be new construction • Southern Breakwater approximately 500 metres long • Total material approximately 0.6 million cubic metres • Material will be sourced from local quarries
Marine structures	<ul style="list-style-type: none"> • 350 metre long wet berth, piled with concrete deck • 80 metre long loadout wharfs, sheet piled. • floating dock • 85 metre long stern wharf • 250 metre long berthing wharf constructed as either; 	<ul style="list-style-type: none"> • Up to 475 metre piled land backed wharf • 80 metre long loadout wharfs, sheet piled. • floating dock • 85 metre long stern wharf • 250 metre long berthing wharf constructed as either;

Element	• Previously Authorised Extent	Authorised Extent
	<ul style="list-style-type: none"> (a) <u>Dolphin berthing wharf</u>: breasting dolphins, suitable fendering and shore bollards; or (b) <u>Land backed berthing wharf</u>: sheet piled, land backed, constructed of compacted fill material, covered by a hard surface. 	<ul style="list-style-type: none"> (a) <u>Dolphin berthing wharf</u>: breasting dolphins, suitable fendering and shore bollards; or (b) <u>Land backed berthing wharf</u>: sheet piled, land backed, constructed of compacted fill material, covered by a hard surface. <ul style="list-style-type: none"> • 200 metre x 50 metre piled land backed wharf • Deck infill of AMC 2 by piling and cover with a concrete slab
Dredging works	<ul style="list-style-type: none"> • Harbour Access by dredging the 9.5 metre deep existing Jervoise / Medina Channel - 2.3 kilometres in length, 160 metres wide, depth - 18 metres Chart Datum (CD). • Channel Area is to be 37 hectares. • Entrance Basin depth is to be - 18 metres CD. • Harbour Basin is to be - 10 metres CD. • Wharf Area depth is to be - 12.0 metres CD. • Total dredge material approximately 940,000 cubic meters. 	<ul style="list-style-type: none"> • Harbour Access by dredging the 9.5 metre deep existing Jervoise / Medina Channel - 2.3 kilometres in length, 160 metres wide, depth - 18 metres Chart Datum (CD). • Channel Area is to be 37 hectares. • Entrance Basin depth is to be - 18 metres CD. • Harbour Basin is to be - 10 metres CD. • Wharf Area depth is to be - 12.0 metres CD. • Total dredge material approximately 940,000 cubic meters.
Harbour	<ul style="list-style-type: none"> • Enclosed water volume 5.6 million cubic metres • Water surface area of 56 hectares • Southern Entrance approximately 170 metres wide • Northern Entrance approximately 100 metres wide • Includes the existing Marine Support Facility 	<ul style="list-style-type: none"> • Enclosed water volume 5.6 million cubic metres • Water surface area of 56 hectares • Southern Entrance approximately 170 metres wide • Northern Entrance approximately 100 metres wide • Includes the existing Marine Support Facility
Reclamation of waterfront land	<ul style="list-style-type: none"> • Reclamation for waterfront land is to be approximately 29 hectares in area, extending over 900 metres of coastline south from the existing offshore construction yard and up to 600 metres offshore. • Approximately 2.7 million cubic metres of fill is required for reclamation of waterfront land. This fill will comprise approximately 2.1 million cubic metres of excavated material from the onshore industrial estate area 	<ul style="list-style-type: none"> • Reclamation for waterfront land is to be approximately 29 hectares in area, extending over 900 metres of coastline south from the existing offshore construction yard and up to 600 metres offshore. • Approximately 2.7 million cubic metres of fill is required for reclamation of waterfront land. This fill will comprise approximately 2.1 million cubic metres of excavated material from the onshore industrial estate area

Element	Previously Authorised Extent	Authorised Extent
	<ul style="list-style-type: none"> • with the remainder of the fill to come from dredging. • The reclaimed area will be levelled and compacted and graded to an average height above chart datum of 4.5 metres AHD over the common user area. 	<ul style="list-style-type: none"> • with the remainder of the fill to come from dredging. • The reclaimed area will be levelled and compacted and graded to an average height above chart datum of 4.5 metres AHD over the common user area
Onshore land development	<ul style="list-style-type: none"> • The onshore land development will have an area of approximately 80 hectares- • Clearing, excavation and contouring of land immediately east of the reclaimed area for development of associated onshore industrial lots. • Excavation material approximately 2.1 million cubic metres 	<ul style="list-style-type: none"> • The onshore land development will have an area of approximately 80 hectares- • Clearing, excavation and contouring of land immediately east of the reclaimed area for development of associated onshore industrial lots. • Excavation material approximately 2.1 million cubic metres
Activities	<ul style="list-style-type: none"> • Provision of a sheltered waterway for companies operating on the common-user shorefront area and adjacent freehold sites. Type of activity anticipated is the supply of modules and manufactured components to the oil, gas and resource industry sectors. There is the potential for six loadouts per year, involving a large barge or heavy lift vessel, accompanied by four tugs, in the harbour for approximately three days. • Facilitation of the fitout or refit contracts on Floating Production Storage and Offtake (FPSO) vessels. • The proposal does not include a future dry dock, a casting basin for concrete gravity structures or "scrape and paint" jobs on vessels. 	<ul style="list-style-type: none"> • Provision of a sheltered waterway for companies operating on the common-user shorefront area and adjacent freehold sites. Type of activity anticipated is the supply of modules and manufactured components to the oil, gas and resource industry sectors. There is the potential for six loadouts per year, involving a large barge or heavy lift vessel, accompanied by four tugs, in the harbour for approximately three days. • Facilitation of the fitout or refit contracts on Floating Production Storage and Offtake (FPSO) vessels. • The proposal does not include a future dry dock, a casting basin for concrete gravity structures or "scrape and paint" jobs on vessels.
Realignment of Cockburn Road	Initially, single carriage upgrade of Russell Road, construction of single carriage Henderson perimeter/ southern link road and construction of new carriageway on Rockingham Road. Ultimately construction of dual carriageway between Mayor Road and Rockingham Road via Russell Road.	Initially, single carriage upgrade of Russell Road, construction of single carriage Henderson perimeter/ southern link road and construction of new carriageway on Rockingham Road. Ultimately construction of dual carriageway between Mayor Road and Rockingham Road via Russell Road.

Element	• Previously Authorised Extent	Authorised Extent
Restricted access to waterway	The public will have restricted access for approximately 18 days of the year during loadouts.	The public will have restricted access for approximately 18 days of the year during loadouts.

Note: Text in **bold** in Table 2 indicates a change to the proposal.



Professor Matthew Tonts
CHAIR
Environmental Protection Authority
under delegated authority

Approval date: 24.5.2021