



Statement No.

MINISTER FOR THE ENVIRONMENT AND HERITAGE

000626

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

PERTH METROPOLITAN DESALINATION PROPOSAL

Proposal: The construction and operation of a seawater desalination plant at a site in the Kwinana / East Rockingham area, and associated seawater intake, concentrated seawater discharge pipelines, and product pipeline to Tamworth Hill or Thomson's Lake Reservoir, as documented in schedule 1 of this statement.

Proponent: Water Corporation

Proponent Address: 629 Newcastle Street, LEEDERVILLE WA 6007

Assessment Number: 1454

Report of the Environmental Protection Authority: Bulletin 1070

The proposal referred to above may be implemented subject to the following conditions and procedures:

Procedural conditions

1 Implementation and Changes

- 1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions 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 and Heritage determines, on advice of the Environmental Protection Authority, is substantial, the proponent shall refer the matter to the Environmental Protection Authority.

Published on

26 MAY 2003

- 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 and Heritage determines, on advice of the Environmental Protection Authority, is not substantial, the proponent may implement those changes upon receipt of written advice.

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 the conditions in this statement.

3 Proponent Nomination and Contact Details

- 3-1 The proponent for the time being nominated by the Minister for the Environment and Heritage 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 and Heritage 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 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 Environmental Protection 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 provide evidence to the Minister for the Environment and Heritage within five years of the date of this statement that the proposal has been substantially commenced or the approval granted in this statement shall lapse and be void.

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

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

The application shall demonstrate that:

- the environmental factors of the proposal have not changed significantly;
- new, significant environmental issues have not arisen; and
- all relevant government authorities have been consulted.

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

Environmental conditions

5 Compliance Audit and Performance Review

5-1 The proponent shall prepare an audit program in consultation with and submit compliance reports to the Department of Environmental Protection which address:

- the implementation of the proposal as defined in schedule 1 of this statement;
- evidence of compliance with the conditions and commitments; and
- 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 Environmental Protection is empowered to audit 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.

Usually, the Department of Environmental Protection prepares an audit table which can be utilised by the proponent, if required, to prepare an audit program to ensure that the proposal is implemented as required. The Chief Executive Officer is responsible for the preparation of written advice to the proponent, which is signed off by either the Minister or, under an endorsed condition clearance process, a delegate within the Environmental Protection Authority or the Department of Environmental Protection that the requirements have been met.

5-2 The proponent shall submit a performance review report every five years after the start of the operations phase to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority, which addresses:

- the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;
- the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;
- significant improvements gained in environmental management, including the use of external peer reviews;

- stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and
- the proposed environmental targets over the next five years, including improvements in technology and management processes.

6 Decommissioning Plans

- 6-1 Prior to construction, the proponent shall prepare, and subsequently implement, a Preliminary Decommissioning Plan, which provides the framework to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

The Preliminary Decommissioning Plan shall address:

- 1 rationale for the siting and design of plant and infrastructure as relevant to environmental protection, and conceptual plans for the removal or, if appropriate, retention of plant and infrastructure;
- 2 a conceptual rehabilitation plan for all disturbed areas and a description of a process to agree on the end land use(s) with all stakeholders;
- 3 a conceptual plan for a care and maintenance phase; and
- 4 management of noxious materials to avoid the creation of contaminated areas.

- 6-2 At least 12 months prior to the anticipated date of decommissioning, or at a time agreed with the Environmental Protection Authority, the proponent shall prepare a Final Decommissioning Plan designed to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

The Final Decommissioning Plan shall address:

- 1 removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;
- 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 and proposed management measures to relevant statutory authorities.

- 6-3 The proponent shall implement the Final Decommissioning Plan required by condition 6-2 until such time as the Minister for the Environment and Heritage determines, on advice of the Environmental Protection Authority, that the proponent's decommissioning responsibilities have been fulfilled.

- 6-4 The proponent shall make the Final Decommissioning Plan required by condition 6-2 publicly available, to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority.

Procedures

- 1 Where a condition states "to the requirements of the Minister for the Environment and Heritage on advice of the Environmental Protection Authority", the Chief Executive Officer of the Department of Environmental Protection will obtain that advice for the preparation of written advice to the proponent.
- 2 The Environmental Protection Authority may seek advice from other agencies, as required, in order to provide its advice to the Chief Executive Officer of the Department of Environmental Protection.

Notes

- 1 The Minister for the Environment and Heritage will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environmental Protection over the fulfilment of the requirements of the conditions.
- 2 The proponent is required to comply with the provisions of Part V of the *Environmental Protection Act 1986*.

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT AND HERITAGE

26 MAY 2003

Schedule 1

The Proposal (Assessment No. 1454)

The construction and operation of a seawater desalination plant at a site in the Kwinana/East Rockingham area, and associated seawater intake, concentrated seawater discharge pipelines, and product pipeline to Tamworth Hill or Thomson's Lake Reservoir, as specified in the key characteristics tables below (See Tables 1 and 2).

The location of the plant and indicative product water pipeline alignments are shown in Figures 1 and 2, respectively (attached).

Table 1 - Key Proposal Characteristics – Desalination Plant

Characteristic	East Rockingham site	Kwinana Power Station site
Location	Corner Office and Patterson Roads	Kwinana Power Station
Capacity	30 GL/yr	30 GL/yr
Power requirement	20 MW	20 MW
Power Source	Possible 20MW Gas Turbine or Gas Engine Power Station or Western Power Grid	Western Power Grid
Clearing of vegetation required	2 to 3 ha of degraded vegetation	Likely to be 2 to 3 ha of mostly completely degraded vegetation
Seawater intake	220 ML/d (average)	220 ML/d (average)
Seawater intake pipelines		
Location (indicative)	See Figure 1	See Figure 2
Length (indicative)	3.1 km	0.8 km ¹
Number	1	1
Diameter	1400 mm	1400 mm
Concentrated seawater discharge		
volume	120 ML/day	120 ML/day
Salinity and temperature	65,000 mg/L, less than 2°C above ambient	65,000 mg/L, less than 2°C above ambient
Location of outlet	In 8 metre depth of water offshore from CBH Grains terminal	In 8 metre depth of water offshore from Kwinana Power Station
Diffuser design	160 metre long, risers at 10 metre spacings at 60° from horizontal, riser ports 200 mm in diameter	160 metre long, risers at 10 metre spacings at 60° from horizontal, riser ports 200 mm in diameter
Product water pipeline		
Location (indicative)	See Figure 1	See Figure 2
Capacity	Greater than 100 ML/day	Greater than 100 ML/day
Length (indicative)	10 km	10 km
Number	1	1
Diameter	900 mm	900 mm
Destination	Tamworth Hill reservoir	Thomson's Lake reservoir

¹ Potential for shared intake with power station

Schedule 1 (continued)

Table 2 - Key Proposal Characteristics - Power Station at the East Rockingham Site

Characteristic	Gas turbine PS	Gas engine PS
Capacity	20 MW	20 MW
Fuel	Natural Gas	Natural gas
Cooling water	Seawater	Seawater
Plant	Two gas turbines	Five high efficiency reciprocating internal combustion engines
	One steam turbine	-
Air emissions		
Nitrogen oxides	4.56 g/s at 12.53% O ₂	6.56 g/s at 10.6% O ₂
Greenhouse gases (CO ₂)	Approximately 117 524 tonnes per year at normal operating load	Approximately 78 650 tonnes per year at normal operating load
Vegetation clearing required	0.5 ha degraded vegetation	0.5 ha degraded vegetation

Abbreviations:

GL/yr	gigalitres per year
g/s	grams per second
ha	hectare
km	kilometre
mg/L	milligram per litre
mm	millimetre
ML/d	Megalitres per day
MW	megawatt
PS	Power Station

Figures (attached)

Figure 1 - Perth Metropolitan Desalination Proposal Locations – East Rockingham

Figure 2 - Perth Metropolitan Desalination Proposal Locations – Kwinana Power Station

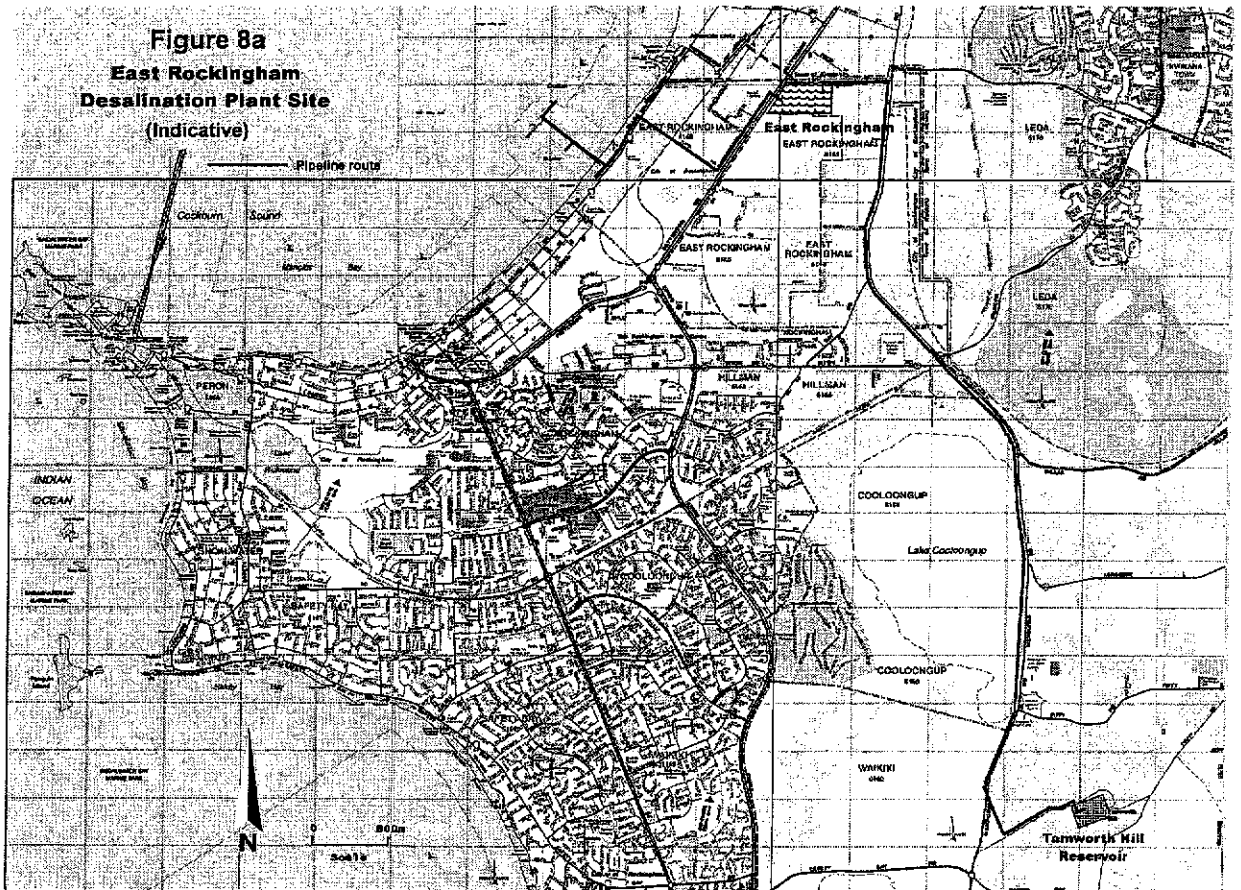


Figure 1 Perth Metropolitan Desalination Proposal Locations – East Rockingham

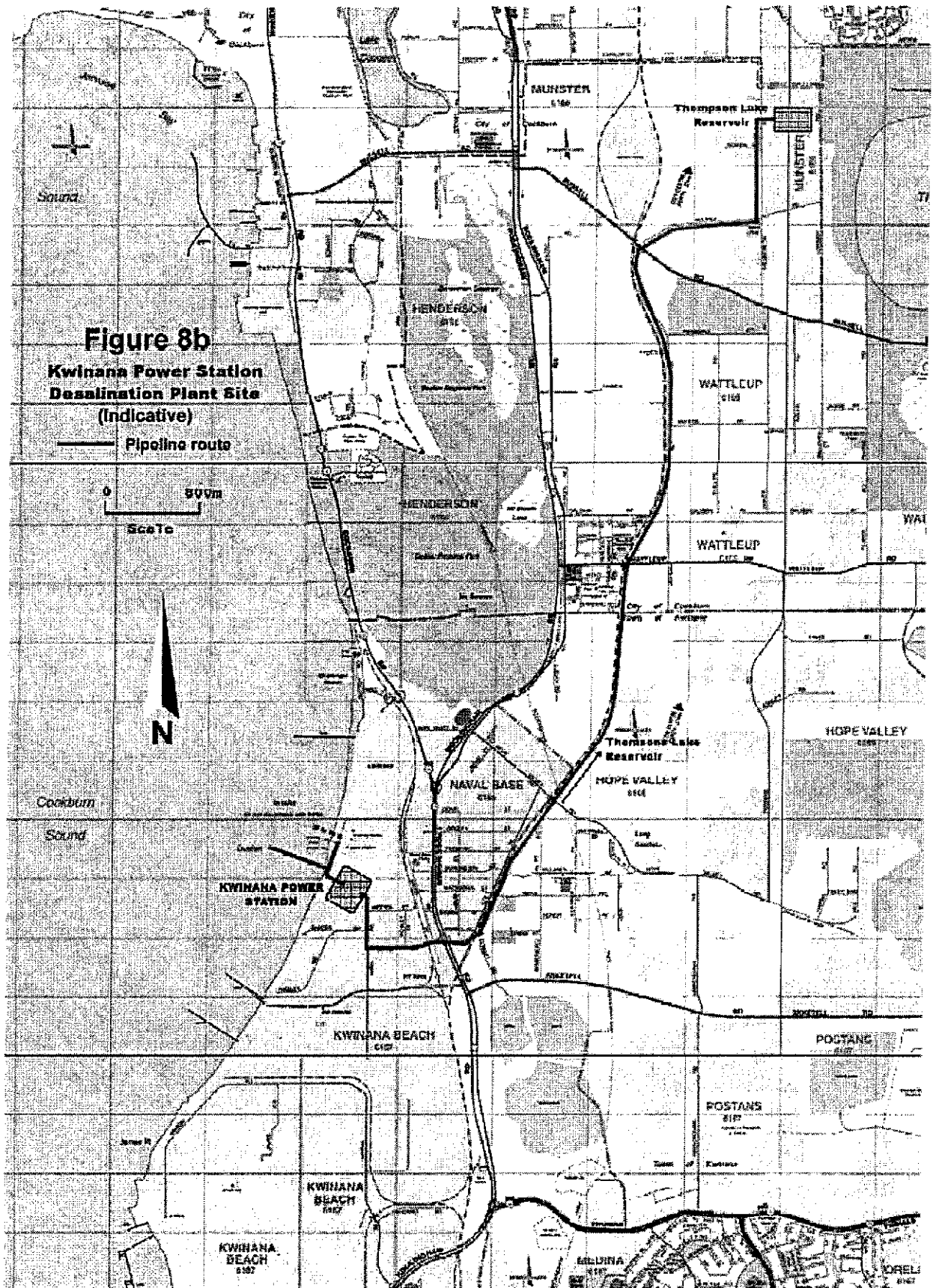


Figure 2 Perth Metropolitan Desalination Proposal Locations – Kwinana Power Station

Proponent's Environmental Management Commitments

May 2003

**PERTH METROPOLITAN DESALINATION
PROPOSAL**

(Assessment No. 1454)

Water Corporation

Schedule 2

Proponent's Environmental Management Commitments - Perth Metropolitan Desalination Proposal (Assessment No. 1454)

Note: The term "commitment" as used in this schedule includes the entire row of the table and its six separate parts as follows:

- a commitment number;
- a commitment topic;
- the objective of the commitment;
- the "action" to be undertaken by the proponent;
- the timing requirements of the commitment; and
- the body/agency to provide technical advice to the Department of Environmental Protection.

No.	Topic	Objective	Action	Timing	Advice
1	Consultative Environmental Management Plan (CEMP)	To minimise environmental impacts from implementation of the proposal	<p>Prepare a CEMP which addresses the following;</p> <ol style="list-style-type: none"> 1. Water Quality Management Plan to include: <ul style="list-style-type: none"> • procedures to mitigate potential impacts of construction of the discharge pipeline; • a monitoring program for TDS and temperature of water returned to the ocean; • a contingency plan which examines the risk of contamination and procedures to mitigate any unanticipated impacts; and • eco-toxicity testing of added chemicals in the high salinity seawater discharge (anti-scalants and biocides). 2. Flora and Fauna Management Plan to include: <ul style="list-style-type: none"> • locating the plant and pipelines to minimise clearing and effects on conservation values; • mitigating impacts on Priority Flora; • Dieback management measures; and • weed control measures. 3. Greenhouse gas management plan as part of CEMP that will include: <ul style="list-style-type: none"> • use of renewable energy as far as is practicable; • calculation of the greenhouse gas emissions; • specific measures to minimise the greenhouse gas emissions; • monitoring of greenhouse gas emissions; • estimation of the greenhouse gas efficiency in comparison with the efficiencies of other comparable projects producing a similar product; and • an analysis of the extent to which the proposal meets the requirements of the National Strategy using a combination of: <ul style="list-style-type: none"> - "no regrets" measures, 	Prior to construction.	CALM, Western Power, DIA

No.	Topic	Objective	Action	Timing	Advice
			<ul style="list-style-type: none"> - "beyond no regrets" measures, - land use change or forestry offsets, and - international flexibility mechanisms. <p>4. Demonstration that Nitrogen Oxides emissions from a dedicated power plant at East Rockingham will comply with EPA Guidance 15 and the relevant NEPM.</p> <p>5. Noise Management Plan which includes:</p> <ul style="list-style-type: none"> • detailed modelling of noise emissions; • cumulative affect of emissions; • consultation with potentially affected residents; and • development of complaints procedures to respond to concerns of nearby residents. <p>6. Hazardous Materials Management Plan to minimise public risk from materials associated with the plant.</p> <p>7. A contingency that includes an archaeological monitoring program in case Aboriginal heritage sites are discovered during construction.</p>		City of Rockingham, Town of Kwinana
2	Ocean outlet for seawater return	Achieve compliance with Cockburn Sound EPP	Locate and design the ocean outlet diffuser to ensure the discharge complies with the requirements of the Cockburn Sound Environmental Protection Policy.	Prior to construction	
3	Consultative Environmental Management Plan (CEMP)	Achieve objectives of commitment 1	Implement CEMP.	Before, during and following construction	WRC, CALM, Western Power, DIA
4	Vegetation, Declared Rare and Priority Flora and Fauna Habitat	Protect vegetation, Declared Rare and Priority Flora and Fauna	Conduct a survey of product pipeline routes to determine final alignments to avoid areas identified by CALM or Department of Environmental Protection. Conduct detailed survey for Rare and Priority Flora, to contribute to the Flora and Fauna Management Plan.	Spring season before construction commences	CALM
5	Aboriginal heritage	Address heritage issues	Consult with regional and local Aboriginal organisations and conduct site inspections to determine issues.	Before and during construction	DIA
6	Aboriginal heritage	Address impact issues	Submit a section 18 application to develop into Cockburn Sound to the Aboriginal Cultural Materials Committee.	Before construction	DIA

Abbreviations:

CALM Department of Conservation & Land Management
DIA Department of Indigenous Affairs
EPP Environmental Protection Policy
NEPM National Environmental Protection Measure
WRC Water & Rivers Commission