



WESTERN AUSTRALIA
MINISTER FOR THE ENVIRONMENT

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

MANDURAH QUAY, PEEL INLET, MANDURAH (340)

FORX PTY LTD

This proposal may be implemented subject to the following conditions:

1. In implementing the proposal, the proponent shall fulfil the commitments (which are not inconsistent with the conditions or procedures contained in this statement) made by the proponent. (A copy of the commitments is attached.)
2. Subject to these conditions, the manner of detailed implementation of the proposal shall conform in substance with that set out in any designs, specifications, plans or other technical material submitted by the proponent to the Environmental Protection Authority with the proposal. Where in the course of that detailed implementation, the proponent seeks to change those designs, specifications, plans or other technical material in any way that the Minister for the Environment determines on the advice of the Environmental Protection Authority, is not substantial, those changes may be effected.
3. Before, and during construction of the proposal, the proponent shall ensure to the satisfaction of the Minister for the Environment on the advice of the Environmental Protection Authority that:
 - (i) there is no filling or disturbance of the wetland in the newly created reserves to the east and west of the Development;
 - (ii) the nutrient balance and the groundwater and estuarine recharge systems of the Sticks wetland are retained in the condition existing prior to construction; and
 - (iii) all construction activities particularly building of the retaining walls are carried out in such a manner that there are no unacceptable impacts on the foreshore and wetland areas adjacent to the development site.
4. Prior to construction, the proponent shall prepare a groundwater monitoring programme to monitor dewatering activities during construction to the satisfaction of the Minister for the Environment on advice from the Environmental Protection Authority. The proponent shall ensure that dewatering during the construction of the boat haven does not cause any adverse effects on the vegetation in the foreshore reserves, to the trees in all designated open space and to the vegetation and function of Sticks wetland. If monitoring indicates that adverse effects are likely to or have occurred the proponent shall stop dewatering and undertake immediate remedial measures to the satisfaction of the Environmental Protection Authority.

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5. The proponent shall prepare in stages an Environmental Monitoring Programme for the development area, including the development site, the foreshore reserves, and adjacent areas of the Peel Inlet which may possibly be affected by the development, and establish reporting and review mechanisms within this Programme, to the satisfaction of the Minister for the Environment on advice from the Environmental Protection Authority, the Peel Inlet Management Authority, City of Mandurah, Shire of Murray and the Department of Marine and Harbours.

This programme shall include but not be limited to :

- (i) a Foreshore Management Plan for foreshore areas adjacent to the development site, to be prepared prior to construction. This Plan shall address but not be limited to the following issues : foreshore erosion control, foreshore works and maintenance, fire management, algal wrack management, nutrient application control, control of public and vehicle access to wetland areas east and west of the development site, retention of all indigenous vegetation within foreshore reserves, and provision for dual use paths, paving and fencing ;
 - (ii) a Nutrient and Irrigation Management Plan, to be prepared prior to construction to the satisfaction of the Minister for the Environment. This Plan shall ensure that fertilizer application rates for the whole site are limited to a rate of 15 kg/ha/year of phosphorus and 60 kg/ha/year of nitrogen, and a maximum water application rate of 5000 kl/ha/year. The Plan shall be implemented to the satisfaction of the Environmental Protection Authority. If in the opinion of the Minister for the Environment, nutrients from the development are having an adverse effect on the environment, the proponent shall put into place ameliorative measures to the satisfaction of the Minister for the Environment, on the advice of the Environmental Protection Authority ;
 - (iii) a Boat Haven Monitoring and Management Plan, to be prepared to the satisfaction of the Environmental Protection Authority on advice from the Department of Marine and Harbours and the Peel Inlet Management Authority prior to completion of the boat haven. This management plan shall include but not be limited to the following issues: control, monitoring and contingency plans for water quality, structures, algal wrack, and pollutants ; and
 - (iv) and any wetlands management issues which may be pertinent to the artificial lake to be constructed within the development site to the satisfaction of the Minister for the Environment on advice from the Environmental Protection Authority prior to subdivision.
- The proponent shall implement the Environmental Management Programme for the period of five years following completion of construction.
6. Within five years of subdivision approval the proponent shall in conjunction with the future vesting authority or authorities and other adjoining land owners, provide assistance in the preparation of a wetlands management plan which shall address and manage issues which may arise as a consequence of development such as control of access, control of domestic and feral animals, weed invasion and mosquito control for the adjacent conservation areas to the satisfaction of the Minister for the Environment on advice from the Environmental Protection Authority, the Peel Inlet Management Authority and the Department of Conservation and Land Management.

7. No transfer of ownership, control or management of the project which would give rise to a need for the replacement of the proponent shall take place until the Minister for the Environment has advised the proponent that approval has been given for the nomination of a replacement proponent. Any request for the exercise of that power of the Minister shall be accompanied by a copy of this statement endorsed with an undertaking by the proposed replacement proponent to carry out the project in accordance with the conditions and procedures set out in the statement.
8. If the proponent has not substantially commenced the project within five years of the date of this statement, then the approval to implement the proposal as granted in this statement shall lapse and be void. The Minister for the Environment shall determine any question as to whether the project has been substantially commenced. Any application to extend the period of five years referred to in this condition shall be made before the expiration of that period, to the Minister for the Environment by way of a request for a change in the condition under Section 46 of the Environmental Protection Act. (On expiration of the five year period, further consideration of the proposal can only occur following a new referral to the Environmental Protection Authority.)

Bob Pearce, MLA
MINISTER FOR THE ENVIRONMENT

2 AUG 1991

MANDURAH QUAY DEVELOPMENT

PEEL INLET MANDURAH

SUMMARY OF CONSOLIDATED COMMITMENTS

The proponent will undertake to abide by all commitments made in the CER. The project will be operated and maintained in accordance with guidelines established by the two management programmes detailed in Section 6 of that document. These commitments will be incorporated into the project agreement, which is to be established between the proponent, the State and the City of Mandurah.

Major commitments given within the management programmes are summarised in the following sections.

1. MANDURAH QUAY MANAGEMENT PROGRAMME

1.1 Construction Impacts

- 1.1.1 Hours of operation will be negotiated with the EPA and the City of Mandurah.
- 1.1.2 Trees of land surrounding the Stage 1 development site will be retained to act as a buffer between the development and residential areas.
- 1.1.3 It is proposed to excavate the harbour to depths ranging from -3.26m below AHD at the entrance and within the fairway, to -2.26m below AHD in small boat mooring areas.
- 1.1.4 It is proposed to excavate the boat haven using conventional land-based earthmoving equipment.
- 1.1.5 Water from dewatering operations will be impounded to allow settlement of suspended solids before being discharged to Peel Inlet.
- 1.1.6 Proposed deposition of spoil for fill at the southwestern corner of the site will take place to the satisfaction of the City of Mandurah and the EPA. Retaining walls are proposed to prevent incursion into the adjacent wetlands.
- 1.1.7 Any additional fill required will be obtained from existing sources within the Mandurah region.
- 1.1.8 All exposed soil surfaces will be stabilised immediately following clearing.
- 1.1.9 A soil wetting agent will be applied if required and extra water trucks will be brought on site if dust problems arise.
- 1.1.10 Topsoil removed will be stockpiled and used in revegetation of landscaped areas.
- 1.1.11 It is proposed to open the entrance to Sticks Channel at a time which is to the satisfaction of PIMA and the EPA.

FORESHORE MANAGEMENT PROGRAMME

Erosion prevention structures in the form of small timber piers or groynes are proposed to be constructed along the foreshore to the satisfaction of the EPA, PIMA, DMH and the City of Mandurah and will be maintained by the proponent for the first five years of operation.

Shoreline stability will be monitored on an annual basis.

The dual-use pathway will be positioned to avoid environmentally-sensitive and eroding areas of the foreshore, and to link up with the pathway proposed within the Bridgewater Foreshore Management Plan.

2.4 Public barbeque facilities are proposed along the foreshore, and signs warning of the potential toxicity of the water during *Nodularia* blooms will be erected.

2.5 The foreshore will be rehabilitated with suitable indigenous species.

2.6 A contingency plan for extreme climatic events will be detailed.

2.7 Physical disturbance to waterbirds will be minimised by implementation of the management proposals contained within the Bridgewater Foreshore Management Plan which include:

- barrier fencing along the foreshore boundary adjacent to the Chimneys Spit;
- barrier fencing along the western boundary of the Sticks wetlands to the development site boundary; and
- firebreak following the fence line where there is no existing firebreak.

2.8 The Bridgewater Foreshore Management Plan also recommends for the future development of the Erskine foreshore that a management committee, comprising representatives from government departments, local residents, and landowners, should determine and implement long-term management initiatives. These could include:

- the provision of boardwalks and bird "hides";
- possible vehicular access to the estuary;
- carpark(s) adjacent to the estuary;
- weed and feral animal control;
- maintenance of fencing, pathways and public facilities;
- additional pedestrian access through the reserve; and
- provision of public facilities.

2.9 In addition, barrier fencing and advisory signposting will be erected along the western site boundary by the proponent.

2.10 Lighting within the development will be directed away from the wetlands.

2.11 The proponent will remove algal wrack accumulating along the shoreline within the proposed development area.

- 1.1 Measures such as artificial aeration or circulation of boat haven waters will be employed if required as a result of poor water quality.
- 1.2.12 The proponent is committed to remove litter, floating debris and weed accumulating in the boat haven, as required.
- 1.2.13 It is proposed to monitor the sediments in the boat haven as follows:
- sampling monthly in the first year and quarterly for the following four years for nutrients and other water quality parameters; and
 - sampling when the boat haven is initially opened and subsequently in years three and five for heavy metals.
- 1.2.14 Monitoring will be to the satisfaction of the EPA and PIMA.
- 1.2.15 Navigable water depth at the entrance will be maintained by dredging as required, to the satisfaction of DMH.
- 1.2.16 Navigation aids proposed will be in accordance with DMH requirements. Following their construction, navigation aids will be the responsibility of that authority.
- 1.2.17 Measures proposed to minimise nutrient input to the groundwater in areas maintained by the proponent include the use of slow release fertilisers, planting of low maintenance vegetation species and education of residents in fertiliser practices by means of a brochure.
- 1.2.18 Runoff from all roads and other paved surfaces is proposed to be contained on site in an artificial wetland, designed to accommodate a minimum one in ten year storm event for three to four days prior to leaving the site. An emergency outfall is proposed to discharge into the boat haven in the event of an extreme storm event.
- 1.2.19 The proponent will comply with the provisions of the *Aboriginal Heritage Act 1972-80* if any Aboriginal site is located within the study area during the construction period.
- 1.2.20 It is proposed to recognise the Aboriginal values of the area with a suitably worded plaque, following consultation with the Western Australian Museum.
- 1.2.21 The proponent is prepared to assist in educational programmes aimed at managing fish stocks in consultation with the Department of Fisheries.
- 1.2.22 Contingency plans for navigable entrance, water quality maintenance and store and flood damage will be documented and implemented in an emergency situation.
- 1.2.23 The proponent will be responsible for undertaking all maintenance and management actions for the first five years of operation.
- 1.2.24 Monitoring results will be reported annually and reviewed following five years of operation.

- 1.1.2 Entrance channel walls are proposed to be constructed to a height matching existing land levels. Details of walling will be to the satisfaction of DMH and PIMA.
- 1.1.3 All wall structures will be designed in accordance with standard engineering practice and to the satisfaction of DMH.
- 1.1.14 The structural integrity of all civil works will be monitored on an annual basis for five years.
- 1.1.15 High visual amenity is proposed within the development with total architectural control, control of building materials and careful design of scale and form.
- 1.1.16 Any waste material generated during construction will be disposed of in accordance with Council regulations. Proper sanitation facilities will be provided for the construction workforce.
- 1.1.17 It is proposed to retain existing trees along the foreshore and as much indigenous vegetation as possible throughout the development area. Landscaping will utilise vegetation species native to the area.
- 1.2 Operation Impacts**
- 1.2.1 Minimum development levels are proposed to be set at 2.15m above AHD.
- 1.2.2 Power supply within the proposed development will be underground.
- 1.2.3 The proposed development will be deep sewered throughout in accordance with WAWA requirements.
- 1.2.4 A sillage pumpout facility is intended within the boat haven and will be connected directly to the deep-sewerage system to the satisfaction of the EPA.
- 1.2.5 Public boat landings, service berths, refuelling facilities and a boat launching ramp are proposed within the development. Vehicle and trailer parking will be provided.
- 1.2.6 Dual-use pathways will be provided along the foreshore and skirting the boat haven to provide unrestricted public access to the shoreline Chimneys Spit and Sticks Wetland.
- 1.2.7 Public access to adjacent conservation areas will be discouraged.
- 1.2.8 Water quality within the proposed boat haven will be maintained such that it is suitable for boating and adjacent development and occasional human immersion, while not adversely affecting the estuarine fishery or Peel Inlet waters.
- 1.2.9 A comprehensive water quality monitoring programme is proposed, to be implemented to the satisfaction of the EPA and PIMA.
- 1.2.10 Boats with TBT-based antifouling paint will not be permitted to moor within the boat haven.