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COODANUP DEVELOPMENT

Report and Recommendations of the Environmental Protection Authority

Environmental Protection Authority
Perth Western Australia
Bulletin 296 August 1987

Coodanup Development

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The Coodanup Development is a proposal by Mezzanine Pty Ltd to develop a residential and boat haven complex on former farming land fronting the Serpentine River at Coodanup (see location on Figure 1).

A Notice of Intent (NOI) was prepared by the proponent identifying the major issues relating to the proposal.

The Authority has assessed the environmental impacts of the proposal from the NOI, from comments provided by a number of Government agencies, and from a supplementary document prepared by the proponent responding to those comments.

RECOMMENDATION 1

The EPA has concluded that the proposal is environmentally acceptable and recommends that it could proceed subject to the proponent's commitments in the Notice of Intent and Supplementary Document and the Authority's recommendations in this report.

RECOMMENDATION 2

The EPA recommends that a plan be developed for environmental management of the boat haven, including action to be taken in the event of fuel, oil or other spillage to the satisfaction of the Peel Inlet Management Authority.

RECOMMENDATION 3

The EPA recommends that the design of the boat haven should be such that the draft of boat catered for is consistent with the current dredging regime of the Serpentine River entrance.

RECOMMENDATION 4

The EPA recommends that a management plan be prepared by the proponent, and approved by the Peel Inlet Management Authority and the Shire of Mandurah, for the Serpentine River foreshore fronting the development area, detailing rehabilitative work and future management to minimise impacts from people and boat traffic pressures.

RECOMMENDATION 5

The EPA recommends that there be permanent unconstrained public access around the boat haven to the satisfaction of the Peel Inlet Management Authority.

RECOMMENDATION 6

The EPA recommends that a management plan for rehabilitation and maintenance of wetland adjacent to Peel Parade be developed to the satisfaction of the Shire of Mandurah.

RECOMMENDATION 7

The EPA recommends that stormwater not be permitted to discharge directly to the wetland on the South West corner of Lot 169.

SOURCE: NOTICE OF INTENT

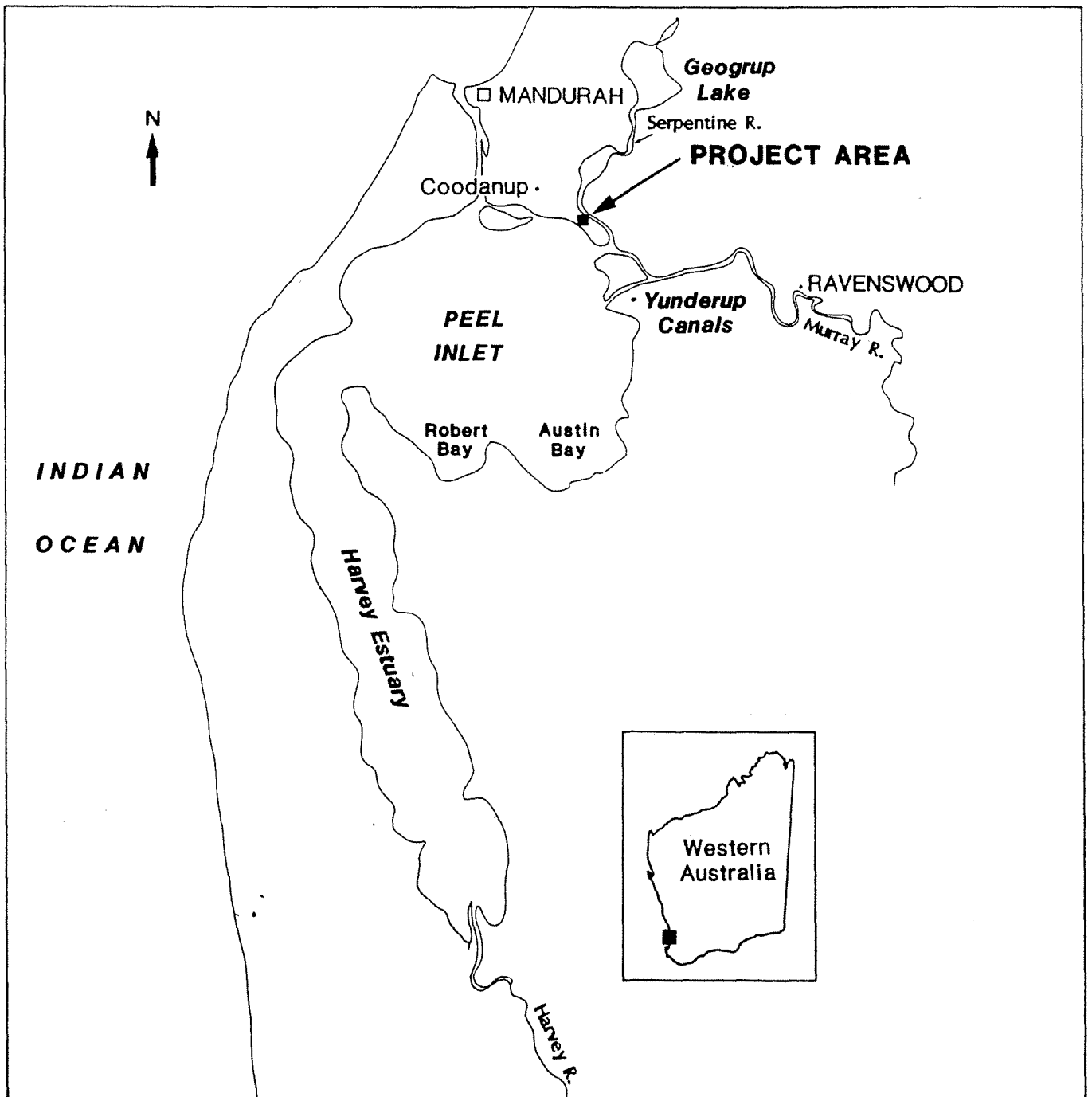


Figure 1 LOCATION MAP

1. DESCRIPTION OF THE PROPOSAL

Mezzanine Pty Ltd propose to establish a residential subdivision on Cockburn Sound Location 16, being part lots 167 to 169. This land is situated on a strip that lies between the Serpentine River and the Peel Inlet at Coodanup, near Mandurah. The land, which is currently used for grazing purposes, is presently zoned as Future Urban, Rural, Residential and Local Recreation under the Shire of Mandurah Town Planning Schemes 1A. The Shire has resolved to rezone the land to Residential 1, Residential 3, Local Recreation, District Recreation and Tourist Zone.

The major elements of the development comprise:

- (i) Two areas of residential subdivision, varying from low (1 500 to 3 000 square metres) to medium (1 000 square metres) density. Significant areas of fill are required to bring portions of the land up to a level suitable for residential development.
- (ii) A "boat haven" off the Serpentine River, providing jetty and mooring facilities to residents and the general public, and serviced by a kiosk and refuelling facilities. The boat haven would accommodate up to about 150 boats of average size 5-6 metres. It is proposed that the boat haven would be a separate lot under a separate company or trust ownership which would have legal obligations in terms of maintaining the boat haven.
- (iii) A group of holiday chalets located adjacent to the boat haven. About 50 chalets will be established, with administration and recreation areas.
- (iv) The creation of a widened foreshore reserve along the Serpentine River. The foreshore would be rehabilitated.
- (v) Rehabilitation and reservation of a small wetland on the site, adjacent to Peel Parade.
- (vi) The creation of open space reserves within the Subdivision to protect areas of trees and scrub.

The entire development would be deep seweraged and stormwater drainage would be via in-situ surface sands and soak-wells.

In the NOI and Supplementary Document, the proponent has made a number of commitments to minimise the impacts. These are listed in Appendix 1.

2. ENVIRONMENTAL IMPACTS

A number of environmental issues and impacts associated with the proposal have been identified. These relate to several areas of the proposal and are discussed below. The recommendations made by the Authority have been developed in consultation with specialist Government agencies.

2.1 THE BOAT HAVEN

The major issues associated with the development of the boat haven are the suitability of water quality within the Serpentine River for essentially a marina complex, maintenance of water quality within the boat haven, effect

of the development on river flow patterns and sediment movement, erosion of river banks adjacent to the boat haven entrance and as a result of increased boat traffic within the river, management responsibility for the boat haven, and ensured public access to the boat haven.

The Authority is aware that water quality in the Serpentine River, especially during summer, is declining. It is possible that it could decline to a point where it is not suitable for a water based development. However, nutrient input into the river is currently subject to investigations through the Peel Harvey ERMP Stage 2 and, with appropriate management, water quality may improve in the future.

Advice in the NOI and obtained from government agencies indicates that the design of the boat haven is such that the circulation should be sufficient to maintain the water quality at a level equivalent to that of the Serpentine River, and that the boat haven will not significantly effect existing river flow patterns and sediment movement.

The NOI states that the boat haven will be a separate lot under separate ownership, either as a company or a trust. The Authority is concerned to ensure that the cost of ongoing maintenance of the boat haven does not become the responsibility of the State, and notes the commitment made by the proponent to this effect.

The NOI states that maintenance dredging of the boat haven would be likely to be required on a 20 to 25 year cycle. In addition, the supplementary document provided by the proponents recognises that some maintenance and replacement of the retaining structures for the boat haven will be required within a 15 to 20 year life-span. The above comments made in respect to maintenance costs of the boat haven are pertinent to these situations. This reinforces the need for clearly defined responsibility for maintenance costs associated with the boat haven. Maintenance of water quality within the boat haven should also be the responsibility of the boat haven management.

RECOMMENDATION 2

The EPA recommends that a plan be developed for environmental management of the boat haven, including action to be taken in the event of fuel, oil or other spillage to the satisfaction of the Peel Inlet Management Authority.

The boat haven has been designed to cater for boats of an average length of 5-6 metres. The NOI states that boats up to a length of 10 metres would be catered for. The Authority is aware that the size of vessels entering the Serpentine River is restricted by the navigability of the River mouth. A boat haven design that caters for larger vessels may lead to increased pressure for dredging of the River entrance, and increased foreshore erosion.

RECOMMENDATION 3

The EPA recommends that the design of the boat haven should be such that the draft of boat catered for is consistent with the current dredging regime of the Serpentine River entrance.

The Proponent's documents state that it is intended to provide refuelling facilities at the Boat Haven, but predicts that there will be little demand for sullage facilities.

2.2 SUBDIVISION

The Authority endorses the commitment made in the NOI that the development would be entirely deep sewered.

Some areas of the development would require fill to raise levels to a height suitable for residential development. The Authority notes the commitment made in the NOI that building floor levels will be in accordance with levels recommended by the Water Authority of WA, and that all fill would be obtained from the within the site, which includes spoil from the excavation of the boat haven.

The Authority also notes the commitments in the NOI to ensure that no trees of any significance are removed and that a programme of revegetation will be undertaken.

The proposed area of holiday chalets adjacent to the boat haven would represent a single intensive focus of people and activity, and management of the site and surrounding public open space would need to be of a high standard.

The residential subdivision in the Western sector is of low density with block sizes ranging from 1 500 square metres to over 3 000 square metres. The Authority endorses the provision of a nominal strip of public open space along Beacham Street to restrict vehicular access and prevent further subdivision of the lots backing Beacham Street.

2.3 RIVER FORESHORE RESERVE

In the NOI it is stated that additional land to increase the foreshore reserve to a width of 50 metres would be ceded to the Crown. The Authority understands that the Shire of Murray have agreed to sell that part of Pt Lot 170A which adjoins the development land (the existing foreshore reserve) to the proponent, on the condition that this land will be ceded to the Crown once the boat haven access through the land is established.

The boat haven will generate increased traffic in the Serpentine River, both down stream and up stream, and this will lead to increased foreshore erosion, especially on the foreshore between the boat haven and the River mouth. The development would necessitate additional foreshore management of the lower reaches of the Serpentine River as a direct result of the increased boat traffic.

The Authority notes the commitment in the NOI to carry out appropriate rehabilitative work of the Serpentine River foreshore. The increased pressure on the foreshore from people and boat traffic would also necessitate a greater degree of foreshore management.

RECOMMENDATION 4

The EPA recommends that a management plan be prepared by the proponent, and approved by the Peel Inlet Management Authority, for the Serpentine River foreshore fronting the development area, detailing rehabilitative work and future management to minimise impacts from people and boat traffic pressures.

The proposed foreshore reserve will not be continuous along the foreshore due to the boat haven entrance. The Authority is concerned to ensure that

there is continuous public access along the foreshore and therefore around the boat haven.

RECOMMENDATION 5

The EPA recommends that there be permanent unconstrained public access around the boat haven to the satisfaction of the Peel Inlet Management Authority.

2.4 WETLAND

Part of the proposed development site comprises a small wetland, located adjacent to Peel Parade on the South-West corner of Lot 169. The NOI states that it is intended to rehabilitate the wetland and create a reserve that will be ceded to the Crown, and that more detailed plans for wetland rehabilitation will be prepared. The NOI also states that stormwater may be directed into the wetland.

RECOMMENDATION 6

The EPA recommends that a management plan for rehabilitation and maintenance of the wetland adjacent to Peel Parade be developed to the satisfaction of the Shire of Mandurah.

RECOMMENDATION 7

The EPA recommends that stormwater not be permitted to discharge directly to the wetland on the South-west corner of Lot 169.

2.5 SUITABILITY OF THE SITE

The proposed site has been used as grazing land for horses, cattle and sheep, and most understory vegetation has been removed although some valuable stands of trees remain. As a result, the area is considered to have low conservation value, except for the foreshore area. Although current zoning is not consistent with the proposal, the Shire of Mandurah has resolved to appropriately rezone the land. The site is bounded on three sides by existing urban areas.

The Authority notes that algal accumulation occurs on the Peel Estuary foreshore adjacent to the development, and it should be recognised that odour will be likely to occur at the proposed site.

3. CONCLUSION

The EPA concludes that the proposed development at Coodanup by Mezzanine Pty Ltd is environmentally acceptable subject to the recommendations in this report and the commitments made by the proponent in the Notice of Intent and Supplementary Document.

COODANUP DEVELOPMENT

COMMITMENTS MADE BY OR ON BEHALF OF MEZZANINE PTY LTD IN THE NOTICE OF INTENT (JANUARY 1987); SUPPLEMENTARY REPORT (JUNE 1987); AND IN UNDERTAKINGS GIVEN ORALLY TO THE PEEL INLET MANAGEMENT AUTHORITY (JULY 1987)

1. PUBLIC OPEN SPACE CONTRIBUTION

Mezzanine Pty Ltd proposes to give up, free of cost, open space areas totalling 15.717 hectares or 24.56% of the total site of 64.005 hectares.

These figures allow for the inclusion of approximately 3.52 hectares of foreshore land, part of Pt Lot 170A, which is being acquired by Mezzanine Pty Ltd from the Shire of Murray.

Without allowing for Pt Lot 170A the total site area is 60.4848 hectares and the open space contribution 12.197 hectares (or 20.16% of the site).

Proposed public open space areas comprise:

- (i) 50 metre river foreshore reserve for the full length of the site with the single exception of the restored homestead. This area totals 6.33 hectares, including 3.52 hectares from Lot 170A.
- (ii) Wetland Conservation Reserve 1.87 hectares
- (iii) Other Open Space Areas 7.52 hectares

Picnic and barbeque facilities would be provided (Notice of Intent 3.2.2).

2. WETLAND REHABILITATION

Mezzanine Pty Ltd proposed to rehabilitate the degraded ephemeral wetland adjacent to Peel Parade. The work would include planting of indigenous species, including thinning and transplantation of existing reeds; and possible contour modification to ensure a permanent water area. (Refer Notice of Intent Summary and 3.2.6; Supplementary Report 3.7).

3. PRESERVATION AND ENHANCEMENT OF VEGETATION

Restrictive covenants on residential lots are proposed, to ensure that trees are not removed. (Notice of Intent 3.2.1).

In areas of open space a programme of restoration and revegetation with indigenous species would be carried out (Notice of Intent 3.2.2; 3.2.6; 3.2.7).

Native species street trees would be planted (Notice of Intent Summary).

4. RIVER FORESHORE REHABILITATION

Mezzanine Pty Ltd proposes to carry out a programme of rehabilitation in cooperation and consultation with PIMA and the Shire of Mandurah. This work would include bank protection with log walls and rock armour; planting of vegetation and removal of debris. (Notice of Intent 3.2.2 and 3.2.5).

5. **BOAT HAVEN MANAGEMENT**

Mezzanine proposes that the boat haven would be owned by a corporate entity (company or trust) established with clearly defined legal obligations in respect of maintaining the boat haven and associated matters such as water quality, to ensure that no ongoing burden of maintenance would accrue to any public authority. (Notice of Intent Summary).

A permanent management and maintenance presence would be maintained at the boat haven (Notice of Intent 3.2.3).

Mezzanine Pty Ltd expects to submit details of the management and ownership provisions for approval by the relevant authorities, and undertake any necessary legal agreements (Presentation to PIMA July 1987).

6. **UTILITY SERVICES**

The usual utility services, including connection of all lots to deep sewerage, would be provided.

Stormwater drainage would be disposed of on site, not discharged to the Serpentine River or Peel Inlet.

7. **LIMITATION OF BOAT SIZE**

Mezzanine would be prepared to accept limitations on the size of boats using the boat haven, based on the navigable depth of the Serpentine River. (Presentation to PIMA July 1987).