

HERDSMAN LAKE - SOUTH EAST SECTOR PROPOSALS

STATE PLANNING COMMISSION



**Report and Recommendations
by the
Environmental Protection Authority**



**Department of Conservation and Environment
Western Australia**

Bulletin 263 June 1986

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1. INTRODUCTION

Following the 1976 Concept Plan for Herdsman Lake, various plans and proposals for development have been put forward and undertaken. In order to coordinate planning for the lake, the State Planning Commission adopted Improvement Plan No 21 for the lake area and its surrounds. (see Figure 1)

A major component of the original concept plan and the Improvement Plan was for the creation of a protective moat around the central core of the lake area. This moat was designed to protect the conservation value of the central area and to provide open water areas for wildlife.

Developments in the south western section of the lake (Floreat Waters) and the north eastern section (Herdsman Industrial Park) have created a major portion of the protective moat. The only remaining sections to be completed are in the north west and south east corners of the lake.

In 1985, the State Planning Commission proposed works in the south east sector, to complete the moat in this area and to create some passive recreation areas between the existing urban zone and the moat. The Environmental Protection Authority approved Stage 1 of the moat, being a southern extension of the existing water area near Jon Sanders Drive, but in respect of the remaining section called for a Notice of Intent.

2. PROPOSAL

2.1

The State Planning Commission has prepared and submitted a Notice of Intent for the extension of the moat in the south eastern sector of the lake and for the creation of a filled passive recreation area adjacent to the moat.

2.2

The moat would be created by removing reed material from the area by bulldozer and subsequently employing a dredge to deepen the moat to R L 5.4 metres. The material from this dredging would be used to form the filled passive recreation area and backfill other sections of the moat to design specifications. Two narrow connecting channels would be constructed between the moat and the World Wildlife Fund Headquarters. Figure 2 shows the details of the proposed works.

3. ASSESSMENT

3.1

In examining the Notice of Intent, the Authority considered that the involvement of certain conservation groups would be essential before making its decision on the proposals. Accordingly, a meeting was held between representatives of the following:

- . Conservation Council of WA;
- . Herdsman Habitat;
- . Department of Conservation and Land Management;
- . Royal Australia Ornithological Union;
- . State Planning Commission; and
- . Department of Conservation and Environment.

As a result of these discussions, the assessment of the Notice of Intent included the range of issues raised by the group.

3.2

The Authority was impressed by the quality of the assessment document and the comprehensive manner by which all pertinent issues of environmental concern were addressed. Such an approach has made the Authority's task of reviewing the proposal easier.

3.3

Physical impacts of the proposal in terms of noise, dust, smoke and general disturbance to the residential area adjacent to the works area are considered to be acceptable and adequate management controls have been incorporated into the works contract.

3.4

Biological impacts of the proposal do not appear to be a cause for concern, however, the Authority believes that aspects of design should be modified slightly during the construction phase in order to provide a more diverse range of habitats.

In particular, attempts should be made to increase the amount of shallow mudflats adjacent to the core area and adjacent to reed areas on the outside of the moat.

3.5

The Authority believes that the proposed moat should be made as shallow as possible, and in line with its prior advice on stage 1 of the moat in this area, the bed of the moat should not be lower than R L 5.4 metres. The Authority believes that this depth will be adequate to achieve the objectives of a protective moat, whilst providing a desirable additional habitat to the total lake system.

3.6

The Authority noted that the moat is to have a peat bottom. This objective is strongly supported and the proponent should ensure that a substantial depth of peat exists on the bottom of the finished moat.

3.7

The width of the moat has been questioned, however, as a result of accommodating suggestions from the Department of Conservation and Land Management and including the additional mudflat areas referred to in 3.4, the moat will be narrower than originally proposed.

3.8

The use of the material from the proposed moat to backfill other sections of the moat to design levels is supported by the Authority. The dredging operation being carried out in a closed system will ensure that disturbance to adjacent water bodies is minimised.

3.9

The proposals to include the newly created section of moat within the overall water quality monitoring programme for the whole lake is supported.

3.10

Reference is made in the Notice to Argentine Ant control. Before any major spraying programme in the works area is undertaken, the approval of the Department of Conservation and Land Management should be obtained.

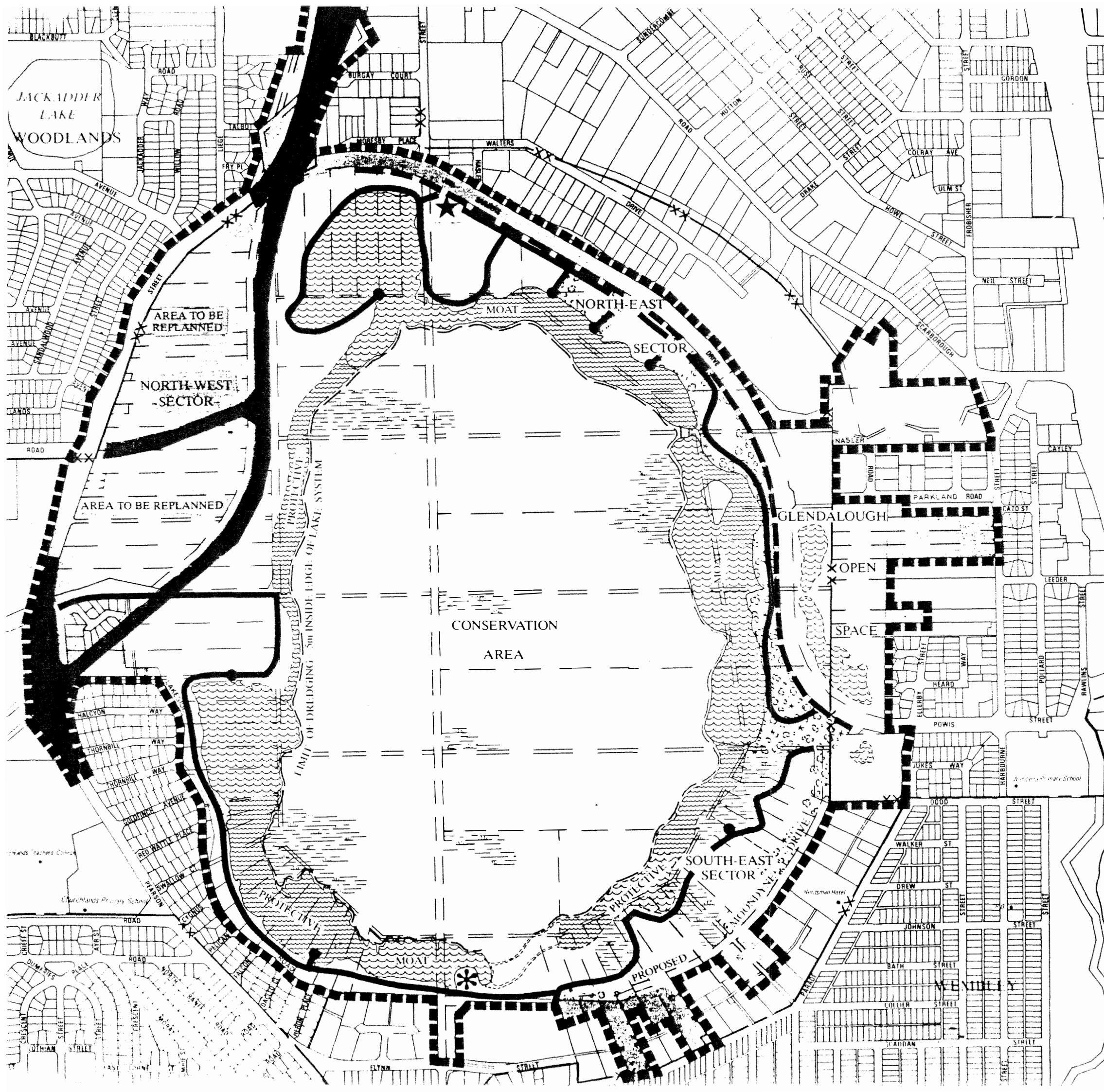
4. CONCLUSIONS

4.1

The works proposed in the Notice of Intent have been assessed by the Authority as being desirable in terms of achieving the objectives of the original Concept Plan for the lake and the Improvement Plan No 21. The means of constructing the moat and adjacent filled area have been formulated in an environmentally sensitive manner and should not result in an unacceptable impact on the environment.

Subject to the following recommendations being met, the Authority does not object to the proposed works proceeding in accordance with the Notice of Intent:

1. The finished lake bed should be no lower than R L 5.4 metres.
2. A substantial depth of peat should exist on the bottom of the completed moat.
3. State Planning Commission should provide a report to the Authority on completion of the project, detailing any unexpected impacts, problems encountered and the means used to resolve them. In addition, a survey of the newly created moat (and the stage 1 moat) should be provided to show the finished depth does not exceed the depth as per recommendation 1.
4. The Commission should provide additional information as to the timing of the dredging operation and if there are any environmental implications if a delay occurs between the stripping of the reeds and the dredging. The means of overcoming any adverse implications should be addressed.
5. During construction, shallow mudflat areas on the edge of the moat should be provided (except adjacent to the filled recreation areas) to create a wider diversity of habitats.
6. The Commission should adhere to the commitments made in the Notice of Intent. Any alterations to the proposal or methods of construction, should be referred to the Authority for further consideration prior to those changes being made.

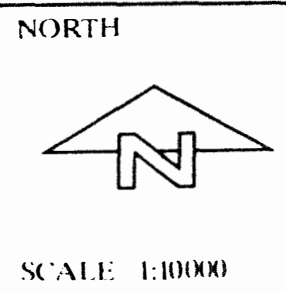


- IMPROVEMENT PLAN BOUNDARY**
 IMPROVEMENT PLAN BOUNDARY
- MRS ZONES AND RESERVATIONS**
- URBAN
 - INDUSTRIAL
 - PUBLIC PURPOSES
 - CONTROLLED ACCESS HIGHWAYS
 - IMPORTANT REGIONAL ROADS
- CONSERVATION AREA USES**
- WETLAND-WILDLIFE AND HABITAT MANAGEMENT
 - DEEP WATER
 - SHALLOW WATER
 - TREE PROTECTION AREA
- OPEN SPACE USES**
- RECREATION AND LEISURE
 - RECREATION, LEISURE AND SPORT
 - REAFFORESTATION
- OTHER USES**
- MULTI-USE TRAIL
 - WALKWAY
 - PONY CLUB
 - WILDLIFE OBSERVATION POINT
 - HERDSMAN LAKE WILDLIFE CENTRE
- 100 0 100 200 300 400 500
Metres

FIGURE 1

IMPROVEMENT PLAN No. 21 HERDSMAN LAKE

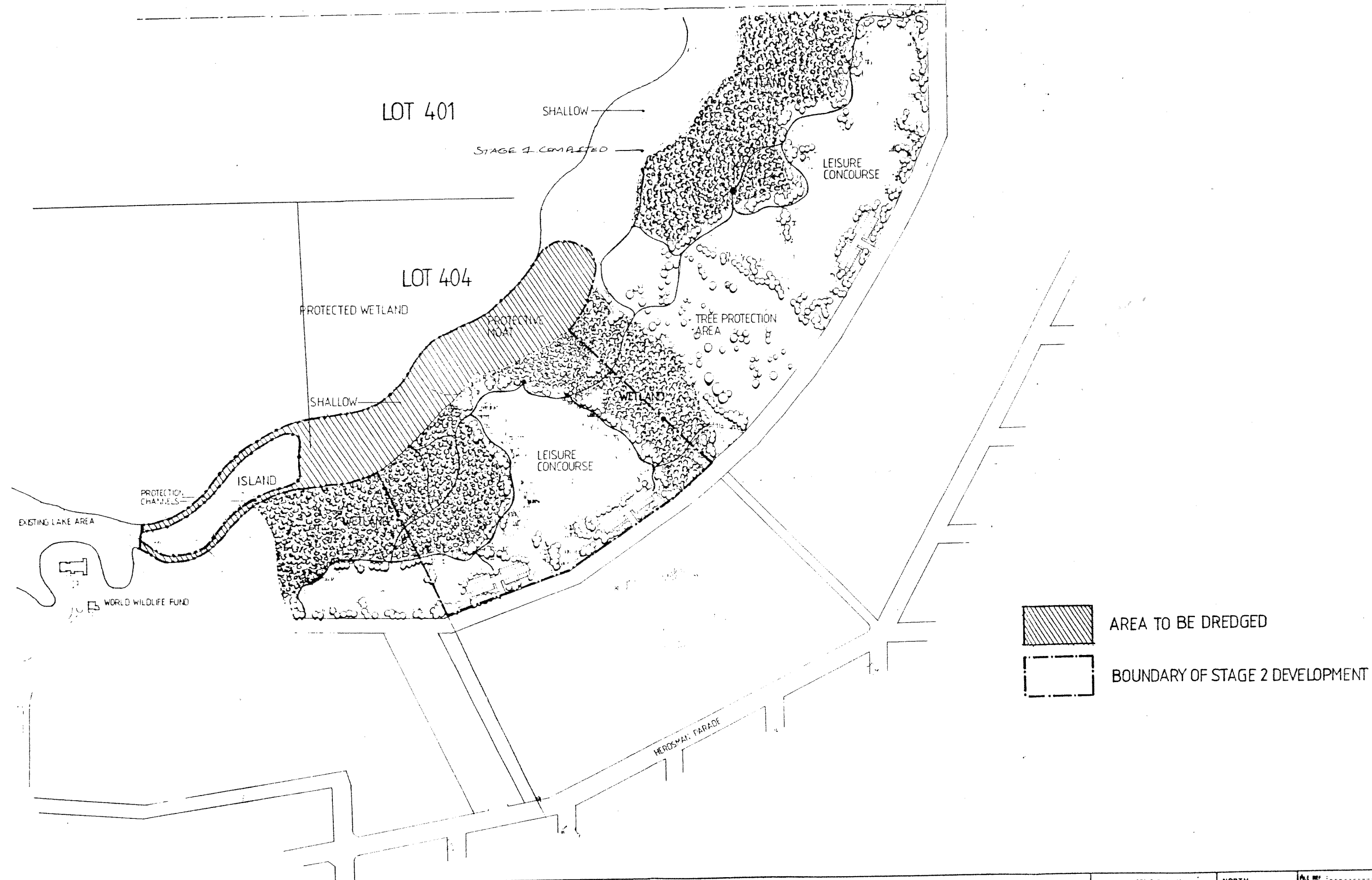
DRAFTSMAN : T.A. SERVAAS
 AUTHORIZED : D. BROWN
 EXAMINED : *De launson 16/8/85*
 DATE : 8.7.85
 REVISED :

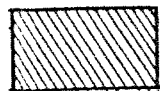
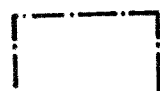


FILE REF : SP/003
 PLAN REF :

PLAN No.
2.0516

FIGURE 2



-  AREA TO BE DREDGED
-  BOUNDARY OF STAGE 2 DEVELOPMENT