



Amendment to the
ASSESSMENT REPORT

For the Environmental Impact Statement
(as amended) for

**The Marina Hindmarsh Island
(Marina Extensions and
Waterfront Development)**



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Planning SA
Department for transport,
Urban Planning and the Arts

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1 INTRODUCTION

The development of a marina facility, recreational boating services and waterfront housing on Hindmarsh Island has been progressing since the early 1980's. A small marina basin with moorings, a tavern and several residential apartments were first constructed and plans for an expansion of the marina and boating facilities, boating related retail opportunities, tourist accommodation and a large residential land-division were proposed, assessed and approved in the late 1980's – early 1990's. The expansion plans also included a proposed bridge to link the island with the mainland at Goolwa. The bridge was an essential component to enable adequate access to the island as a requirement of the State Government.

The construction of the approved development was delayed during the mid 1990's by a ban on the bridge construction by the Commonwealth Government due to Aboriginal Heritage concerns. The right to construct the bridge has been the subject of lengthy court proceedings and a Royal Commission and will not be further assessed in this document. It should be noted that the State Government, based on legal advice, has decided to construct the bridge. A Crown Development Approval was granted. The bridge is currently under construction and is expected to be completed in early 2001. This action has enabled the proponent to recommence construction of the approved development. Refer to figure 1 for an aerial view of the existing facilities and current construction of residential stages. The bridge will provide access to the island, which is likely to result in increased demand for residential development and increased recreational boating activities on the island.

The proponent was previously the company Binalong Pty Ltd. The proponent is now the company Kebaro Pty Ltd, trading as The Marina Hindmarsh Island. In each case the proponent is managed by the Chapman family who initially developed the marina.

1.1 BACKGROUND

The land for the marina site was first purchased by Binalong Pty Ltd in 1977 (which at the time was proposed in the Development Plan for future urban development) and has been progressively developed over the last 17 years. A planning application was lodged in 1981, with initial approval granted in 1982 by the South Australian State Planning Authority. Council rezoned the land as 'Waterfront' in 1984 to specifically provide for the marina, tavern and a wide range of related service facilities. In 1987 additional land was purchased to expand the site to a total of 330 hectares. Various approvals were subsequently issued as the final plans for the land evolved.

These plans, including the proposal for a bridge with the mainland, were the subject of an Environmental Impact Statement (EIS) and were approved by the Governor in 1990. Refer to Appendix A for a detailed description of the approval processes undertaken to date.



Figure 1: Aerial View of Current Development Site (2000)

1.2 ENVIRONMENTAL IMPACT ASSESSMENT PROCEDURES

Procedures for Environmental Impact Assessment (EIA) in South Australia are set out in the Major Developments or Projects section of the *Development Act 1993*. These procedures apply to development proposals or projects which are of major environmental, social or economic importance and in the opinion of the Minister for Transport and Urban Planning (the Minister) require assessment under this section of the Act.

Prior to the proclamation of the *Development Act 1993*, a Draft EIS and Supplement was required by the Minister, to be prepared by the proponent under Section 49 of the *Planning Act 1982*. The *Development Act 1993* was brought into operation in January 1994 and whilst some provisions of the Act in relation to EIA had changed, the EIA documentation produced under the *Planning Act 1982* is relevant under the *Development Act 1993* and able to be used and revised. The original EIS has now been reviewed and amended under Section 47 of the *Development Act 1993* and further assessment has now been completed under that Act.

The following amendment process has been undertaken:

- The proponent prepared a Review/Amendment of the EIS, as required under Sections 48(4) and 47(2a) of the Act, and submitted the document on 19 June 2000 to the Minister for consideration.
- An analysis of the review of the EIS was undertaken to determine the significance of any proposed changes and whether the EIS would need to be formally amended under Section 47 of the Act (with or without public consultation). Liaison with relevant government agencies was undertaken to ascertain their comments on the amended proposal. The Departments of Environment & Heritage (including the Environment Protection Agency); Transport & Urban Planning (Transport SA and Department of State Aboriginal Affairs); Human Services (South Australian Health Commission); Administrative and Information Services; Industry & Trade (including Tourism); Education, Training & Employment; Premier & Cabinet; Attorney General; Treasury & Finance; Water Resources and Primary Industries & Resources were consulted. The document was also referred to the Alexandrina Council and SA Water for comment. A copy of government agency and Council comments is provided in Appendix E.
- The Minister for Transport and Urban Planning determined that the proposed modifications do not significantly affect the overall outcomes of the original EIS. The Review/Amendment to the EIS, therefore, did not require further public exhibition.
- In order to satisfy additional statutory requirements since the EIS was first assessed, the amended proposal was referred to the Environment Protection Authority (EPA) for comment.

The final step in the process involves amending the Assessment Report, prior to a Governor's decision on the application for the proposed amendments.

1.3 AMENDED PROJECT DESCRIPTION

The proposed amendments to the approved development are presented by the proponent in the *Review/Amendment to the Environmental Impact Statement on the Hindmarsh Island Bridge, Marina Extensions and Waterfront Development (2000)* document (refer to Appendix D).

1.3.1 Proposed Amendments to the Approved Development

The proposed amendments to the development proposal approved by the Governor comprise minor modifications to improve the layout of facilities and an amended staging program in response to changed market demand since 1990. Generally, the proposed changes comprise the following:

- Smaller sized residential allotments (in accordance with market demand) and consequent increased number of waterfront allotments for land-division Stages 4 & 5. Consequential minor variations to the shape of lagoons and service infrastructure.
- Amended staging of construction to enable the provision of waterfront allotments to meet increased market demand.
- Replacing the motel with timeshare accommodation. Additional tennis court added.
- Minor expansion of the golf course area.
- Addition of a second caretaker accommodation building.
- Addition of a real estate sales office building.
- Addition of a travel lift jetties and an additional storage shed at the boat repair yard slip-way facility.
- Relocation of a second fuel dock to a more sheltered position.
- Minor changes to the location, layout or design of buildings for the marine service and boat construction facility, trailer/boat storage facility, marina office, earth moving facility, heliport, tree nursery, bulk store and marina works depot.
- Minor variations to the road and parking layout.

More specifically, the proposed modifications involve the following changes:

- Alter the boundary between proposed allotments 902 and 903 to allow the inclusion of a Par 3 golf course within lot 902 adjoining the resort. The par 3 golf course was approved a number of years ago.
- Proposed allotment 976 to be increased in size marginally to allow the construction of a pair of houses for caretaker accommodation in place of the approved one house. This will allow staff to be accommodated for the resort away from the resort building in two independent dwellings rather than the one already approved.

- Adjust the boundary between sections 14 and 15, by increasing section 14 and decreasing section 15.
- Shift the approval for marina frontage villa allotments 146-171 and the creation of the permanent drystanding facility and its buildings from stage 3 to stage 2. The proponent has a commercial requirement to construct the northern extension to the marina basin now. The construction for the villa sites would occur at the same time as the marina basin is excavated and the surrounding infrastructure is installed. The market has indicated the demand for this product is high and as only 2 marina frontage villa lots remain in stage 1 from the original 34, supply is short.
- Modern boat handling from the water to hardstand and repair facilities is now undertaken with marine travel lifts. The proponent will incorporate the launch facility within the slipway area during construction of the northern extension to the marina basin.
- An additional slipway storage shed has been included adjacent to the slipway to allow storage of the travel lift and the slipway tractors and associated equipment.
- For ease of operation and a more desirable location due to the prevailing winds, the proponent proposes to relocate a second fuel dock from the northern side of the marina basin to the south western side adjacent the travel lift launch way. This will offer more wind protection for the vessels whilst fuelling. Some of the car parks that will be replaced will not have an adverse impact on parking as there is a large roadside car parking area approved.
- The proposed earthmoving facility and trailer/boat storage will now be better used for a boat owner self repair facility and long term storage. A demand exists for a facility where boat owners can carry out their own repairs and maintenance, usually over an extended period of time. The size of the building and yard area remains unchanged from the original approval.
- The layout of the tree nursery, bulk store and marina construction and operations area has been changed to allow for the development of the Par 3, nine hole golf course. The size of the building remains unchanged as does the area, but the shape of the land area only has been changed.
- It is proposed to shift the hangar at the heliport from its west boundary to its eastern boundary. This will place the hangar near the car parking and will make for safer operation of the facility.
- The resort village now shows 40 units for the timeshare.
- The motel building is now proposed to be added to the timeshare development. There is a demand for timeshare units in the area which can be met from the staged construction of the total timeshare development. It is therefore proposed that the motel building will be converted into 20 units in place of the 40 room motel. The footprint of the building will remain the same.

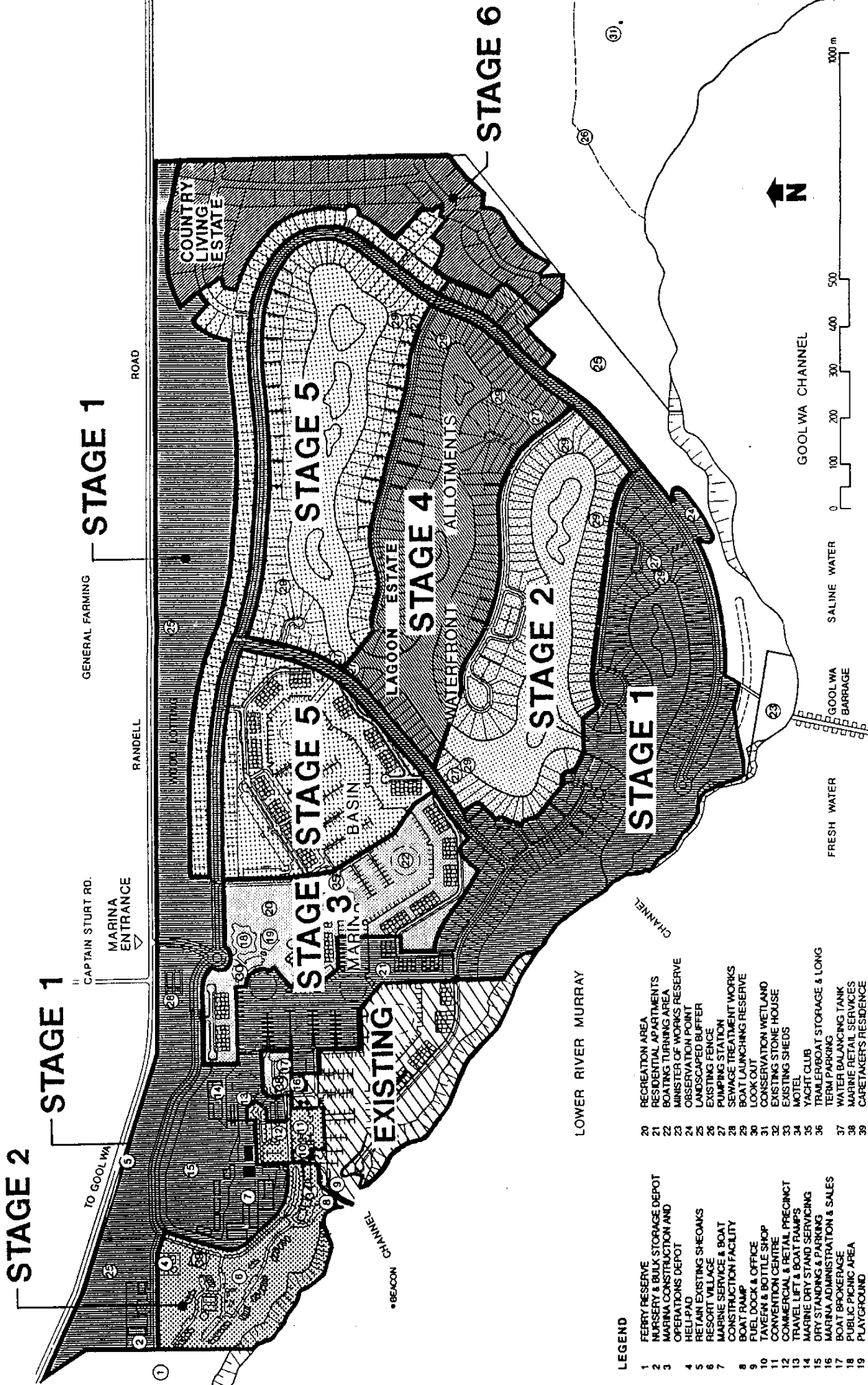
- It is proposed that a second storey be added to the main marina office. The height of the building will be below the approved adjoining boat brokerage building. This will provide an added area of office accommodation as all management of the operations will be housed within this building, as opposed to some activities being conducted in Adelaide.
- The buildings marked '7A, 7B, 7C' in the Review/Amendment to the EIS document (Appendix D) has been increased in depth by 5 metres to allow longer boats to be repaired inside the building. The height of the building will also be increased by a metre.
- It is now proposed to construct a building on the road to the residential area (ie. Excelsior Parade). This would at first be used as a Real Estate information and sales office. When this use concludes, it would become the control building for the woodlot and security centre.
- The road system within the resort area has been reduced. This is to make the resort more secure and increase safety. This is achieved by taking out return roads. The road and parking in the front of what was the motel, has been removed. This will enhance the view of the resort from the water and provide a larger landscaped area on the river frontage. Replacement parking is provided along the service road.
- A third tennis court has been added behind the first resort building.

1.3.2 Staging of Development

The original proposal envisaged that the development would be constructed on a staged basis (refer to Figure 2). Generally, the marina basin would be progressively extended based on demand for berths and adjacent residential apartments. The expansion of the residential component beyond Stage 1 was dependent upon the provision of a bridge. Once a bridge was provided, each residential land-division stage would only be undertaken when more than half of the previous stage had been sold.

The Governor's approval requires that plans for the creation of allotments for the Stage 2 residential component not be submitted for titles until the bridge has been constructed to the point of substantial commencement and 50% of Stage 1 allotments are sold and transferred to purchasers. Subsequent residential stages can not be constructed until 50% of allotments for the previous stage have been sold and transferred. The bridge is now nearing completion and consequently, the creation of residential allotments for Stage 2 (modified in 1993) can now occur.

Due to time delays resulting from legal action over the bridge and changed market demand during the 1990's, the proponent has revised the approved staging plans and now wishes to amend them to enable the following:



- LEGEND**
- | | | | |
|----|---|----|--|
| 1 | FERRY RESERVE | 20 | RECREATION AREA |
| 2 | NURSERY & BULK STORAGE DEPOT | 21 | RESIDENTIAL APARTMENTS |
| 3 | MARINA CONSTRUCTION AND OPERATIONS DEPOT | 22 | BOATING TURNING AREA |
| 4 | HELIPAD | 23 | MINISTER OF WORKS RESERVE |
| 5 | RETAIN EXISTING SHEOAKS | 24 | OBSERVATION POINT |
| 6 | RESORT VILLAGE | 25 | LANDSCAPED BUFFER |
| 7 | MARINE SERVICE & BOAT CONSTRUCTION FACILITY | 26 | PUMPING STATION |
| 8 | FUEL DOCK & OFFICE | 27 | SEWAGE TREATMENT WORKS |
| 9 | TAVEM & BOTTLE SHOP | 28 | LOOK OUT |
| 10 | CONVENTION CENTRE | 29 | BOAT LAUNCHING RESERVE |
| 11 | COMMERCIAL & RETAIL PRECINCT | 30 | CONSERVATION WETLAND |
| 12 | TRAVEL LIFT & BOAT RAMPS | 31 | EXISTING STONE HOUSE |
| 13 | MARINE DRY STAND SERVING | 32 | EXISTING SHEDS |
| 14 | MARINA ADMINISTRATION & SALES | 33 | MOTEL |
| 15 | BOAT BROKERAGE | 34 | YACHT CLUB |
| 16 | PUBLIC PICNIC AREA | 35 | TRAILER/BOAT STORAGE & LONG TERM PARKING |
| 17 | | 36 | WATER BALANCING TANK |
| 18 | | 37 | MARINE RETAIL SERVICES |
| 19 | | 38 | CARETAKER'S RESIDENCE |
| | | 39 | |

Figure 2: Original Staging Plan (1990)

- Most of the uncompleted components of Stage 1 are now to be completed as Stage 2, including the northern expansion of the marina basin, slip way (now with the addition of travel lift jetties) & boat ramp facility, drystanding & parking area and the boat service & construction facilities. It is proposed to create a ‘boating hub’ in the north-western part of the development site, with commercial facilities for the service, repair and construction of boats and for retail opportunities. In addition, facilities would be provided for marina users and residents to clean, repair and build their own boats (including temporary and long-term storage areas). It is anticipated that this area would progressively be developed as part of Stages 2 and 3. Establishment of the timeshare resort would also commence during Stage 2.
- The residential apartments to the north and north-east of the marina are now proposed to be completed as part of Stage 2 (rather than Stage 3) to allow the installation of infrastructure for the construction of the northern expansion of the marina.
- The proponent is uncertain whether the convention centre would be constructed as part of Stage 2 or as part of future stages. This is considered a low priority component, however, Council has indicated that there is a definite need for convention facilities in the region at present, although for a facility with a much larger capacity (ie. for 250 – 300 people).
- The Stage 2 motel component is to be replaced by 20 timeshare units as an expansion of the resort village. The proponent expects that this component will be started as part of Stage 2.
- A drive-thru bottleshop will not be constructed at this stage, as an ‘over-the-counter’ sales outlet is provided by the existing tavern. The tavern operators may wish to construct such a facility in the future.
- Stage 4 to be completed as Stage 3 and the Stage 3 marina extension to be completed as Stage 4. The reason being that there is now a greater demand for waterfront allotments and less demand for marina berths. A small number of larger streetfront allotments that formed the southern part of Stage 6 (Country Living Estate) will also be completed as Stage 3.
- The design of the residential peninsula between Stages 4 and 5 lagoons has also been modified to provide a greater number of smaller sized allotments (similar to the approach adopted for Stage 2). The peninsula now resembles an island as a narrow waterway is proposed to be provided between the Stage 5 and proposed Stage 3 lagoons for better water circulation.
- Stage 5 residential component to be completed as sub-stages 5A – 5D, with the western half of the lagoon and waterfront allotments (5A) completed before the eastern half (5B). The eastern half of the streetfront allotments along the loop road (Excelsior Parade) would be completed next (5C), with the western half the last to be completed (5D). The design of the residential lagoon of Stage 5 has also been modified to create a greater area of water frontage and additional reserve frontage allotments. To facilitate this, the loop road (Excelsior Parade) has been moved further to the north and now forms more of an extension of Providence Place. This will require modification to the existing alignment under the *Roads (Opening and Closing) Act 1991*. An additional 69 allotments are

proposed (ie. from 271 to 340), with an increase in the number of waterfrontage allotments (81 to 174) and a decrease in the number of street/reserve frontage allotments (190 to 166).

The proponent advises that the streetfront allotments north of the eastern marina extension (ie. Stages 5 and 5D) may be constructed in Stage 3 if sufficient demand is generated in the near future (especially once the adjoining woodlot is established). The progressive establishment of the Stage 5 residential development has been adopted in response to the construction procedure employed. The transport of excavated materials and the disposal of groundwater from dewatering is conducted from west to east, hence the pattern of the staging. Future increased economic demand, however, may encourage the proponent to construct the whole of Stage 5. In addition, market demand may require a future modification to the layout plan, especially to create additional waterfront allotments (by the creation of waterway extensions or small residential islands for example).

The proposed amended staging plans are shown in Figures 3 and 4. It should be noted that the proponent still intends creating wildlife islands within all lagoons, although they are not indicated on Figure 4.

The revised staging plans and modifications to the layout and number of allotments will result in the creation of 1052 residential allotments. Refer to Table 3 for a breakdown of each stage.

The following tables indicate the changes to the number of approved allotments from 1990 – 2000.

STAGE	WATERFRONT	STREETFRONT/ RESERVEFRONT	APARTMENTS	TOTAL
1	63	83	38#	184
2	90	9	0	99
3	0	0	68	68
4	89	52	0	141
5	81	191	65	337
6	0	50*	0	50
GRAND TOTALS	323	385	171	879

TABLE 1: Allotments approved in 1990

STAGE	WATERFRONT	STREETFRONT/ RESERVEFRONT	APARTMENTS	TOTAL
1	63	83	38#	184
2	100	100	0	200
3	0	0	68	68
4	89	52	0	141
5	81	191	65	337
6	0	50*	0	50
GRAND TOTALS	333	476	171	980

TABLE 2: Allotments approved in 1993

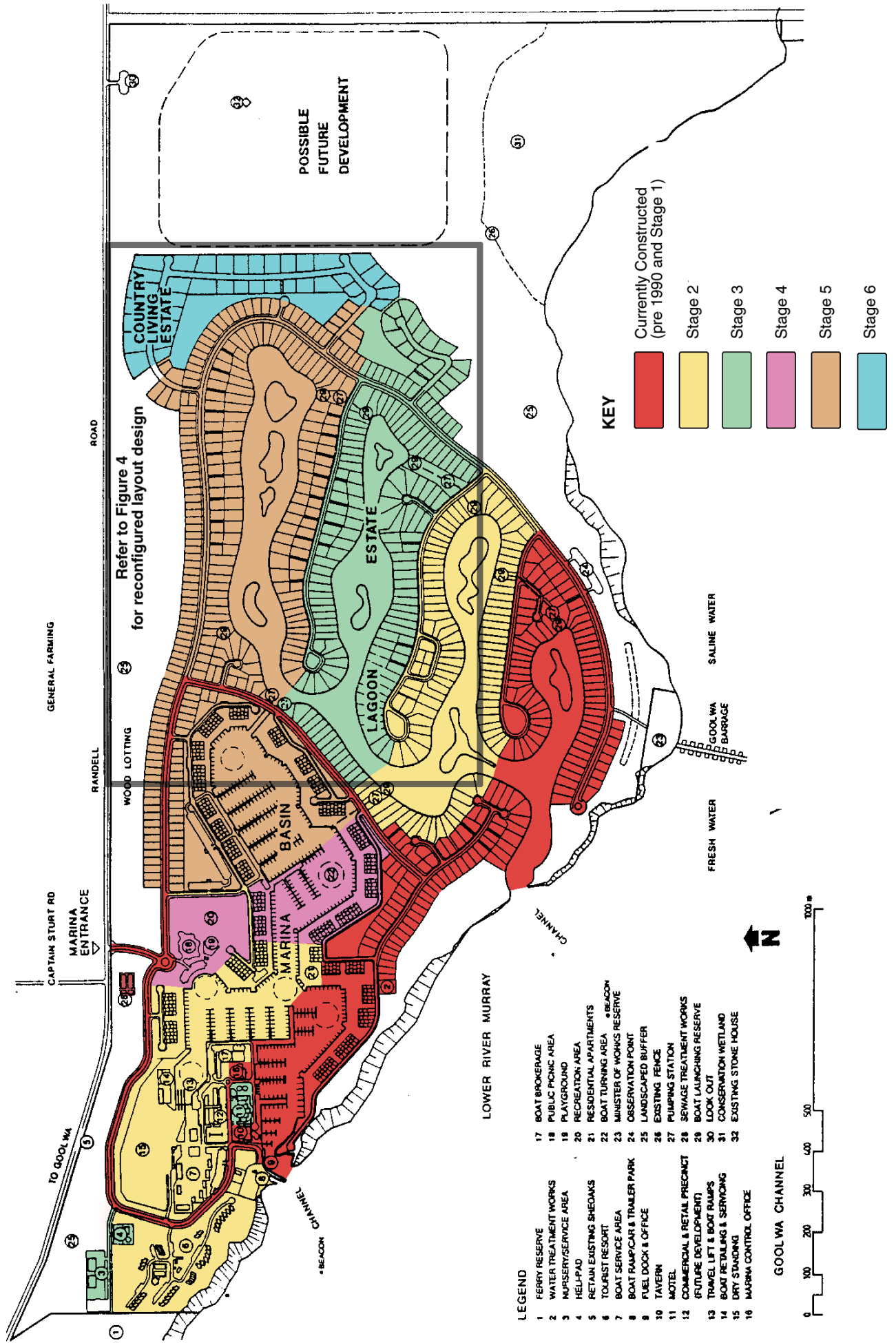


Figure 3: Proposed Amended Staging Plan (General Layout)

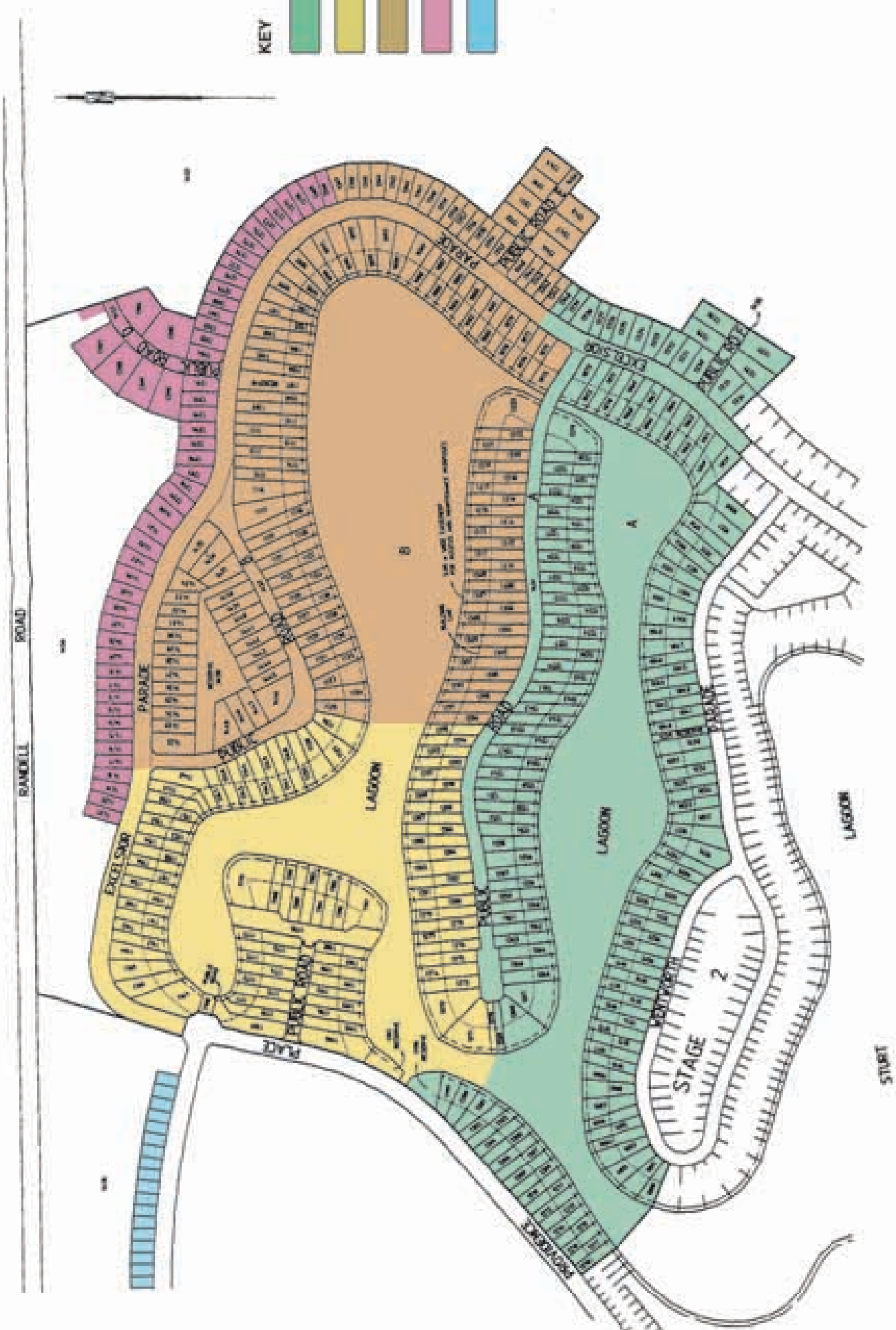


Figure 4: Amended Staging Plan (Residential Component)

STAGE	WATERFRONT	STREETFRONT/ RESERVEFRONT	APARTMENTS	TOTALS
1	63	83	34#	180
2	100	100	31	231
3 (originally stage 4)	142	17	0	159
4 (original stage 3)	0	0	41	41
5	0	29	65	94
5A	85	0	0	85
5B	89	55	0	144
5C	0	54	0	54
5D	0	28	0	28
6	0	36*	0	36
GRAND TOTALS	479	402	171	1052

TABLE 3: Proposed amended allotment numbers and staging.

* larger country living blocks

includes 24 apartments approved prior to 1990

Summary of Changes

- In 1993, approval was granted for a modified layout plan that provided a greater number of smaller sized allotments to create an additional 101, comprising predominantly of street/reserve front allotments.
- It is currently proposed to modify the layout plan for Stage 5 to create an additional 68 allotments. A total of 405 allotments would be created (compared with the approved 337 allotments), comprising 174 with water frontage (cf. 81 - an increase of 93 allotments) and 166 with street/reserve frontage (cf. 191 - a decrease of 25 allotments). It is also proposed to create 159 allotments as Stage 3, compared with 141 for the original stage 4 – an increase of 18 allotments, with a significantly greater proportion with water frontage of street/reserve frontage.
- Compared with the 1990 Governor’s approval it is proposed to increase the total number of residential allotments from 879 (comprising 323 allotments with water frontage, 385 with street/reserve frontage and 171 apartments) to 1052 (comprising 479 with water frontage, 402 with street/reserve frontage and 171 apartments) – an increase of 173 allotments.

2 PROJECT RATIONALE

2.1 DEMAND FOR ALLOTMENTS

For the Stage 1 residential component, out of the total of 184 allotments approved (comprising 63 waterfront, 83 street/reserve front and 38 apartment allotments), all have been sold apart from a single streetfront allotment. A total of 42 detached dwellings and 12 apartments (including 7 completed prior to 1990) have subsequently been constructed. The construction of housing has previously been slow due to the uncertainty surrounding the bridge construction, however, with the near completion of the bridge it is expected that construction of dwellings in the remainder of Stage 1 will increase significantly. Housing construction activity is expected to further increase due to the recent sale of nearly half of Stage 2 allotments.

For the Stage 2 residential component, out of the total of 200 allotments 67 out of the 100 waterfront allotments approved and 13 out of the 100 street/reserve front allotments approved have been sold.

The proponent advises that it is expected that all waterfront allotments for Stage 2 will be sold before Christmas 2000 and allotments for Stage 3 will be pre-released in the immediate future. Construction of Stage 3 is expected to commence in early 2001 and be completed by September.

The Review/Amendment to the EIS (Section 2.2.2) states that, based on growth trends estimated in the *South Coast Urban Growth Strategy (1997)*, there is expected to be a shortfall of urban land for residential development in the region and limited options for further expansion. In particular, in recent years there has been strong demand for allotments with waterfrontage, sea views and special character, such as provided by Encounter Lakes, The Bluff and McCracken Country Club residential developments at Victor Harbor. It is anticipated that The Marina Hindmarsh Island would satisfy part of this demand, especially with the bridge in place. The bridge is also expected to provide opportunity for further residential development on the island to cater for future urban growth in the region, although the current Development Plan indicates that the current marina/residential development should be substantially completed prior to other similar proposals being considered.

Strong demand for waterfront housing has enabled the proponent to sell allotments with limited marketing.

In addition, the proponent considers that there is strong market demand for timeshare units in the region, therefore, the approved 40 room Motel is to be replaced by 20 timeshare units. This would expand the approved Resort Village component that is also to be developed as a timeshare arrangement to 60 units.

2.2 DEMAND FOR MARINA BERTHS

Since the marina expansion was approved in 1990, there has been a slower than expected increase in demand for marina berths (mainly due to the lack of a bridge). Currently, a total of ~227 marina berths are leased for terms ranging from 1 night to 12 months (with most being considered as permanently moored). This number usually increases over the summer period, with an additional 30 boats on average being moored. Demand for drystanding berths has continued to grow and there are currently ~ 100 boats stored within the temporary facility. The proponent has conservatively estimated that an additional 100 boats may reside at the marina within the next 12 months.

The proponent anticipates that, with the provision of the bridge, the balance of the 1150 berths would be occupied within 8 years (as originally expected).

The proponent has advised that there is strong demand to establish a ‘boating hub’ at the marina for a whole range of activities, such as boat storage, maintenance, servicing, construction, sales and retail. Potential exists to create up to 150 jobs over the long-term. With the establishment of these types of facilities, it is expected that demand for marina berths will increase.

3 COMPATIBILITY WITH GOVERNMENT POLICIES

3.1 THE PLANNING STRATEGY

Since the assessment and approval of the original proposal, the Planning Strategy for South Australia was introduced in 1994. This document provides the integration of economic, environmental and social strategies to ensure future planning achieves an integrated and shared vision across Government.

The project area subject of this application and assessment is covered by the general strategic directions contained within the Planning Strategy – Country South Australia (Premier of South Australia, 1996) and more specifically by the strategies therein relating to Outer Metropolitan Adelaide (Mt Lofty Ranges). The Strategy refers to the objectives and policies contained in the *Mt. Lofty Ranges Regional Strategic Plan (1993)*. For the Mt Lofty Ranges, the most relevant to the development include:

- Protecting watercourses and land use.
- Incorporating water sensitive criteria and restricting highly polluting activities.
- Protecting the coast and visual amenity.
- Providing urban development in suitable locations and in an appropriate manner.
- Developing a sustainable tourism industry based on natural and cultural resources.

The policies for the Mt. Lofty Ranges have been incorporated into the Development Plan for the Alexandrina Council through a Consolidation Plan Amendment Report (PAR). It should be noted that, whilst Hindmarsh Island was included in the *Mt. Lofty Ranges Regional Strategic Plan* (ie. as part of the Fleurieu Peninsula), geographically it is not part of the Mt. Lofty Ranges. Thus, the policies for the Ranges have not been incorporated into the zoning policies for Hindmarsh Island, therefore, the general policies in the Planning Strategy – Country South Australia apply. The Alexandrina Council is currently preparing a management plan for developing policies specific to Hindmarsh Island.

The establishment of a marina, but more importantly, a residential sub-division on the south-western side of Hindmarsh Island can be considered to be generally in accordance with the objectives and policies of the Strategy. In particular, the site is located near the ferry (and soon to be completed bridge) and existing urban development on the north-western side of the island. The site also lies across the River Murray from Goolwa and can be considered as complementary to, or an extension of, the township. Tourism on the island, lower lakes and Coorong would also be promoted by the development, especially water based activities. The maintenance of the environment, especially water quality in the marina basin and residential lagoons (and ultimately the River Murray), is a key objective of the development to ensure that it is sustainable and for marketing purposes. Measures to ensure pollution from boating activities and stormwater run-off is prevented and/or managed have been or will be adopted.

3.2 THE DEVELOPMENT PLAN

Since the time of the Governor's approval, the subject land has been rezoned from Rural Waterfront Zone, General Farming Zone and Conservation Zone to a Residential Marina (Hindmarsh Island) Zone. The objectives of the Zone are to:

- Establish compact residential marina development, including boat maintenance facilities, with retail and commercial opportunities.
- Maintain the open rural character of the area when viewed from the mainland, the River Murray and Randell Road.
- Protect the water quality of the River Murray, marina basin and residential lagoons.
- Protect important wetland, coastal foreshore and bird habitat areas.

Whilst the existing and future stages of the development are consistent with the policies of the Zone, parts of the Stage 1 residential component are outside of the Zone. These areas are included in the Conservation (Hindmarsh Island) Zone and Rural Waterfront (Hindmarsh Island) Zone due to an apparent drafting oversight when the boundary of the Residential Marina (Hindmarsh Island) Zone was created. The zones for the marina development site were created by the State Government, which would be responsible for amending the zone boundaries.

The proponent requested that land east of the site (Sections 14 & 15) be considered for rezoning to enable the future expansion of the country living component. The area is currently zoned General Farming (Hindmarsh Island) and was envisaged as an area for the expansion of the residential component in the original EIS.

3.3 ENVIRONMENT PROTECTION ACT 1993

The Environment Protection Agency (EP Agency) considered the current application to amend the original EIS and existing development approval and formed the view that the proposed amendments will not impact adversely on the environment in terms of the creation of environmental harm (including environmental nuisance). The EP Agency further advised that, notwithstanding this, marinas do have the potential to be sources of environmental harm through discharges from vessels using the marina. Additionally, parking areas have the potential to generate contaminated runoff, with the pollutants entering waterways via stormwater. In particular, potential exists for environmental harm from toilet wastes to occur if vessels are used for overnight accommodation at the site.

The EP Agency suggests that overnight accommodation, therefore, should not be allowed on site unless vessels are fitted with tanks to hold wastewater generated on board, or toilet facilities are made available onsite. There must also be a location designated in the marina where holding tanks can be pumped out (It should be noted that the marina currently provides pump-out facilities and that the minority of boats that do not have holding tanks are not allowed to discharge into waterways and owners must use the toilets available at the marina office complex). Landscaping or other structures used to accept stormwater from paved areas, such as carparks, should provide filtration of stormwater prior to discharge to the stormwater system or the riverine environment. A Contingency Plan should be developed and maintained for the control, containment or mitigation of any spills, accidents or plant

failures that may cause environmental harm. Refer to Appendix E for a copy of the detailed comments.

Officers from the agency have inspected the existing Stage 1 marina development and consider that the operator is meeting its general environmental duty and is complying with all relevant environment protection policies under the Act, in particular, the *Environment Protection (Marine) Policy 1993*.

The amended proposal comprises the following aspects that are listed as Prescribed Activities of Environmental Significance (Schedule 1) under the *Environment Protection Act 1993* and would require licensing/authorisation.

- **Marinas and Boating Facilities:** the conduct of (a) facilities comprising pontoons, jetties, piers or other structures (whether on water or land) designed or used to provide moorings or dry storage for 50 or more powered vessels at any one time or (b) works for the repair or maintenance of vessels with the capacity to handle 5 or more vessels at any one time or vessels 12 m or more in length.
- **Earthworks Drainage:** the conduct of earthworks operations in the course of which more than 100 kilolitres of waste water containing suspended solids in a concentration exceeding 25mg/l is discharged directly or indirectly to marine waters or inland waters.
- **Waste Treatment and Disposal:** sewage treatment works that involve the discharge of treated or untreated sewage to land or water with a peak loading capacity designed for more than 1000 persons per day.

The proponent currently holds an Environment Protection Authority licence for the operation of the waste water treatment plant (including woodlot). This is in addition to a licence issued by the South Australian Health Commission (refer to Section 3.4.2).

The EP Agency advises that a licence is not required for earthworks drainage associated with the excavation of waterbodies as the discharge water quality would not exceed the standards that are set for licensing, especially for suspended solids. Dewatering trials for the construction methods adopted have been undertaken to confirm this.

The licensing process for the marina has been initiated by the EP Agency and relevant officers from the agency have inspected the site and its facilities. It is considered that the existing marina is being operated in a way that more than fulfills the licensing requirements under the Act (especially in accordance with the provisions of the relevant ANZECC guidelines and by undertaking water quality monitoring). The licence would also cover the additional fuel dock and effluent pump-out facility, slip-way and boat maintenance, repair and building activities. The proponent has ensured that pollution spill containment and removal equipment is available at the marina and contingencies for their use have been prepared and promoted.

The EP Agency advises that to obtain a licence, the marina proposal (construction and operational phases) would need to comply with the *Best Practice Guidelines for Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand* prepared by ANZECC (1997). The guidelines focus on the planning, establishment and management of vessel waste reception facilities and services to facilitate a reduction in

marine pollution from shipping and boating, wastes, including solids, liquids and gases. In accordance with the guidelines and with assistance from Environment Australia, a strategy for the management of waste has been prepared for the existing marina facility (refer to Section 4.1.4).

It is suggested that the design and construction of the 'boating hub' area (including boat ramp and slip-way) should be based on the principles outlined in the *Stormwater Pollution Prevention Code of Practice for Local, State and Federal Government* and should include a range of strategies to collect, treat, store and dispose of stormwater from the final form of the development, whilst minimising discharge into the marine environment. A Soil Erosion and Drainage Management Plan for the construction and operational stages may need to be prepared.

In addition, the development of various components of the proposal (especially the residential land-division) would generally need to comply with the Draft *Environment Protection (Water Quality) Policy* and follow the *Stormwater Pollution Prevention Codes of Practice for the Building & Construction Industry* (draft); *for General Industry, Retail and Commercial Premises* (draft); and *for the Community*. This would ensure compliance with the Code and fulfil the proponents' general environmental duty, under section 25 of the Act, to take all reasonable and practical measures to prevent or minimise any environmental harm from the development.

3.4 OTHER RELEVANT LEGISLATION

3.4.1 Harbors and Navigation Act 1993

The Harbors and Navigation Act 1993 applies to coastal and inland waters of the State and has relevance for the proposal in regard to the provision of boating facilities and the management of boating activities (especially navigation, safety and pollution control). The government agency responsible for administering the Act, Transport SA, has considerable experience in design matters for marina and other boating related facilities and would be responsible for auditing certification processes for such structures on behalf of Planning SA.

In addition, the requirement for satisfactory oil spill and fire fighting facilities and associated contingencies for the operation of a marina may need to be addressed, especially in regard to the South Australian Marine Spill Contingency Action Plan, the *Pollution of Waters by Oil and Noxious Substances Act 1987* and the MARPOL Convention for the Prevention of Pollution from Ships. Consultation with the EP Agency should also be undertaken to address pollution and waste management requirements (refer to Section 3.3).

If foreign vessels are expected to use the facility then compliance with Australian Quarantine Inspection Service (AQIS) and Australian Customs Service quarantine requirements may be needed.

3.4.2 Public and Environmental Health Act 1987

The proponent would need to comply with the *Public and Environmental Health Act 1987* in regard to the general disposal of effluent and the maintenance of suitable water quality within the marina basin and waterways to protect public health and amenity. In particular, consultation with the Department of Human Services (South Australian Health Commission) would be required to ensure suitable standards are adopted for effluent disposal (including the boat effluent pump-out facility). Approval is required from the Commission for the construction and operation of a collection, treatment and disposal/irrigation plant system (Council is responsible for approving on-site facilities only, such as septic tanks or package aerobic treatment plants).

The proponent currently holds an approval from the Department of Human Services for the operation of the existing wastewater treatment and filtration/chlorination plant. The proponent has also obtained approval from the Department of Human Services for the recent expansion of the treatment plant to increase the capacity to 1,000 persons per day.

Minimising inputs into the waterways and providing good water exchange rates in waterways and the marina are considered the most effective measures for maintaining suitable water quality standards for human use and for reducing the likelihood of problems arising (especially elevated levels of faecal coliforms, odours, algae blooms, mosquitoes and other nuisance organisms)

3.4.3 Aboriginal Heritage Act 1988

The Department of State Aboriginal Affairs, which administers the Act, requires that in the event archaeological items (in particular, skeletal remains) are uncovered during earthmoving, work should cease and the Department be contacted immediately. The proponent should ensure construction contractors are aware of this requirement.

3.4.4 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

New Commonwealth environmental legislation, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), came into operation on 16 July 2000. The Act establishes an environmental assessment and approval system based on matters of national environmental significance that is separate and distinct from State systems. The Act requires proponents of actions to which the Act may apply to seek a determination from the Commonwealth Environment Minister regarding whether or not their action is a 'controlled action' and therefore, subject generally, to Commonwealth assessment and approval processes. The proponent has submitted a referral form with the relevant details on the likely impacts of the proposed amendments to Environment Australia for a determination as to whether the EPBC Act applies. Environment Australia is required to notify the proponent as to whether the Act applies (ie. that the proposal is a 'controlled action') by 13 November 2000.

4 ISSUES AND CONSEQUENCES

The main issue arising from the proposed amendments is the creation of an additional 173 residential allotments and the consequent additional demand for services, especially sewage disposal. Other issues include a revised staging plan, the control of pollutants, maintenance of suitable water quality, protection of sites of environmental and Aboriginal Heritage significance and on-going management, maintenance and monitoring responsibilities.

4.1 SEWAGE AND WASTE DISPOSAL

Once the entire development is completed, the sewage treatment plant would be required to process effluent from the following sources:

- 881 detached dwellings
- 171 residential apartments
- 60 time share units
- marina office complex
- tavern
- 150 person capacity convention centre
- two boat effluent pump-out facilities
- real estate office
- caretakers residence
- toilets for the 'boating hub' area

Stormwater run-off from hard surfaces within the boating hub area and bilge water pumped from boats would be treated to remove hydrocarbons and directed to the woodlot, via the filtration/chlorination plant.

The proponent advises that the existing plant has been expanded to cater for the demand that is to be generated due to increased development activity on site, especially the establishment of dwellings when the bridge is completed. The plant would be further expanded (ie. on a modular basis) ahead of future demand, as further components of the development are progressively completed. At this stage, it is difficult to accurately predict future demand due to uncertainties regarding the nature and progress of development on site. Over time, experience with the operation of the plant would enable more accurate prediction to be made. It is suggested that volume thresholds should be established by the proponent, in consultation with the Department of Human Services and the Environment Protection Agency, as triggers for future expansions to ensure adequate capacity is provided.

4.1.1 Wastewater Treatment Plant

A wastewater treatment and filtration/chlorination plant (based on a vacuum system) has been constructed and operated since 1989 to service the tavern, marina office complex, boat effluent pump-out station, residential apartments (11 out of the 24 approved have been constructed) and 42 detached dwellings constructed as part of Stage 1. A recent expansion of the plant has increased the capacity from 600 persons/day to 1000 persons/day. This capacity has been approved by the Department of Human Services to cater for approximately 286 residential dwellings. The plant is operated in accordance with the requirements of the

Department of Human Services and allotment owners are charged a rate for effluent collection under an encumbrance arrangement.

With Stage 1 allotments nearly sold out and the recent strong demand expressed for Stage 2 allotments (80 out of 200 allotments already sold), it is expected that demand for sewage disposal would increase significantly over the next 1-2 years. The plant could potentially be required to cater for up to 350 detached dwellings and 65 apartments.

The filtration/chlorination plant for the woodlot would also be required to treat run-off from hard surfaces associated with the 'boating hub' area. Hydrocarbons and other pollutants would be collected and removed, prior to the water being directed to the filtration/chlorination plant and woodlot, via a storage pond and balance tank. A second boat effluent pump-out facility is proposed to be constructed next to the proposed second fuel dock (in the vicinity of the slip-way/boat ramp facility) and would also be connected to the vacuum system. A proposed facility for the collection and disposal of bilge water is also anticipated to be established in the same location.

Given that the plant has been expanded to cater for 1000 persons/day, there should be adequate capacity for the next 2-3 years before any further expansion would need to be considered. The system has been designed so that larger vacuum pumps and/or additional ponds could be added to increase capacity if required in the future. The proponent advises that two further expansions are envisaged to cater for up to 2500 persons/day.

4.1.2 Woodlot

At the present time, the waste water treatment plant does not generate enough excess water for disposal onto an irrigated woodlot as originally proposed. When the plant is at its highest use during the summer months, evaporation from the holding ponds significantly reduces the amount of water to potentially be disposed of.

Whilst the woodlot has not been completed for Stage 1 (due to lack of excess wastewater generated), the area has been prepared in readiness for when sufficient volumes for irrigation are available. It is anticipated that the woodlot would become operational in the next 1-2 years. At this time, the trees would be planted, the irrigation system completed and groundwater monitoring commenced. The woodlot would be managed in accordance with the requirements of the Department of Human Services.

4.1.3 Boat Effluent Pump-out Facility

The marina facility is currently served by a boat effluent ('blackwater') pump-out facility that is connected to the vacuum sewage collection system. The facility is located near the entrance channel and is available for public use. It should be noted that all boats on the River Murray in South Australia that are used for onboard living (especially house boats) are required to collect all blackwater and dispose of it at suitable pump-out locations along the river. The facility at Hindmarsh Island Marina has been approved by Transport SA for such use.

It is proposed to provide a second pump-out point near the boat ramp/slip-way facility for users of the marina. The facility would also be connected to the vacuum system. It is

intended that the facility be located near the proposed second fuel dock to establish a central point for serving boats.

At this stage, it is difficult to calculate the demand from the pump-out facility on the treatment plant as use of the facility varies on a seasonal basis. Currently, demand for the facility is not high, with only one-two boats using it during winter and a maximum of 15-20 boats in summer. It should be noted that in summer, however, the treatment plant operates at greater efficiency due to higher microbial action and increased evaporation from ponds.

4.1.4 Refuse Collection

General refuse collection for the residential development would be conducted by Council as part of its usual responsibilities. At present, the Council undertakes this responsibility for the small number of dwellings that have been established. Refuse from the tavern, marina and office is also collected by the Council for a fee.

The proponent has had prepared a *Marine Waste Reception Facilities Needs Analysis – Site Needs Analysis for the Marina Hindmarsh Island (February 2000)*, in consultation with Environment Australia, for the marina, maintenance/repair area and office complex to ensure the suitable disposal of waste types. Primarily, this approach is a safeguard for maintaining suitable water quality. As part of this process, the proponent has applied for funding under the Marine Waste Reception Facilities Program (Natural Heritage Trust - Coast and Clean Seas initiative) to implement the plan. The marina will be used by the Commonwealth Government as a demonstration site for best practice facilities for the operation of a marina.

The waste management plan would need to be expanded to cater for the ‘boating hub’ area or if further recycling is to be undertaken. Specific waste types, especially noxious or polluting substances, would need to be collected and disposed of in accordance with the requirements of the EP Agency. The different waste streams to be generated should be identified and responsibilities for collection and disposal allocated.

4.2 WATER SUPPLY

The existing development is served by an independent water supply provided by the proponent. A water treatment plant currently provides residents and facilities with a water source for domestic use from the River Murray. With the expansion of the residential component, a reticulated mains supply would become the main source of water for the development. SA Water will install a pipeline along the bridge to a connection point on the island. The proponent has installed a distribution pipeline to connect with the SA Water mains that is anticipated to be installed in early 2001. This system would adequately cater for current and future demand from the development. SA Water would charge the proponent for the delivery of water to the site, with costs recouped from allotment owners who would be charged for the water they use. The existing plant would be retained for the marina office, commercial area and tavern and as a back up for the mains supply.

4.3 WATER QUALITY

Given that the marina facility and waterfront residential development rely upon waterbodies for their marketing appeal, the proponent has placed a high priority on ensuring suitable water quality standards are achieved. In addition, the urban, commercial, recreational and ecological resource values of the River Murray in the vicinity of the development site must be maintained. The overall philosophy of the development is to avoid or minimise factors that may compromise water quality, in particular, pollution from boating activities and contaminated stormwater run-off.

4.3.1 Residential Land Division and Lagoons

Rather than direct stormwater into the waterways, the proponent has established a grassed swale system for the interception and treatment of run-off, via infiltration through the sandy soils. Roadside kerbing directs run-off away from the road and into a gentle swale along the roadside. Footpaths are not provided and allotment drive-ways are not permitted to impede flows. The swales are designed with a gentle slope to direct large surface flows to low-lying reserve areas where possible. The system has been designed to manage up to a 1: 10 year ARI rainfall event. When the capacity of a swale on one side of the road is exceeded, flows are directed to the swale on the other side of the road via an underground pipe. There is no direct disposal of run-off into the lagoons. The proponent advises that so far this system has adequately managed with large storm events, especially as had occurred in December 1992.

For each individual waterfront allotment, a 25m wide grassed reserve is provided (via a set-back in the encumbrance) from the waters edge to act as a buffer for the infiltration of run-off from gardens and hard surfaces (eg. patios). The land within the buffer is constructed with a slightly backward facing slope (ie. forming a broad swale) to provide some ponding in order to increase infiltration. Run-off from dwelling roof tops is directed to the lagoons, via an underground pipe, as this water is considered to be 'clean' enough for disposal in this manner. In addition, all dwelling building sites must have a perimeter fence for trapping windblown litter and 'long-drop' toilets are not permitted. The encumbrance for each allotment states that gardens and landscaping must be established using only native species to avoid the potential for deciduous trees to overload the stormwater system (and potentially cause water quality problems in waterways) when they drop their leaves during Autumn.

The design of the sewerage system would ensure that any leak within the collection network would not contaminate local groundwater and subsequently the residential lagoons. Being a vacuum system, groundwater would be drawn into the pipe system and this incursion would be identified by the 24 hour monitoring system for appropriate remedial action.

To ensure suitable water quality in the lagoons, it is proposed to install a pump and pipe system to mechanically provide water circulation between each water body, with a turn-over period of 3 days. With the Stage 2 lagoon nearing completion, the first pump has been installed and commissioned. For the next stage lagoon, the proponent has designed the residential peninsula as an island to provide a narrow channel between each water body. A paddle wheel device may be installed to provide a low maintenance option for ensuring adequate water turn-over rates.

4.3.2 Marina Basin and ‘Boating Hub’ Area

To protect water quality in the marina, the proponent has adopted the prime objective of ensuring that no contaminated stormwater enters the basin. To achieve this, it is proposed to construct traps on the slip-way facility for the collection and treatment of run-off. Silt and hydrocarbon residues would be removed before the remaining run-off is directed to the woodlot, via the filtration/chlorination plant. During extreme storm events, the system would treat the first flush flows that contain the majority of pollutants, with subsequent overflow allowed to enter the basin. The proponent is currently investigating the latest technology (eg. cut-off drains, interception pits, grease/oil arrestors etc.) in relation to the type of devices that may be adopted when the facility is constructed. A weather station has been established on-site to determine the quantities of stormwater that may be generated. The management approach adopted would need to be approved by the EP Authority as part of the licence requirement for the operation of a marina facility.

Run-off from the temporary dry standing area is currently ponded on site and allowed to infiltrate through the gravel surface. Run-off from the existing tavern carpark is directed into a rock filled, soakage slit trench to enable treatment via infiltration through the sandy soils. The establishment of trees and shrubs around the trench assists in the interception and uptake of stormwater. This approach would be adopted for other parking areas and the permanent dry standing area in future. Areas used for the cleaning, service, repair and construction of boats would either be enclosed within a shed or will drain to a central collection point for suitable disposal similar to the slip-way facility.

It is proposed to relocate the proposed second fuel dock from the northern side of the basin to the southern side to reduce the effect of wind and wave action on refuelling operations. This should ensure greater protection from prevailing winds. In addition, the proposed second boat effluent pump-out facility is to be located in the same location for ease of operation and management. These arrangements should minimise the potential for accidental spills, especially during windy conditions.

4.4 BIOLOGICAL IMPACTS

4.4.1 Construction Stage

During construction of the residential lagoons, the dewatering method adopted by the proponent has minimised any turbidity problems for wetland communities downstream of the holding basin and ultimately the Goolwa Channel. Sediment is allowed to settle in a detention basin before the discharge water is disposed of into a chain of low-lying depressions. The water eventually flows into the wetland area where the water is subject to ‘natural treatment’ as a final clean-up, prior to discharging into the Goolwa Channel.

During the construction of lagoons, wildlife refuge islands are left undisturbed to retain any native vegetation cover. Stage 1 lagoon has been in operation for a number of years now and the proponent advises that the native vegetation cover on the islands has increased substantially and waterbirds are using them for roosting and some are nesting. In addition, the rock edge treatments (‘rip-rap’) have been colonised by sedge and rush species to provide a ‘natural look’ and fringing habitat.

The original Assessment Report and approval requires the relocation of any populations of *Wilsonia backhousei* during construction due to its vulnerable conservation status rating. The proponent has advised that no such populations have been encountered so far during construction and that, in future, the isolated occurrences of these populations will be avoided. The proponent has identified all occurrences of the species and has sign-posted these areas in order to avoid disturbance. Therefore, the conservation status of this species will not be affected by the development.

4.4.2 Wetland Conservation

A wetland of conservation significance is located in the south-eastern corner of the development site and has been managed by the proponent to protect its ecological, amenity and fishery resource values. The area has been fenced and pedestrian access is restricted. Revegetation work has been undertaken to establish fringing vegetation and provide additional habitat. Direct seeding of a total distance of 15 km of native tree and shrub seed has recently been undertaken in the area along Monument Road. An open space reserve between the wetland and the residential area provides a buffer from human disturbance.

Endemic species of trees and shrubs have been grown from local seed sources and planted out within buffer areas and as landscape plantings throughout the development site. The proponent advises that this year approximately 10,000 she-oak seedlings have been grown on site and planted out. The proponent remains committed to improving the ecological value of the development site, with an emphasis on replacing any non-native or pest species with plants that originally occurred on the island. Adjoining property owners are also being encouraged to adopt a similar approach.

4.4.3 Coorong and Lower Lakes Ramsar Wetlands

The original Assessment Report discussed the conservation significance of the River Murray estuary and the Coorong, which was internationally recognised as a Ramsar site in 1985. The *Convention on Wetlands of International Importance especially as Waterfowl Habitat* was the first international nature conservation treaty and was negotiated in the Iranian town of Ramsar in 1971. The treaty is commonly known as the Ramsar Convention. As part of the Ramsar process, these wetlands and those associated with Lake Albert and Lake Alexandrina have been included on the List of Wetlands of International Importance on the basis of ecological, botanical, zoological, limnological or hydrological criteria. Under the Convention the Australian Government is required to prepare management plans for wetlands that promote the wise use and conservation of their ecological character.

In particular, the potential impact of introducing large numbers of people to Hindmarsh Island was identified in the Assessment Report as a serious issue that needed to be addressed. The provision of a bridge and the consequent expansion of residential development on the island would lead to increased vehicular, pedestrian and boating access to environmentally sensitive areas, especially the Murray Mouth. The report recommended that State and Local Government should investigate environmental management for the region. In addition, the upgrading of the Beacon 19 boat ramp immediately east of the Goolwa Barrage would also result in increased boating activity in the region.

The original EIS and Assessment Report discussed the fresh and saltwater vegetation communities of the region and the habitat they provide for a diverse range of birdlife, including numerous Australian migratory and resident oceanic birds and ducks, waders and other waterbirds. Many of the wader species recorded for the Murray Mouth-Coorong region are subject to international agreements, such as the Japan-Australia and China-Australia Migratory Birds Agreements (JAMBA and CHAMBA), which require the protection of the birds and their environment.

Hindmarsh Island and the Goolwa Channel (the two main areas potentially affected by the development) are within the Coorong and Lower Lakes Ramsar site. The future management of environmental resources in the region is currently being addressed through the preparation and implementation of a *Coorong and Lower Lakes Ramsar Management Plan* that is being co-ordinated by the Department for Environment & Heritage. A series of discussion papers have been prepared and released for public comment to provide guidance on the types of issues that need to be addressed in the Plan. A community reference group has also been formed to discuss such issues. The Plan has now been completed and will be released shortly.

The Coorong lagoon and Youngusband Peninsula are within the Coorong National Park, which is also part of the Ramsar site. An extension of the park, to encompass the Murray Mouth, Goolwa Channel and associated salt water watercourses and the Sir Richard Peninsula, has been proposed by the Department for Environment & Heritage to enable greater protection and management of significant habitats in the area.

The existing Conservation Zone (Hindmarsh Island) covers the majority of the eastern half of Hindmarsh Island, Goolwa Channel, Murray Mouth, Mundoo Island and Sir Richard Peninsula. It should be noted that the majority of land within the Conservation Zone is privately owned, which provides a high level of informal protection from the impacts of tourists.

Alexandrina Council and Planning SA are currently jointly preparing a management plan for Hindmarsh Island to provide a policy framework for the future development of the island. The plan would encompass the management of natural and cultural resources, environmental monitoring and co-ordination of government/Council activities. It would concentrate on the management of the natural environment and tourism, including the protection of habitat, the establishment of buffer zones, control of pest plant and animal species, revegetation, infrastructure requirements (ie. access and parking). In addition, the plan would provide a strategic overview of the nature, location and timing of future development on the island, based on the relevant provisions of the Planning Strategy. Whilst the plan has been considered necessary for a number of years now, it is the construction of the bridge which has prompted the immediate need for the plan. The supply of existing and future residential housing arising from The Marina Hindmarsh Island would be included in the plan.

4.4.4 Impact of Boating and Other Recreational Activities

The Alexandrina Council has prepared a *Recreational Boating Development Plan for the Lower Murray, Murray Lakes and Coorong (1998)*, with the assistance of regional boating organisations. The Plan focuses on potential options for improving boating facilities and activity in the region, whilst recognising the need to protect the ecological values of the area

(especially the Ramsar wetland) and to ensure that all such activities are sustainable. It considers that zoning may be required to reduce conflict between the various recreational uses of the waterways and also with the needs of the environment. The Plan recommends that the Coorong and Lower Lakes Ramsar Management Plan be supported to ensure sustainable equitable use of the natural environment for recreational boating and that a Code of Conduct be developed and promoted to help minimise any adverse impacts from boating activities.

Planning SA, the Office of Recreation & Sport, Tourism SA and the River Murray Catchment Water Management Board are currently formulating a *Sustainable Recreation Management Strategy for the River Murray and Lower Lakes*. The project aims to address concerns over the adverse impact of current recreational practices on the River Murray and potential future impacts. The goal is to standardise management practices and to dedicate conservation zones to improve natural resource management and the experience of visitors.

4.5 FINANCIAL IMPLICATIONS FOR STATE AND LOCAL GOVERNMENT

The main financial involvement of the State Government is associated with the construction of the bridge from Goolwa to Hindmarsh Island. Part of the bridge construction includes the provision of a water supply main to the island by SA Water. The provision of construction costs for the bridge are to be on a shared basis between the State Government, the proponent and through the creation of additional allotments on Hindmarsh Island, as set out in the *Hindmarsh Island Bridge Act 1999*. It is expected that the State Government would recoup a significant proportion of the costs from the decommissioning of the existing ferry service in the long-term. The State Government would also receive substantial revenue from land taxes applied to the development and from further land divisions on the island.

For Local Government, the Alexandrina Council is required to assume ownership and long-term responsibility for roads (including associated stormwater swales), refuse collection and the maintenance of reserves (including lagoons). Council has currently assumed responsibility for Stages 1 and 2 residential waterway reserves. Finances for undertaking these responsibilities are generated through rates on allotment owners, as applies to other residents within the Council area. The Council collected \$ 83,457 from rates applied to the development last financial year. This figure is expected to increase significantly by the time the development is fully completed (based on a conservative value of ~ \$250 M worth of development).

The provision of the bridge could potentially generate additional revenue for both State and Local Government if the island is to be further developed for residential purposes.

5 MANAGEMENT, MAINTENANCE AND MONITORING

The original EIS and Assessment Report considered that the provision of a number of services should be under the control of a Management Authority. At the time, the proponent suggested that a Land Management Agreement be entered into with Council to enable the establishment of a Management Authority to provide for maintenance of water supply, sewage treatment and effluent disposal, roads, reserves, waterways, grounds, fire maintenance and control etc on a uniform basis. It was envisaged that the proponent would manage and maintain these services and facilities using the relevant proportion of rate revenue collected by the Council from the development area. The Council would have ultimate financial control which would ensure that the work is either satisfactorily undertaken by the proponent or the Council or a contractor engaged by the Council.

The existing sewage treatment system has been provided by the proponent, who currently operates and maintains it. It was envisaged that the infrastructure be owned by either Council or the former E&WS Department and operated by the proponent from funds raised from rates levied by either Council or E&WS. The future responsibility for operation and maintenance was to be the subject of discussion between Council and Government and appropriate arrangements to safeguard ongoing operation for the development community were to be ensured. This arrangement, however, did not eventuate (refer to Section 5.1).

The original Assessment Report suggested that the lagoon waterways be owned by the Council but that responsibility for water quality, operation of water exchange pumps, and maintenance of edge treatments be part of overall waterbody management and maintenance undertaken by the Management Authority. The edge treatments of the lagoon allotments were proposed to be owned by each of the waterfront allotments owners in their title to ensure private frontage, but for uniform maintenance and management purposes, the Council was to have responsibility for them. Council was to either have an agreement with each allotment owner for the reimbursement of costs of necessary water body maintenance and management or levy an appropriate rate to cover those costs. These matters are now addressing by a Memorandum of Encumbrance (refer to Section 5.1).

In the case of the marina basin, the existing land is owned by the proponent, who has now been operating the facility since 1985. Therefore, it would appear that the precedent was set for the proponent to retain ownership of the marina basin. Appropriate measures would need to have been taken to ensure that the owner of the marina basin satisfactorily manages and maintains the basin and structures associated with it. The actual form of easement, encumbrance or agreement over the basin was to be determined, as was the form of agreement between the Council and waterfront allotment owners in the lagoon waterways. The agreement for the marina was to ensure appropriate maintenance and management of water quality, edge treatments, land between the water and the apartment titles, and was to be uniform in requirements with those for the lagoon waterways to be owned by Council. This situation no longer applies (refer to Section 5.2).

It was also originally suggested that the entrance channel to the residential lagoon be the responsibility of Council and be maintained under contract by the Management Authority, in addition to maintenance of public boat ramps established by the proponent for the Council on public reserves. Council was also to maintain navigation aids for the bridge.

At the time, these responsibilities were to have been negotiated by the proponent, Council and Government. Since the time of the 1990 Governor's approval and the subsequent delays resulting from legal proceedings over the bridge, the management, maintenance and monitoring responsibilities for the commercial, public and residential components of the development have not been specifically allocated as originally envisaged. The proponent has proceeded to develop Stage 1 and has assumed responsibility for maintaining some of the infrastructure, providing some services (except refuse collection) and for controlling activities within the site by policing the encumbrance.

5.1 RESIDENTIAL LAND DIVISION

In the absence of direct State or Local Government involvement in the management of the development, the proponent has adopted a Memorandum of Encumbrance arrangement as the mechanism for defining management and maintenance responsibilities for the residential component (refer to Appendix F). The encumbrance also establishes a 'code of conduct' for residents to ensure suitable urban design, environmental protection and amenity. The encumbrance is essentially a legal agreement between the proponent and allotment owners and replaces the Management Authority mechanism that was originally proposed. The encumbrance requires allotment owners to submit plans for housing construction (and other structures) to the proponent for approval, prior to submitting them to the Council for approval. This arrangement is to ensure that plans conform with the objectives of the encumbrance. Council has agreed not to process building applications until approval has been gained from the proponent.

The Alexandrina Council applies a minimum rate for all new allotments sold, until a dwelling is constructed at which point the rate is increased, to generate revenue for refuse collection and the maintenance of roads and reserves.

5.1.1 Infrastructure and Services

As part of the construction costs the proponent is responsible for the installation of necessary infrastructure, such as roads, stormwater drainage, water supply, the sewage collection system and effluent treatment plant (including the woodlot). The proponent currently owns, manages and maintains the majority of infrastructure that has been installed for Stages 1 and 2 and generates the necessary revenue for providing water and effluent disposal via an encumbrance on all allotments. The encumbrance enables the proponent to repair or replace the lagoon edge treatment (and recoup the associated costs) if such work is not satisfactorily undertaken by the allotment owner. An easement along the lagoon edge is registered on each title to enable unrestricted access for maintenance purposes. This arrangement appears to be operating satisfactorily and it is suggested that this mechanism should be adopted for future stages to ensure consistency of approach.

The wastewater treatment plant is operated as a separate component and could potentially be operated as a 'stand-alone' business venture. Whoever manages this facility would need to operate it in accordance with the requirements of the Department of Human Services. The proponent has advised that negotiations with SA Water may lead to the provision of water supply to the existing Stages 1 and 2 residential components by the agency in the future.

5.1.2 Public Reserves

To fulfil the open space contribution requirement for the residential land division the proponent has created a number of recreation reserves for each stage. In addition, the lagoons and islands that separate each stage have also been dedicated as reserves for public use. Private moorings and edge treatments are excluded from the waterway reserve as they are included within the allotment boundary.

For Stages 1 and 2, ownership of the two constructed lagoons has been transferred to Council. In addition, the residential component also contains a boat ramp for use by residents that is now on land owned by Council. Council would need to enact by-laws for the control of activities within reserves, especially for the protection of water quality, amenity and public safety within the lagoons. The proponent has advised that, whilst on most occasions water quality in the lagoons is likely to be suitable for primary contact recreation, the safety of swimmers would be jeopardised by boating traffic. Due to health and safety concerns, therefore, Council would need to implement measures to inform residents that swimming is not allowed. The proponent advises that the private boat ramps proposed for the remaining residential stages are no longer to be constructed due to a lack of use and conflict between residents and visitors to the island associated with the existing ramp.

In addition to reserves created by the proponent, the Council owns land along the island foreshore that has been dedicated as either Coastal Reserve or Water Reserve. The public currently has access to these areas, through the development site, for passive recreation (ie. fishing, walking and sightseeing). The developer has advised that these areas are not managed or policed by Council on a day-to-day basis and that problems have arisen, including unauthorised camping, lighting of fires, litter and unsanitary waste disposal (especially human excrement and dead fish). It is suggested that Council should enact suitable by-laws to control public activities and that maintenance and policing of the reserves should be conducted on a regular basis (this function could potentially be undertaken by the proponent, on behalf of Council, as part of overall marina duties). This would require the appointment of a suitably qualified person/s for policing the by-laws under the *Local Government Act 1999*.

5.2 MARINA BASIN

The marina basin is currently owned and managed by the proponent as a commercial facility and is operated in accordance with the requirements of the EP Agency. An EP Authority licence process for the operation of the marina is currently being undertaken. The licence would cover the mooring of boats, boating related activities (especially the maintenance and repair of boats) and use of the fuel dock and boat effluent pump-out facility. The activities of berth occupiers are controlled by leasing arrangements. Revenue from berth leasing is used to maintain the facility, including grassed waterfront areas and the stormwater management system.

The entrance channel, marina basin and associated facilities are under the ownership of the proponent as a commercial proposition. Council should be responsible for refuse collection and disposal as part of the overall responsibility for the whole of the development. This is currently undertaken for a fee. The proponent should be responsible for the safe collection of waste materials from users of the marina and for the disposal of noxious or hazardous

materials, including hydrocarbons and other pollutants from collection devices. The marina boat effluent pump-out facility is connected to the sewer and is operated in accordance with the requirements of the EP Agency.

5.3 COMMUNITY FACILITIES

The only facility to be provided for use by the general community is the boat ramp. The proponent currently manages a temporary private boat ramp that is located within the marina basin near the marina office complex and is available for the public to use at a fee. This ramp is to be replaced by an expanded facility as part of the northern extension of the marina basin. The proponent advises that the public will be able to use the ramp for a fee (as per the current situation). Access would be provided through the 'boating hub' area and secure car/trailer parking would be provided, in addition to other services for refuelling, servicing, retail, general supplies, navigation and weather conditions. The proponent would be responsible for managing the ramp and setting fees as part of overall marina management.

5.4 WETLAND, BUFFER AND FORESHORE AREAS

The proponent owns and maintains a wetland conservation area in the south-eastern corner of the site and buffer land between residential areas and the foreshore reserves. In addition, some land along the foreshore is also owned as public reserve (this is a condition of the Governor's approval that requires the provision of a public reserve immediately adjacent to and along portions of the frontage of the development with the River Murray). The rest of the foreshore land is owned by the Alexandrina Council (refer to Section 5.1.2). The proponent currently manages and maintains the foreshore areas under its control, including recreational use, weed control, amenity and the protection of sites of environmental and Aboriginal Heritage significance.

It is considered that all land along the foreshore (excluding land in the immediate vicinity of the entrance channels and the wetland conservation area) should be owned or be under the care and control of Council and managed for passive public recreation. The land should be dedicated as an Open Space Reserve and a plan of management prepared (as required under the *Local Government Act 1999*), in consultation with the proponent and other stakeholders. The plan should specify objectives and measures for ensuring the protection of the environment, amenity for residents and the enhancement of passive recreational opportunities. Potential conflict between the public, local residents and the needs of the proponent would need to be resolved.

5.5 MONITORING

The original EIS identified the need for monitoring of water bodies, the woodlot, groundwater, sewage effluent, potable water supply, road traffic, boat traffic and social indicators. Monitoring was to be undertaken by the Management Authority (ie. the proponent), however, this arrangement did not eventuate. The proponent has undertaken monitoring (primarily for water supply, effluent disposal and water quality in the marina basin) since the marina was first established. Many of the monitoring requirements are now addressed under existing legislation, such as the *Environment Protection Act 1993* and the *Public and Environmental Health Act 1987*.

5.5.1 Water Bodies

The water quality monitoring program proposed in the original EIS for the marina has been adopted and the proponent has contracted SA Water to collect and have analysed water samples for the marina basin and River Murray inside and outside of the entrance channel. Generally, samples are measured for turbidity, temperature, faecal coliforms, heavy metals (especially lead and aluminium), hydrocarbons, chlorine, detergents and indicators of algae. The monitoring results assist in guiding the operation of the marina.

The Alexandrina Council is responsible for monitoring water quality in the residential lagoons.

It is suggested that all water bodies should be monitored for salinity levels to measure any potential impact on water quality in the River Murray.

5.5.2 Reclaim Water/Effluent Disposal

The operation of the vacuum collection system and waste water treatment plant is constantly monitored by the proponent, via a computer based surveillance system, to ensure any breakdown or incursion of groundwater into the system is quickly identified and rectified. Reclaim water samples of treated water would be collected and analysed by a NATA accredited laboratory (eg. the Australian Water Quality Centre) to ensure standards for treatment set by the Department of Human Services are met.

Monitoring of groundwater under the woodlot area has not yet commenced as the waste water treatment plant has not generated sufficient volumes of water to justify the establishment of plantings. A monitoring program is currently being planned and bores to collect baseline data are currently being installed. The monitoring program should be in accordance with the requirements of the Department of Human Services and the EPA.

5.5.3 Sludge/Biosolids

The sludge lagoons are to operated as per the Department of Human Services approval and in accordance with the *South Australian Biosolids Guidelines (1996)*.

5.5.4 Road and Boating Traffic

The original EIS proposed a traffic monitoring program that was to be undertaken in consultation with the then Department of Road Transport and be funded by Council, with particular attention given to monitoring peak traffic flows across the bridge and major destination points on the island. Attention was also to be given to identifying any significant increases in visitor pressure in the Conservation Zone.

At this stage, due to delays with completing the development, any increase in traffic numbers has been minor in nature. With the completion of the bridge and the expansion of the residential component, it is expected that traffic volumes would increase in the next few

years. The proponent has installed a traffic counter on the entrance road to measure vehicle movements. This data is supplemented by 24 hour video surveillance over the commercial areas and visual observations over time to ensure that the road network is operating effectively.

The monitoring of boat traffic from the marina is the responsibility of the proponent. The State Government and Council are responsible for monitoring boat traffic in the environmentally sensitive Murray Mouth area.

5.5.5 Social Indicators

The proponent currently maintains a record of the likely incoming population as allotments are sold. These figures are provided to Council, and when requested the State Government, for strategic planning purposes.. The proponent also keeps records of boats (type, size, number, type of berth and post code of owner).

5.5.6 Conservation

Council is responsible for monitoring of the usage of the reserve at the Murray Mouth at peak times and for determining the need for upgrading any management strategies already in place.

5.5.7 Construction Monitoring

The original EIS referred to some monitoring during construction, mainly of water quality during the development phase.

Recent construction of the residential component has been undertaken in accordance with the requirements of the EP Agency and monitoring of water quality for earthworks drainage is undertaken. Monitoring has ensured that water quality standards (esp. for turbidity) have been met during construction.

5.6 MANAGEMENT ARRANGEMENTS

The original Management Authority concept is no longer considered relevant as alternative mechanisms have been put in place by the proponent, especially in response to legislation enacted since 1990. Management of residential components is addressed by a Memorandum of Encumbrance (refer to Section 5.1) and licensing conditions for effluent disposal. The marina and associated facilities is managed in accordance with the requirements of the *Environment Protection Act 1993* and other legislation related to pollution control. Under the *Local Government Act 1999*, Council is responsible for the management and maintenance of roads and reserves and for general refuse collection.

Generally, it is considered that the long-term ownership of community assets (roads, swales and reserves) would best be placed with the Council, which collects the necessary finances through rates. Regular maintenance and monitoring could possibly be contracted out to the proponent as part of the day-to-day duties of managing the site. The proponent would be best placed for 24 hour, 7 days a week contact for emergencies and for initiating immediate action

when required (especially in the instance of a pollution spill). In addition, the knowledge and experience gained by the proponent in operating the development over the last 10 years would be beneficial for effective management. If the proponent is given long-term responsibility for management (on behalf of Council), some responsibilities may be further contracted out, similar to the case for water quality monitoring in the marina. The proponent would need to be compensated for undertaking management activities and for any additional expenses.

As part of any arrangement for taking ownership of public infrastructure, the Council may wish to consider some form of 'settling in' or 'hand-over' period during which time the proponent would be responsible for maintaining facilities during the first years of operation to ensure that any defect or faults are rectified prior to the transfer of ownership. This could apply for structures such as water circulation pipes/pumps, boat ramp, stormwater devices, irrigation systems etc. There are existing mechanisms under the *Local Government Act 1999* for this to occur.

6 CONCLUSIONS

The proposed amendments to the original proposal, which was the subject of an Environmental Impact Statement (EIS) and subsequently approved by the Governor in 1990, are considered to comprise minor modifications. The implications of the proposed changes do not significantly affect the outcomes of the original Assessment Report. The key issue arising from the proposed amendments is the modified layout plan, with an increase in the number of residential allotments (ie. from 879 originally approved to 1052) and the consequent increased demand for infrastructure and services, especially effluent disposal. The proposed amendments would also result in a modified staging plan to provide a better mix of residential and boating opportunities in response to current and future market demand.

It should be noted that the main concern identified in the original Assessment Report was the provision of the bridge, which is an issue no longer relevant to this assessment.

During the time since the development was approved, circumstances involved with the delayed provision of the bridge have resulted in the construction of the development not proceeding as envisaged. In particular, management requirements (including maintenance and monitoring) have been undertaken by the proponent, primarily through a Memorandum of Encumbrance for residential components and through the requirements of current legislation. The *Environment Protection Act 1993* also came into operation and the proponent has ensured that activities conducted on site are licenced or meet the requirements of the Act. In addition, the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* has come into operation and the proponent has referred the proposed amendments to Environment Australia to determine whether assessment under the Act is required.

7 RECOMMENDATIONS

7.1 STAGING OF DEVELOPMENT

- Titles for Stage 3 residential allotments should not be issued until 50% of Stage 2 allotments have been sold and transferred.
- Titles for Stage 5 residential allotments should not be issued until 50% of Stage 3 allotments have been sold and transferred, except for streetfront allotments numbered 200 - 227 and 846 - 874 (for which services have already been installed) and residential apartments.

7.2 INFRASTRUCTURE

- All necessary infrastructure services should be constructed in accordance with current relevant design standards and/or existing legislation.
- The design of marina related structures, such as the boat ramp, slip-way, travel-lift jetty and boat effluent pump-out facilities, should be independently certified by a suitably qualified engineer to ensure structural integrity.

7.3 WASTE TREATMENT AND DISPOSAL

- The capacity of the existing effluent treatment and filtration/chlorination plant should be progressively expanded to meet future demand. Maximum capacity threshold levels for the number of persons that the plant can cater for should be established by the proponent, in consultation with the Department of Human Services and the Environment Protection Agency, as a trigger mechanism for the timing of future expansions to ensure adequate capacity is provided.
- The findings of the *Marine Waste Reception Facilities Needs Analysis – Site Needs Analysis for the Marina Hindmarsh Island (2000)* should be incorporated into a waste management plan to cater for the existing marina facilities and the proposed ‘boating hub’ area, or if further recycling is to be undertaken. The different waste streams to be generated should be identified and responsibilities for collection and disposal allocated. The plan should be prepared in consultation with the Environment Protection Agency, Environment Australia and the Alexandrina Council.
- Boating vessels used for overnight accommodation that are not fitted with tanks to hold wastewater generated on board, should not be allowed to discharge effluent into waterways or to use onboard toilets whilst berthed at the marina. The toilet facilities available onsite should be used.

7.4 BOATING FACILITIES

- The final design and construction of the ‘boating hub’ area (including boat ramp and slipway) should be based on the principles outlined in the EPA *Stormwater Pollution Prevention Code of Practice for Local, State and Federal Government* and should include a range of strategies to collect, treat, store and dispose of stormwater from the final form of the development, whilst minimising discharge into the environment. A Soil Erosion and Drainage Management Plan for the construction and operational stages should be prepared to address these matters.

7.5 DEVELOPMENT PLAN ZONING

- The boundary of the Residential Marina (Hindmarsh Island) Zone should be realigned by the State Government or the Alexandrina Council to encompass the whole of the development site, parts of which are currently within the Conservation (Hindmarsh Island) Zone and Rural Waterfront (Hindmarsh Island) Zone. Land east of the site (Sections 14 & 15) should also be considered for rezoning to enable the future expansion of the country living component. The area is currently zoned General Farming (Hindmarsh Island).

7.6 MANAGEMENT, MAINTENANCE AND MONITORING

- The current Memorandum of Encumbrance arrangement between the proponent and landowners, for residential allotments should be adopted for future stages to ensure consistency of approach.
- The Alexandrina Council should enact suitable by-laws to control public activities for Open Space Reserves under its control. Maintenance and policing of the reserves should be conducted on a regular basis, or alternatively, this function could potentially be undertaken by the proponent, on behalf of Council. This would require the appointment of a suitably qualified person/s for policing the by-laws under the *Local Government Act 1999*. A legally binding agreement between the two parties would be required if such an arrangement is negotiated.
- All water bodies should be monitored for salinity levels, particularly within the vicinity of the entrance channels, to measure water quality effects on the River Murray.
- Public access through the development site to Council owned reserves along the island foreshore should be maintained.
- The proponent should continue the education program for marina users to encourage appropriate codes of behaviour with regard to environmental protection for both the marina facility and the wider region.

8 REFERENCES

- ANZECC (1997). *Best Practice Guidelines for Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand*. Prepared by the Australian and New Zealand Environment and Conservation Council.
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South Coast Strategic Planning Committee (1997). *South Coast Urban Growth Strategy (Draft)*.

TiBaR Services (1998). *Recreational Boating Development Plan for the Lower Murray, Murray Lakes and Coorong*. Prepared for the Alexandrina Council, Goolwa Regatta Yacht Club, Clayton Bay Boat Club, Trailer/Sailer Association of SA, Goolwa Aquatic Club, Goolwa Slipway and Dominant Marina.

9 GLOSSARY

AHD	Australian height datum (approximate mean sea level)
ANZECC	Australian and New Zealand Environment and Conservation Council
ARI	average recurrence interval
AQIS	Australian Quarantine Inspection Service
DEH	Department for Environment and Heritage
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
EP Authority	Environment Protection Authority
EP Agency	Environment Protection Agency (DEH)
MARPOL	The Convention on Marine Pollution
SEDMP	Soil Erosion and Drainage Management Plan
SAHC	South Australian Health Commission

APPENDIX A

Background of the Approval Processes Undertaken to Date

Pre-Environmental Impact Statement (EIS) Approvals

The initial approval for the marina and associated facilities was granted in 1982, and subsequently amended in 1984 to vary some of the initial conditions, under the *Planning Act 1982*. Since this date, various building approvals have been obtained, although the layout and design of structures has varied from the original plans.

Approvals were granted between 1981 and 1984 for the following:

- 561 berth marina and serviced permapine jetties (of which 320 berths have been constructed)
- 200 berth hard stand/car park area (constructed)
- marine sales and service workshop (constructed)
- administration building, members lounge and facilities (a marina office and general store has been constructed)
- amenities block and lockers (not constructed)
- 40 room motel, restaurant and conference centre (not constructed)
- effluent dam (constructed)
- boat ramp (constructed)
- 11 cabin style accommodation units (not constructed and no longer proposed)
- par 3 golf course (not constructed)

Since 1984, separate approvals were obtained for a tavern (constructed) and 24 waterfront units (11 constructed), together with an access road which would encircle the then proposed marina extension. As part of the conditions on the 24 units, a sewage treatment facility has been constructed, with effluent criteria to the satisfaction of the then Central Board of Health.

In 1988 a formal planning application was lodged to significantly expand the marina basin and associated facilities, as well as creating a separate residential lagoon estate. At the time, it was considered by the State Government that approval for the development as lodged, should not occur without construction of a bridge.

Original Environmental Impact Statement (EIS) Approvals

In October 1989 the then Minister of Environment and Planning formally advised Binalong P/L that following Cabinet consideration, an Environmental Impact Statement (EIS) should be prepared for the overall development, which would include the bridge. The Minister further advised that the application would be subject to a Section 50 declaration under the *Planning Act 1982* to enable the Governor to exercise control over the development (including the bridge and its approaches).

An EIS was released on 6 November 1989 and placed on public exhibition until 18 December. A public meeting was held on 4 December. The main elements of the proposal were to construct a bridge to Hindmarsh island, a 1,150 berth marina (about half of which had already been approved and one quarter constructed at the time), 500 drystand berths (inc. 200 already approved), 859 residential allotments (inc. 324 with waterfrontage) and associated waterways and lagoons, a tourist centre, sewage treatment plant and a water filtration plant.

A total of 73 public submissions were received, with the main concerns being the potential impact of traffic in the town of Goolwa, aesthetic impact, financing and the size of the residential component and potential for the bridge to change the rural character of the island. A response to the submissions in the form of a Supplement document was released on 5 February 1990.

The State Government's Assessment Report on the proposal was released on 16 March 1990. The main concerns related to the alignment of the bridge, financial arrangements, visual impact, impact of improved access to the island, the long-term viability of private water and sewerage schemes and the way in which the whole project was to be constructed in stages. The project was subsequently approved on 12 April 1990 by the Governor, under Section 51 of the *Planning Act 1982*, subject to conditions for the marina development relating to consultation with Aboriginal groups (in the event that skeletal remains were uncovered during construction), staging of the development (particularly before bridge construction) and reticulated water supply. Refer to Appendix B for the layout plan that formed part of the original Governor's approval.

Approval was granted for the following development components:

- construction of a bridge from the mainland to Hindmarsh Island
- 590 wet berths in addition to the approved 560 wet berths (320 constructed) giving a total capacity of approximately 1,150 berths
- 300 dry standing berths in addition to the approved 200 berth hardstand area giving a total capacity of 500 drystand berths
- construction of 879 residential allotments comprising the following:
 - 147 apartments in addition to the 24 approved (7 constructed) giving a total of 171 apartments
 - 335 land based residential allotments
 - 50 country estate residential allotments
 - 323 waterfront residential allotments
- public boat launching ramps
- open space, including lagoons, public and coastal reserves, conservation land, and woodlot areas
- a tourist development area which would include 40 time share units, a 100 bed motel (40 room motel approved), club facilities, a heliport and boat charter
- a sewage treatment plant and woodlot disposal area (the first two stages of the treatment plant has been built)
- car parking and access roads

- a water filtration plant to provide a potable water supply (a small unit is already operational on site)
- a site nursery for propagation of endemic species and other plants for woodlotting and landscaping.

The proponent refers to the Governor's decision as the "Section 51 approval".

Stage 1 was completed and opened in October 1991, however, Stage 2 was conditional on the bridge construction.

Post 1990 Governor's Approval Amendments

During the early 1990's the developer, State Government and Council were involved in negotiations regarding the construction and financing of the bridge. In 1993 the government let the tender for building contractors to construct the bridge. Protestors picketed the site and by November all work had stopped. With a change of Government, an inquiry into the financial and legal implications of the bridge contracts was conducted, which found that the government was contractually bound to build the bridge. In May 1994 bridge works commenced and the Federal Minister for Aboriginal and Torres Strait Islander Affairs subsequently halted construction due to alleged Aboriginal heritage concerns. This resulted in the State Government conducting a Royal Commission on the issue that concluded the concerns were not valid. In May 1997 the Commonwealth Government passed legislation that removed the bridge corridor and a small parcel of land in the development site from the provisions of the Commonwealth *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* to allow the construction of the bridge.

Due to the significant delays incurred by legal actions related to the bridge (including the marina development being temporarily placed in the hands of receivers), the proponent had not had the opportunity to progress construction of the project as envisaged by the approved staging plan. Thus, the following components of Stage 1 have not eventuated:

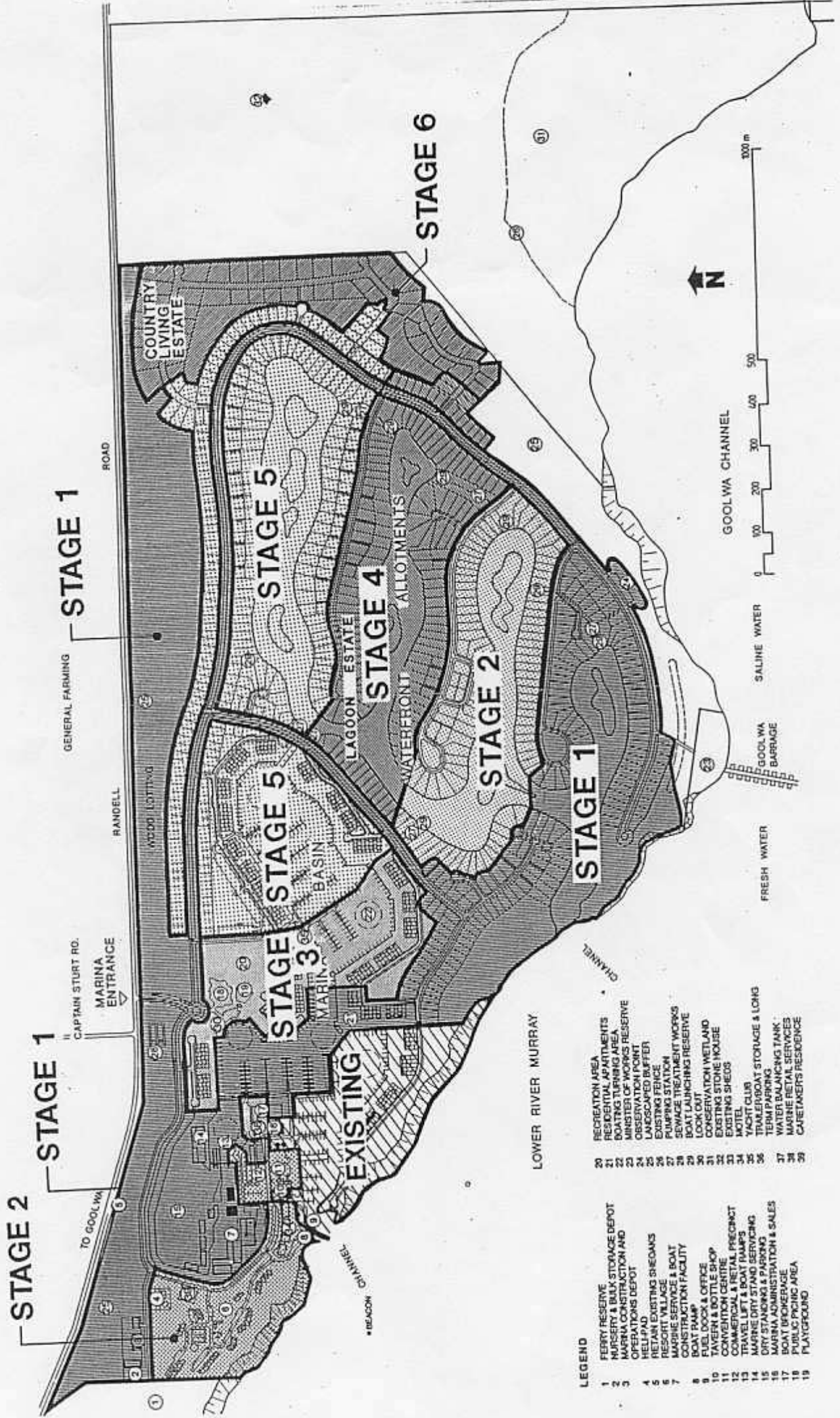
- Northern extension of the marina
- Four residential apartment allotments on the southern edge of the marina (12 have already been created and unsold).
- Travel lift and boat ramp facility (although a temporary boat ramp is provided next to the marina office complex).
- Boat service and construction facility (although a temporary mechanical repair workshop operates out of an existing shed and shipwright repairs are conducted from the marina office complex).
- Boat retailing/service area (although a chandlery and retail area is provided in the marina office complex).
- Drystanding and parking area (although a temporary facility has been established on the site of the future commercial and retail precinct to meet demand for this facility).
- Completion of the woodlot (although the area has been prepared, with fencing, deep ripping, the removal of limestone rock and the installation of a water distribution network that forms part of the irrigation system having been undertaken).
- Nursery and bulk storage depot (although a temporary facility is provided).

This situation led to the original Governor's approval being amended a number of times to modify the conditions of approval related to the release of residential component stages prior to the construction (or substantial commencement of construction) of the bridge. In addition to the delays, changed market demand required the redesign of the Stage 2 residential component in 1993 to enable smaller sized 'villa' type allotments to be provided (with a subsequent increase in the number of Stage 2 allotments from 99 to 200 and the total number of allotments from 879 to 980).

The current Governor's approval is dated 1 July 1993 (refer to Appendix C).

APPENDIX B

Copy of Originally Approved Layout Plan



STAGE 2

STAGE 1

STAGE 1

STAGE 5

STAGE 4

STAGE 2

STAGE 1

STAGE 5

STAGE 3

EXISTING

STAGE 6

COUNTRY LIVING ESTATE

GENERAL FARMING

ROAD

CAPTAIN STURT RD.

MARINA ENTRANCE

RANDELL

WOOD LOTTING

LAGOON ESTATE

WATERFRONT ALLOTMENTS

BASIN

TO GOOLWA

CHANNEL

CHANNEL

LOWER RIVER MURRAY

GOOLWA CHANNEL

SALINE WATER

FRESH WATER

GOOLWA BARRAGE

0 100 200 300 400 500 1000 m

N

- LEGEND**
- 1 FERRY RESERVE
 - 2 NURSERY & BULK STORAGE DEPOT
 - 3 MARINA CONSTRUCTION AND OPERATIONS DEPOT
 - 4 HELIPAD
 - 5 RETAIN EXISTING SUEDEAMS
 - 6 RESORT VILLAGE & BOAT MARINE SERVICE & BOAT CONSTRUCTION FACILITY
 - 7 BOAT LIFT & OFFICE
 - 8 TUGBOAT & BOTTLE SHOP
 - 9 CONVENTION CENTRE
 - 10 TRAVELIFT & BOAT RAMPS
 - 11 MARINE DRY STAND SERVICING
 - 12 DRY STANDING & PARKING
 - 13 MARINA ADMINISTRATION & SALES
 - 14 BOAT BROKERAGE
 - 15 PUBLIC PICNIC AREA
 - 16 PLAYGROUND
 - 17
 - 18
 - 19
 - 20 RECREATION AREA
 - 21 RESIDENTIAL APARTMENTS
 - 22 BOATING TURNING AREA
 - 23 MINISTER OF WORKS RESERVE
 - 24 OBSERVATION POINT
 - 25 LANDSCAPED BUFFER
 - 26 EXISTING FENCE
 - 27 PUMPING STATION
 - 28 SEWAGE TREATMENT WORKS
 - 29 BOAT LAUNCHING RESERVE
 - 30 LOOK OUT
 - 31 CONSERVATION WETLAND
 - 32 EXISTING STONE HOUSE
 - 33 EXISTING SHEDS
 - 34 MOTEL
 - 35 YACHT CLUB
 - 36 TRAILERBOAT STORAGE & LONG TERM PARKING
 - 37 WATER BALANCING TANK
 - 38 MARINE RETAIL SERVICES
 - 39 CUSTOMERS RESIDENCE

STAGING PLAN
MARCH 1990

APPENDIX C

Copy of Current Approval Conditions and Layout Plan

RE: MARINA GOOLWA - PLANNING CONSENT

APPROVED BY HIS EXCELLENCY THE
LIEUTENANT-GOVERNOR IN EXECUTIVE COUNCIL
RETURNED TO: Secretary, Minister of Housing, Urban
Development and Local Government Relations


CLERK, EXECUTIVE COUNCIL

1st July 1993

CONDITIONS OF DEVELOPMENT APPROVAL

- 4.1 consent be granted to the developer for Stages 2-6 of The Marina Goolwa development subject to the Developer not making application under the Real Property Act to deposit a plan of division for stage 2 until February 1994 or for any subsequent stage until:
- (a) a bridge providing access between Goolwa and Hindmarsh Island has been constructed to the point of substantial commencement, and
 - (b) 50% of the stage 1 allotments of the Marina Goolwa development are sold and transferred to the purchasers of those allotments; and
 - (c) the development being carried out in accordance with the Stage 2 Plan (Proposed Lagoon Development Stage 2) provided by the Developer for Hindmarsh Island and with the staging plans for stages 3-6 in the section 51 planning application of March 1990 on page 16, with the modifications as required to comply with the following conditions.
- 4.2 The consent be subject to the following conditions:
- (a) That the developer be required to pay that portion of the cost for water supply approach and reticulation mains attributable to the proposed development as determined by the E&WS Department. All water supply connections within the development must be to the requirements of the E&WS Department.
 - (b) The developer must establish suitable monitoring programmes for the project in accordance with Chapter 6 of the Assessment Report.
 - (c) The developer must maintain the edge treatments and the channel and basin depths specified on the plans.
 - (d) The developer must maintain the water quality in the marina basin at not less than the quality of the water of the River Murray adjacent to the development site.

- (e) Any population of *Wilsonia backhousei* on the development site must be transplanted, at the developers cost to another location or locations on Hindmarsh Island specified by the Chief Executive Officer of the Department of Environment and Land Management.
- (f) The developer must provide a public reserve immediately adjacent to and along the entire frontage of the development to the River Murray. The reserve must be a minimum width of 20 metres and an average width of 30 metres.
- (g) Mounding and woodlot planting along Randell Road must be completed before any application, under the Real Property Act 1886, for the deposit of the plan of division for stage 2 of the development.
- (h) Public access must be provided from the main reserve to the entrance road through to the marina basin. This reserve is shown as allotment 909 of the plan numbered 88A7091/sheet 20 and 21 provided by the developer.
- (i) The developer must not proceed to construct stage 3 of the Marina Goolwa or apply, under the Real Property Act 1886, for the deposit of the plan of division in respect of that stage until 50% of the allotments in stage 2 are sold and transferred to the purchasers of those allotments.
- (j) The developer must not proceed to construct stage 4 of the Marina Goolwa or apply, under the Real Property Act 1886, for the deposit of the plan of division in respect of that stage until 50% of the allotments in stage 3 are sold and transferred to the purchasers of those allotments.
- (k) The developer must not proceed to construct stage 5 of the Marina Goolwa or apply, under the Real Property Act 1886, for the deposit of the plan of division in respect of that stage until 50% of the allotments in stage 4 are sold and transferred to the purchasers of those allotments.
- (l) The developer must not proceed to construct stage 6 of the Marina Goolwa or apply, under the Real Property Act 1886, for the deposit of the plan of division in respect of that stage until 50% of the allotments in stage 5 are sold and transferred to the purchasers of those allotments.

4.3 Pursuant to subsection 8 of section 49 of the Planning Act, 1982, the conditions of this approval may be varied or revoked or new conditions attached to the approval at intervals of 6 months. The first interval commencing at the date of this consent.

4.4 In this consent the reference to "the developer" is to be construed as a reference to Binalong Pty Ltd or to any other person for the time being having the benefit of the consent.



Greg Crafter

Greg Crafter
 MINISTER OF HOUSING, URBAN DEVELOPMENT AND
 LOCAL GOVERNMENT RELATIONS

15/6/93

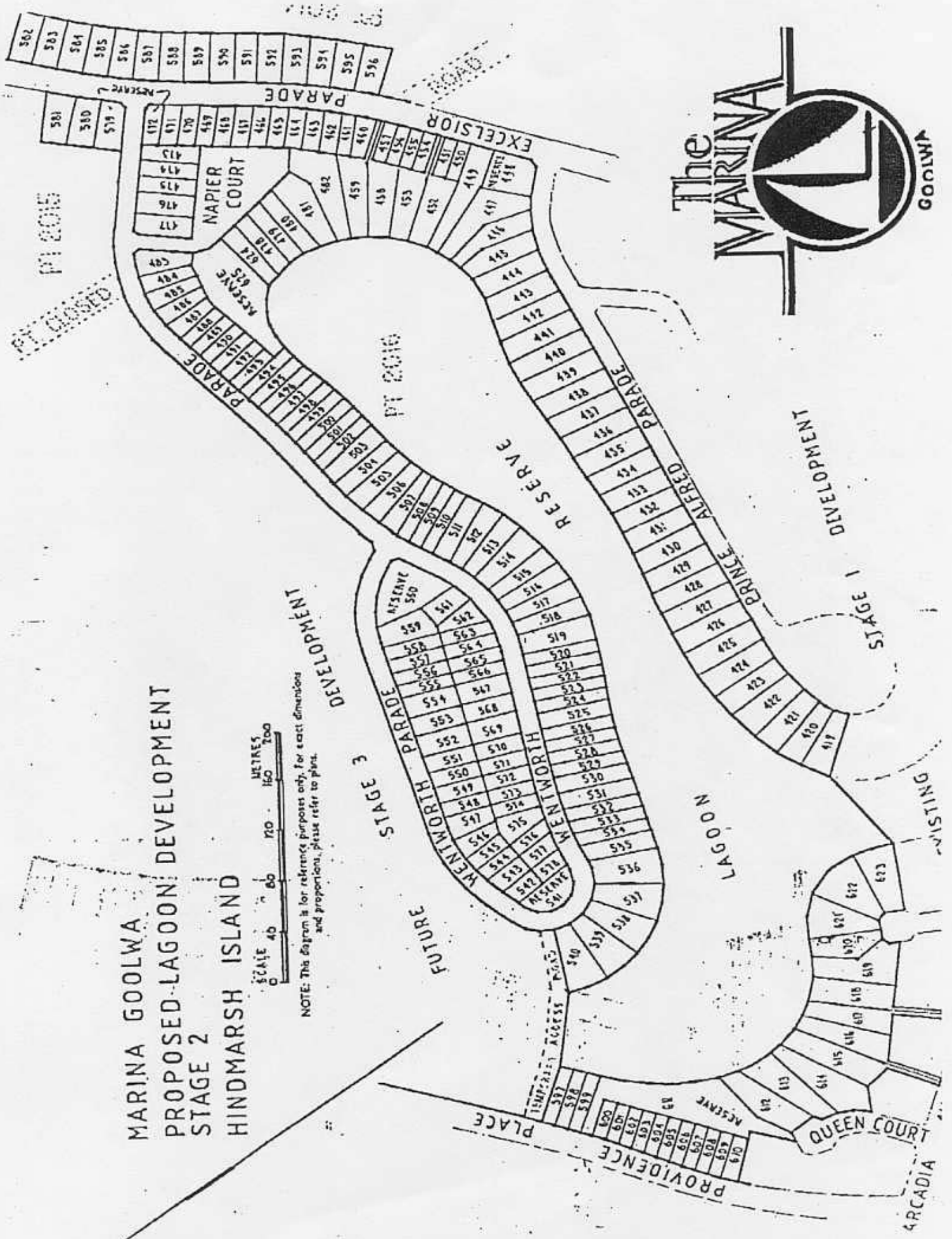


28 JUN 1993

MARINA GOOLWA
 PROPOSED LAGOON DEVELOPMENT
 STAGE 2
 HINDMARSH ISLAND



NOTE: This diagram is for reference purposes only, for exact dimensions and proportions, please refer to plans.



PT 2015
 PT 2016

STAGE 1 DEVELOPMENT

FUTURE DEVELOPMENT

PROVIDENCE PLACE

ARCADIA

WINGDING

LAGOON

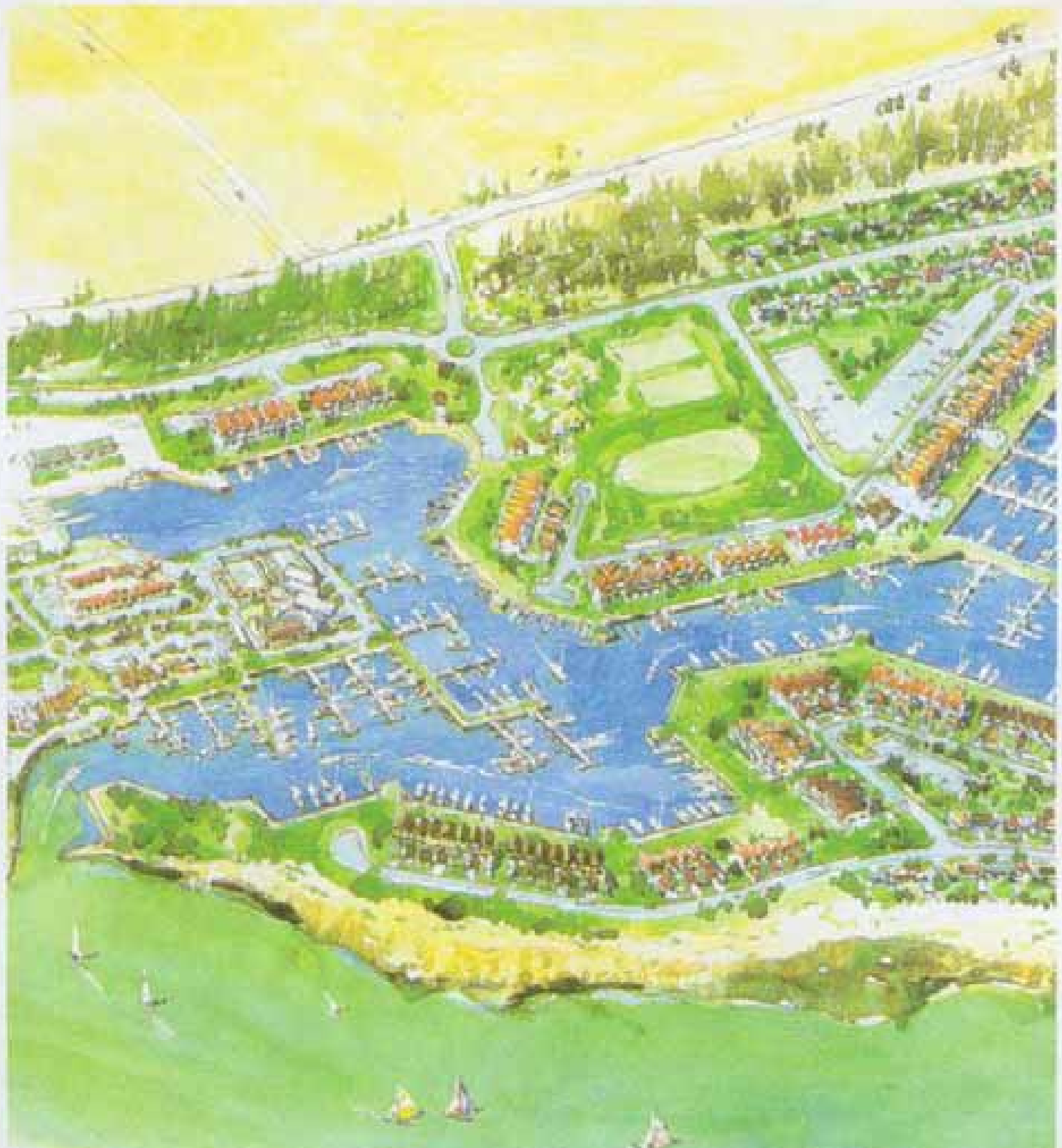
TEMPORARY ACCESS ROAD

STAGE 3 DEVELOPMENT

PARADE
 581 580 579 578 577 576 575 574 573 572 571 570 569 568 567 566 565 564 563 562 561 560 559 558 557 556 555 554 553 552 551 550 549 548 547 546 545 544 543 542 541 540 539 538 537 536 535 534 533 532 531 530 529 528 527 526 525 524 523 522 521 520 519 518 517 516 515 514 513 512 511 510 509 508 507 506 505 504 503 502 501 500 499 498 497 496 495 494 493 492 491 490 489 488 487 486 485 484 483 482 481 480 479 478 477 476 475 474 473 472 471 470 469 468 467 466 465 464 463 462 461 460 459 458 457 456 455 454 453 452 451 450 449 448 447 446 445 444 443 442 441 440 439 438 437 436 435 434 433 432 431 430 429 428 427 426 425 424 423 422 421 420 419 418 417 416 415 414 413 412 411 410 409 408 407 406 405 404 403 402 401 400 399 398 397 396 395 394 393 392 391 390 389 388 387 386 385 384 383 382 381 380 379 378 377 376 375 374 373 372 371 370 369 368 367 366 365 364 363 362 361 360 359 358 357 356 355 354 353 352 351 350 349 348 347 346 345 344 343 342 341 340 339 338 337 336 335 334 333 332 331 330 329 328 327 326 325 324 323 322 321 320 319 318 317 316 315 314 313 312 311 310 309 308 307 306 305 304 303 302 301 300 299 298 297 296 295 294 293 292 291 290 289 288 287 286 285 284 283 282 281 280 279 278 277 276 275 274 273 272 271 270 269 268 267 266 265 264 263 262 261 260 259 258 257 256 255 254 253 252 251 250 249 248 247 246 245 244 243 242 241 240 239 238 237 236 235 234 233 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 200 199 198 197 196 195 194 193 192 191 190 189 188 187 186 185 184 183 182 181 180 179 178 177 176 175 174 173 172 171 170 169 168 167 166 165 164 163 162 161 160 159 158 157 156 155 154 153 152 151 150 149 148 147 146 145 144 143 142 141 140 139 138 137 136 135 134 133 132 131 130 129 128 127 126 125 124 123 122 121 120 119 118 117 116 115 114 113 112 111 110 109 108 107 106 105 104 103 102 101 100 99 98 97 96 95 94 93 92 91 90 89 88 87 86 85 84 83 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

APPENDIX D

Copy of Review/Amendment to the original EIS



**Review and Amendment of the Environmental Impact Statement
on the
Hindmarsh Island Bridge
Marina Extensions &
Waterfront Development**



**Review and Amendment
of the Environmental Impact Statement
on the
Hindmarsh Island Bridge
Marina Extensions and Waterfront Development**

**Prepared for
The Marina Hindmarsh Island**





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Appendices

Appendix A	Proposed Amendments
Appendix B	Proposed Development

1. Introduction

1.1 Introduction

There is a need to Review and Amend the original November 1989 Hindmarsh Island Bridge Marina Extensions and Waterfront Development Environmental Impact Statement (EIS) to update that document taking into account more up to date information. The original EIS was based on a proposal which envisaged the staged expansion of the marina basin, creation of lagoon based residential development, marina related infrastructure and the construction of a bridge connecting Hindmarsh Island with Goolwa.

Since the recognition of the original EIS and approval to proceed with the development, substantial work has been undertaken as discussed below. This effectively has changed conditions and accordingly the EIS needs to be updated. The works undertaken are consistent with the approvals.

1.2 Background

The Marina Hindmarsh Island, located at the south-western end of Hindmarsh Island, is an established facility which has been progressively developed over the past 15 years into a fully-serviced marina with adjacent waterfront apartments and associated residential development. Initial development comprised of a marina basin and associated marina facilities, and some residential apartments overlooking the Marina.

Further expansion to the Marina was developed in 1989 including land division proposals for waterfront residential development. The proposed development was subsequently determined to be of major social, economic and environmental importance, triggering an Environmental Impact Statement (EIS) pursuant to the Planning Act, 1982. The guidelines required that consideration be given to a bridge connecting Hindmarsh Island to the mainland (Goolwa) given the size of the proposed development (expansion of Marina berths, and substantial waterfront housing, which was entirely reliant upon ferry access to Hindmarsh Island).

Detailed investigations were undertaken resulting in the production of an EIS, public notification, response to agency and community issues that were raised in the form of a Supplement, the preparation of an Assessment Report by the Department and subsequent official recognition of the EIS and supporting documentation by the Minister.

Following that process the development was approved requiring a staged release of the development with the second and subsequent stages conditional upon the construction of the Hindmarsh Island Bridge. Stage One of the development (as outlined in the original proposal and EIS) has been developed.

In 1993 further modifications were approved with respect to the waterfront housing allotment configuration for Stage Two. This rearrangement of allotments included the introduction of villa style allotments in response to changing market demand for smaller allotment frontages.

1.3 Today

Today, the bridge is under construction and the planning and construction of remaining stages of the Hindmarsh Island Marina has commenced.

1.4 This Report

This report comprises two key parts.

- ◆ Section 2: Review of the EIS
- ◆ Section 3: Amendment of the EIS

Section 2 comprises a review of the original 1989 EIS by the proponent given that the EIS is over five years old.

Section 3 comprises a compilation of the proposed amendments to the EIS. Plans relating to the proposed amendments are enclosed within Appendix A and B.

2. Review of the EIS

2.1 Introduction

Since approval of the original EIS, drafted in November 1989, a number of changes have occurred which have altered conditions relating to the marina site, the local area and the region. The EIS has therefore been reviewed and changes in fact acknowledged and identified in this report. This section is to be read as a review of the EIS.

Changes that have occurred over the past ten years can be grouped under the following headings:

- ◆ Regional Context
- ◆ Planning Policy
- ◆ Bridge Development
- ◆ Marina and Lagoons Development
- ◆ Staging of Development
- ◆ Infrastructure Development

2.2 Regional Context

2.2.1 Population growth

The South Coast area of the Fleurieu Peninsula (the former Council areas of Victor Harbor and Port Elliot and Goolwa) has continued to experience rapid growth over the past 15 years and represents one of the fastest growing areas in South Australia.

Significant population growth is projected for the South Coast area with projections estimated by the Department of Housing and Urban Development suggesting an increase from 14,648 persons in 1991 to 29,064 persons in 2011. Growth is projected to be across all age groups, notably in the older age groups of 40 years and over.

According to the Australian Bureau of Statistics, the population of Goolwa in 1986 was 2,359 persons and by 1996 the population had grown to 3,723, an increase of more than 60%. Population projections for Goolwa are estimated to result in a total population of 5,372 persons by 2011.

2.2.2 Demand for land and housing

Based on the continued growth in population for the South Coast area, a similar growth in housing is predicted. In 1997, the South Coast Urban Growth Strategy estimated that an additional 5,125 to 5,423 total dwellings will be required by 2001 and between 8,627 and 10,080 total dwellings required by 2011. There is likely to be a shortfall of urban land as a consequence of these growth trends.

Particular housing demand has been experienced in recent years through the take up of allotments with waterfront, sea views and special character, such as Encounter Lakes, The Bluff and McCracken Country Club. Significant growth has occurred in Victor Harbor however there are limited options left in the area.

The growth of the Hindmarsh Island Marina development has been limited by the condition to build the bridge connection to Goolwa before commencing Stages 2 to 5. There has been considerable demand for waterfront housing allotments associated with Stage 2, as evidenced by the 95% sale of allotments within Stage One, and the presale of more than 25% of allotments within Stage Two without any marketing.

2.2.3 Tourism

Tourism remains an important industry to the South Coast area and Fleurieu Peninsula generally. Visitors to the Fleurieu Region were estimated to be approximately 500,000 in 1996. Of these, approximately 92% were from within South Australia. Tourism product which is of particular interest to tourists to the region include eco-based / nature tourism and recreation / leisure tourism.

The natural land and waterscapes within the region, including The Hindmarsh Marina development, provide the raw product for tourism in the region. The marina development itself is able to provide associated residential, entertainment, retail and tourist resort facilities, and form a base for experiencing eco-tourism on Hindmarsh Island, Murray Mouth and Coorong areas.

2.3 Planning Policy

At the time of preparation of the EIS the zoning of the Hindmarsh Marina Development site was Rural Waterfront Zone, General Farming Zone and Conservation Zone. The zoning has since been changed to reflect the approved marina and waterfront development. The Hindmarsh Marina Development is now principally sites within the Residential Marina (Hindmarsh Island) Zone.

The objectives of the Residential Marina (Hindmarsh Island) Zone are to:

- ◆ establish compact residential marina development, including boat maintenance facilities, with retail and commercial facilities;
- ◆ maintain the open rural character of the area when viewed from the mainland, the River Murray and Randell Road;
- ◆ protect the water quality of the River Murray, marina basin and residential lagoon; and
- ◆ protect important wetland, coastal foreshore and bird habitat areas.

The existing and future stages of the Hindmarsh Island Marina development are consistent with the intent of the Residential Marina (Hindmarsh Island) Zone.

2.4 Bridge Development

The bridge has been approved and is currently under construction therefore issues in relation to environmental management, visual, traffic and financing found throughout the EIS relating to the bridge are now not relevant in reality and need no updating. The operation of the bridge is expected in December 2000.

2.5 Marina and Lagoons Development

Stage One of the lagoon has been constructed and consists of 180 residential allotments. All but 8 allotments within Stage One have been sold and 4 of those 8 allotments are unsaleable until Stage Two is completed. Approximately 42 dwellings have been built within Stage One and a further 10 are currently designing for approval.

Stage Two is currently under construction and will comprise a total of 200 residential allotments. A total of 57 allotments (over 25%) have been sold without any marketing.

Monitoring issues and construction effects, associated with development undertaken to date, have been successfully managed by construction in the dry and then connection through to the water body.

One of the successful elements of the development of the lagoons has been the construction of small islands within the water bodies. The islands serve two purposes, one to reduce noise that travels across the lagoon between residential properties, and the other relating to the haven the islands provide for bird life. Extensive bird life is now occupying the islands established in relation to Stage One. Substantial landscaping and tree planting has also occurred as part of Stage One development.

2.6 Staging of Development

The original EIS included five stages of development within the boundary of the marina and waterfront development envelope. Stage One was developed in the early 1990's and Stage Two is under construction at the present time. Originally staging was to be based on the slow release of land and allotments over a number of years and contingent of the construction of the bridge however the marina development was stalled through legal processes.

Since the approval of the EIS significant interest and demand has been demonstrated and it is proposed that future stages be released according to market demand rather than relate to any particular time period. The construction of the bridge by December 2000 further justifies that the staging of development no longer be programmed on a time basis.

2.7 Infrastructure Development

2.7.1 Waste management

The wastewater treatment plant for the Hindmarsh Island Marina development has been built with a vacuum system and has been further expanded. The system has yet to generate sufficient waste water for irrigation and therefore the woodlot has not been planted, however that residential growth is now occurring and it is expected that with occupation of the dwellings now being constructed, there will be some generation of waste water to enable the woodlot to be commenced.

2.7.2 Water quality

The maintenance of water quality is an important feature of the Hindmarsh Island Marina development. Construction and operation of existing development has maintained water quality and methods outlined in the original EIS will continue to be applied to future construction stages of the development.

2.7.3 Stormwater management

Stormwater associated with Stage One is being managed through the development of a system of grassed swales which are operating effectively. Similar stormwater management is proposed for future development stages.

2.8 Summary

In summary, whilst the EIS is now 11 years old, the fundamentals of the proposals remain valid. The changes relating to the facts, e.g. bridge construction, lagoon and release, and the construction of associated infrastructure that has occurred to the year 2000, simply reflects current conditions and does not trigger the need for significant amendments to the EIS documentation. The following amendments are simply design / detail refinements to the original concepts.

3. Amendment of the EIS

3.1 Introduction

Demand for waterfront housing continues to increase however market demand has changed over time. The operators of the Marina Hindmarsh Island have noted continuing change to business practices in the marine and leisure related industries and have refined business practices as a result of this marketing and operational experience. With the strong demand and desire to proceed with the further stages of development it is essential that further amendment to the original development approval is undertaken.

3.2 Nature of the Amendment

The proposed changes will enhance the operation and function of the development however they are small in scale, relative to the entire development, and are fundamentally consistent with the original approvals. Amendments include:

- ◆ Minor allotment boundary adjustments;
- ◆ Creation of additional allotments as a result of reducing the frontages/widths of allotments adjacent waterfront land;
- ◆ Deletion of hammerhead allotments;
- ◆ Minor changes to staging of development;
- ◆ Increase in number of allotments with water frontage including minor variations to the shape of lagoons to maximise water frontage;
- ◆ Minor changes to infrastructure including road layout resulting from the above changes; and
- ◆ Some adjustment to specific land use allocation, for example, tennis court location and adjustment of marina facilities operations.

This section provides an outline of the amendments proposed and assesses these changes and affects compared with the original EIS. Impacts resulting from potential change are noted and assessed. Plans within Appendix A further indicate the proposed amendments and detail relating to proposed development is contained within Appendix B.

In general terms the essential footprint of the development and land use configuration is largely unaltered although some change does occur to the layout of residential allotments resulting from the demand for smaller allotments with water frontage.

3.3 Land Division

3.3.1 Par 3 Golf Course Boundary Adjustment

Proposed Variation

Alter the boundary between proposed Allotments 902 and 903 to allow the inclusion of a Par 3 golf course within Allotment 902 adjoining the resort.

Potential Effects

The construction of a Par 3 golf course was previously approved (refer Assessment Report for the proposed Hindmarsh Island Bridge Marina extensions and waterfront development, Section 1.2 Existing Development). This proposal involves the rearrangement of the Par 3 golf course however there will be no impacts as a result of this proposed change

3.3.2 Caretaker Accommodation

Proposed Variation

Increase the size of Allotment 976 marginally to allow the construction of two dwellings instead of the one originally approved for caretaker accommodation. This will allow staff associated with the resort to be sited away from the resort building in two dwellings.

Potential Effects

The increase in allotment size, and the subsequent construction of 2 dwellings rather than one will have no impact on the surrounding areas. Landscaping is still planned. The construction of two dwellings rather than one will not impact on either traffic flows, or visual amenity and will improve overall management operations

3.3.3 Redesign of Residential Allotments

Proposed Variation

Revise land division plan for Stages 4 and 5 (Lagoon Estate portion). The proposed land division includes the rearrangement of existing allotments from a total of 328 residential allotments (173 wet and 155 dry) into a total of 445 residential allotments (319 wet and 126 dry). This represents an increase of 117 allotments.

The varied land division will follow the natural contours of the land and the shape of the lagoons slightly adjusted to enable a higher percentage of allotments to have water frontage. Land has been allocated as open space reserve and the road network system has been varied providing an additional loop road off Excelsior Parade.

Potential Effects

The new land division creates a 26% increase in residential allotments within the lagoon estate, there is potential for an approximate 26% increase in traffic once fully developed. The majority of the traffic will use the main entrance to the Marina.

The 26% increase in traffic can be adequately accommodated by the proposed road network within and adjoining the marina. The proposed land division meets changing demand for marina frontage allotments and allotments with a smaller site area. The minimum width of any allotment is 12 metres and all marina frontage allotments propose a 5 metre wide easement for access and maintenance purposes along the water frontage. A building line is also designated on the plan of land division.

The proposed land division results in minor changes to the overall footprint of the marina development. The design and siting of allotments and the slightly varied road and lagoon layout improve the marketability of the residential allotments and is in keeping with the character and amenity of the marina development.

The increase in the number of residential allotments will be beneficial to the development of the woodlot as it will result in increased production of effluent water thereby improving the operation of the woodlot.

3.3.4 Road Network Amendments

Proposed Variation

Changes to road networks within the resort, including:

- ◆ amendment of the road network and parking at the front of what was the motel (and will now be timeshare accommodation);
- ◆ amendment of the road network to remove the connection between the access road to the recreation facilities and the main road;
- ◆ creation of a roundabout at the intersection of Excelsior Parade and Providence Place; and
- ◆ amendment to Excelsior Road to create a further loop road providing access to residential allotments.

Potential Effects

The changes to these road networks do not significantly change traffic patterns. Adequate additional parking is provided behind what was the motel area to ensure road variations do not effect traffic patterns. The proposed roundabout will result in improved traffic management, including better speed and safety management. The proposed loop road will also provide an optional route for traffic to Excelsior Parade.

3.4 Staging of Development

3.4.1 Staging Modifications

Proposed Variation

There is a desire to reorganise Stages Three and Four as follows;

- ◆ Stage Three: Western part of former Stage Three (Marina Basin) and whole of former Stage Four (Waterfront Lagoon).
- ◆ Stage Four: Eastern part of former Stage Three (Marina Basin) and part of former Stage 5 (Waterfront Lagoon).

Potential Effects

The original staging process was outlined in Section 2.11 of the EIS, and is discussed in Section 6.2 of the Assessment Report. Both of these documents indicate that staging should be driven by market demand.

There is now a commercial requirement to construct the western extension of Stage Three of the marina basin ahead of the eastern extension. This is driven by market demand for marina frontage lots, of which only 3 remain from the original 34 approved as part of Stage One. There is no adverse impact from this change to staging.

3.5 Marina Related Facilities

3.5.1 Launch Facility Slipway

Proposed Variation

Develop a launch facility within the slipway for marine travellifts.

Potential Effects

Modern boat handling necessitates the use of marine travellifts to move boats between the water and the hardstand and repair facilities. This launch facility will be developed as part of the construction of the extension to the marina basin.

No adverse impact is envisaged with the incorporation of this launch facility into the slipway. Management of impacts on water quality during construction should still be in accordance with Section 5.3.1 of the EIS, and ongoing monitoring (both during construction, and after completion) should still be in line with the process outlined in Section 8.1.1 of the EIS.

3.5.2 Additional Slipway Storage Shed

Proposed Variation

Include an additional slipway storage shed adjacent to the slipway.

Potential Effects

This shed is proposed to be developed between the Dry Stand Control Centre, and the undercover boat storage and lockers. There are already other buildings in the immediate vicinity, therefore the additional building will have no further access requirements. The purpose of the additional shed will be to store the travellift, slipway tractor and associated equipment.

3.5.3 Relocation of Fuel Dock

Proposed Variation

Relocate the fuel dock from the northern side of the marina basin (adjacent to the marine dry stand servicing area) to the south western side adjacent to the travellift launchway and slipways.

Potential Effects

While this will necessitate the removal of approximately 12 car parking spaces from this area, this is not considered to be a significant impact because of the large parking areas (approximately 160 parking spaces) located immediately adjacent to the area, around the Marine village, and further parking (approximately 120 spaces) adjacent to the Marine retail services and boat sales areas.

Due to the prevailing winds the relocation of the fuel dock will ensure that the dock is located in the most sheltered part of the marina basin, hence improving the safety for boats while refuelling. The proposed location is also preferred in relation to the management of spills associated with the fuel dock. The site of the proposed fuel dock is more easily able to be confined in the instance of a spillage, therefore forming a more environmentally safe solution.

3.5.4 Repair and Storage Development

Proposed Variation

Change of use for the proposed earthmoving facility adjacent to the trailer/boat storage facility. This area is to become a boat owner self repair facility and long term storage. The size of the building and yard remains unchanged from the original approval.

Potential Effects

There is a demand for a facility where boat owners can carry out their own repairs and maintenance, usually over an extended time period. The area is separated from the nearest residential area, by a Par 3 golf course, with some screening vegetation, over a distance of 110 metres. This separation distance is considered sufficient to attenuate any noise from within the building, therefore this change in use is not considered to have an impact.

3.5.5 Proposal Second Storey to Marina Office

Proposed Variation

Addition of a second storey to the existing Marina Office. This expansion will allow all management of the operations to be housed within this building, as opposed to some activities being conducted in Adelaide.

Potential Effects

The existing building is 4.5 metres high, and the approved height of the adjacent boat brokerage building is 9 metres high. The height of the building will be below the approved adjoining boat brokerage building. The style of the building is in keeping with the surrounding buildings and sufficient car parking is available in close proximity to the building. No adverse impact is expected from this amendment.

3.5.6 Increased Building Size

Proposed Variation

Increase the size of buildings 7A, 7B, 7C in the marine service and boat construction facility area by a width of 5 metres and a height of 1 metre.

Potential Effect

The purpose of this increase in size is to cater for longer and larger boats within the building. The adjacent land, which will cater for the increase in size, is otherwise unutilised, and the change in size will not affect access or traffic movements in and out of the buildings. No impact on amenity is envisaged given separation from external roads and established and proposed landscaping and mounds.

3.6 Relocation of Facilities

3.6.1 Rearrangement of Development

Proposed Variation

Change in layout of the tree nursery, bulk store and marina construction and operations area. The size and area of the building remain unchanged from the original approval, however the shape has been changed.

Potential Effects

This change is to allow for the Par 3 golf course to extend between the nursery area, and the ferry reserve. There is no impact as a result of this change.

3.6.2 Relocation of Heliport Hanger**Proposed Variation**

Change in location of the heliport hanger from the western boundary of the heliport to the eastern boundary.

Potential Effects

This will allow for safer operation of the facility, and will move the hanger closer to the car parking area. The change will not impact on either car parking, access or traffic movements. There is no impact as a result of this change in location.

3.7 Management Change**3.7.1 Timeshare Unit Development****Proposed Variation**

Convert the Motel building into 20 timeshare units in place of the approved 40 room motel. The footprint of the building will remain the same.

Potential Effects

There is demand for Timeshare Units in the area. This conversion will help to meet that demand. Adequate car parking (40 spaces) is provided, and access is not limited. There is no change to visual amenity of the area as a result of this change, therefore it is not considered that there will be any impacts from this change.

3.8 New Development**3.8.1 Real Estate Office Development****Proposed Variation**

The addition of an octagonal shaped building (see sheet no P18) adjacent to residential allotments on Main Road. The building has a height of 6.8 metres at the highest point, with the roofline beginning at a height of 2.4 metres, the width of the building is 22 metres.

The building will initially act as a Real Estate Information Office, when this use concludes it will be used as the control building for the woodlot and security centre. A small car parking area is proposed adjacent the building accommodating 7 spaces.

Potential Effects

The design of the building is such that it will blend in well to the landscaped surroundings, adequate parking and access has been provided. Trees have been provided as a buffer between the car parking area, and the adjacent residential allotments. The proposed building is considered consistent with the marina development.

3.8.2 Additional Recreation Facilities

Proposed Variation

Addition of a further tennis court between the timeshare accommodation area and Main Road.

Potential Effects

This area is currently vacant, with appropriate landscaping surrounding the tennis court. The additional tennis court will improve recreational opportunities and enhance the amenity of the area.

3.9 Commentary

Following examination and assessment of the abovementioned changes to the Marina Hindmarsh Island Environmental Impact Statement, the nature of the proposed changes are considered minor and in keeping with the original intent of the marina development.

The proposed variations to the marina development are likely to result in an improved form of development for the following reasons:

- ◆ Improved management and marketing of the marina development;
- ◆ More marketable residential allotments;
- ◆ Improved traffic management system;
- ◆ Improved operation of the woodlot effluent management system;
- ◆ Improved marina related facilities to meet the needs of the community;
- ◆ Improved control of spillages within the marina; and
- ◆ Provision of more recreational facilities.

The proposed changes will enhance the operation and function of the development and are fundamentally consistent with the original approvals.

4. Conclusion

Whilst there have been a number of changes since the approval of the original EIS some ten years ago, the nature of changes to the EIS outlined in Section 2 above only reinforce the appropriateness of the overall nature and form of the proposed development.

The essential footprint of the Hindmarsh Island Bridge, Marina Extensions and Waterfront Development meets sound planning principles.

The nature of amendments now sought in Section 3, to amend the EIS, in effect 'fine tune' elements of the development to optimise the success of the development. The changes are generally minor in nature, and reflect changing standards, changing business practices and market demand. The infrastructure will not be affected nor will change to policy be required.

The amendments are in keeping with the original intent of the Environmental Impact Statement and this Review of the Environmental Impact Statement, and are not expected to cause adverse impact on the surrounding area. The Marina Hindmarsh Island should be supported as the design promotes good urban design principles and modern best practice standards.

Appendix A

Proposed Amendments



THE MARINA GOOLWA

PART SITE PLAN

Scale: 1:1000

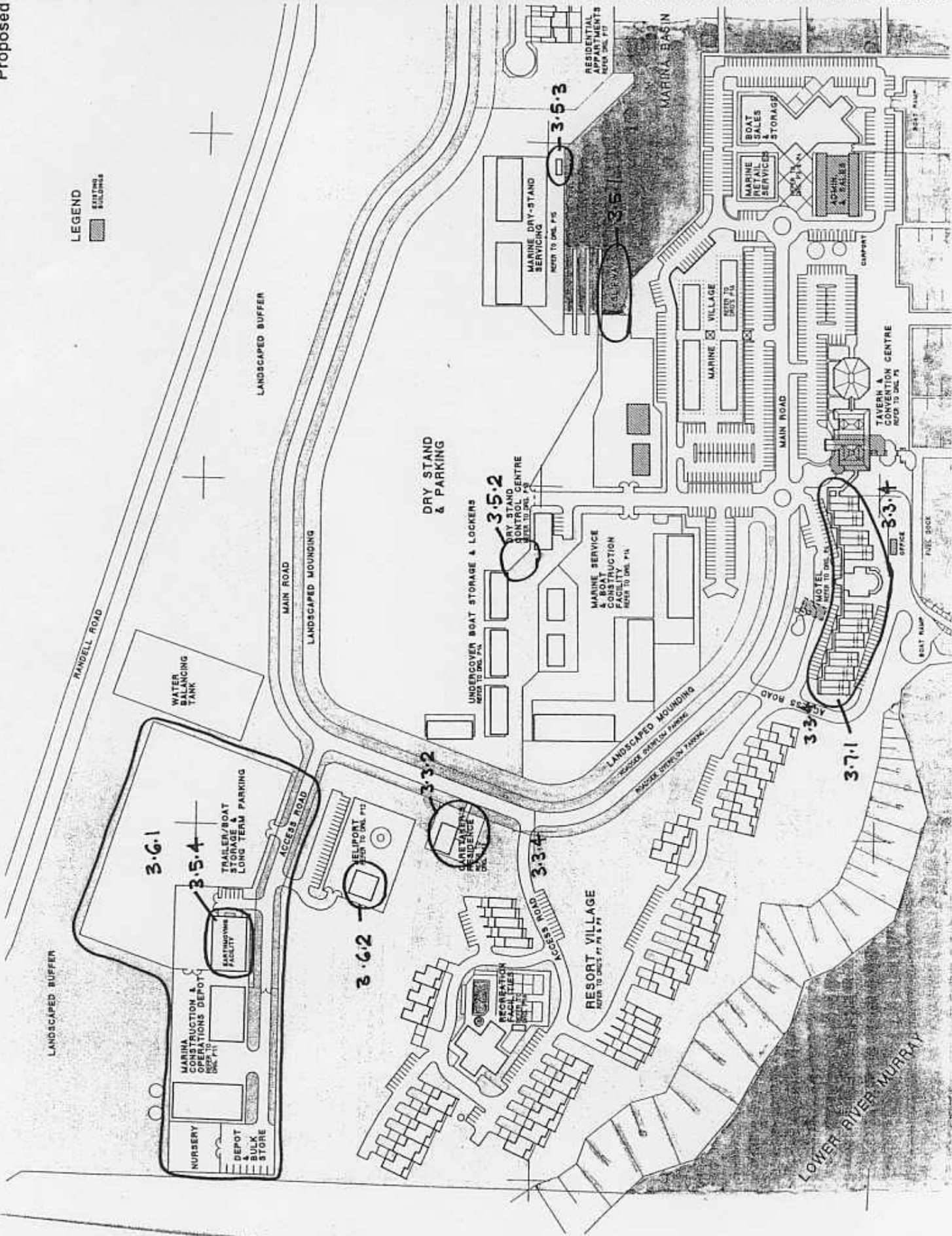
DATE: 10/10/11

PROJECT NO: 115

86 1612A

LEGEND

EXISTING BUILDINGS



CAPTAIN STURT ROAD

RANDELL ROAD

ROAD

WOODLOT

3-8-1

RESIDENTIAL SALES CENTRE

CARPARK

RESIDENTIAL ALLOTMENTS

RESIDENTIAL ALLOTMENTS



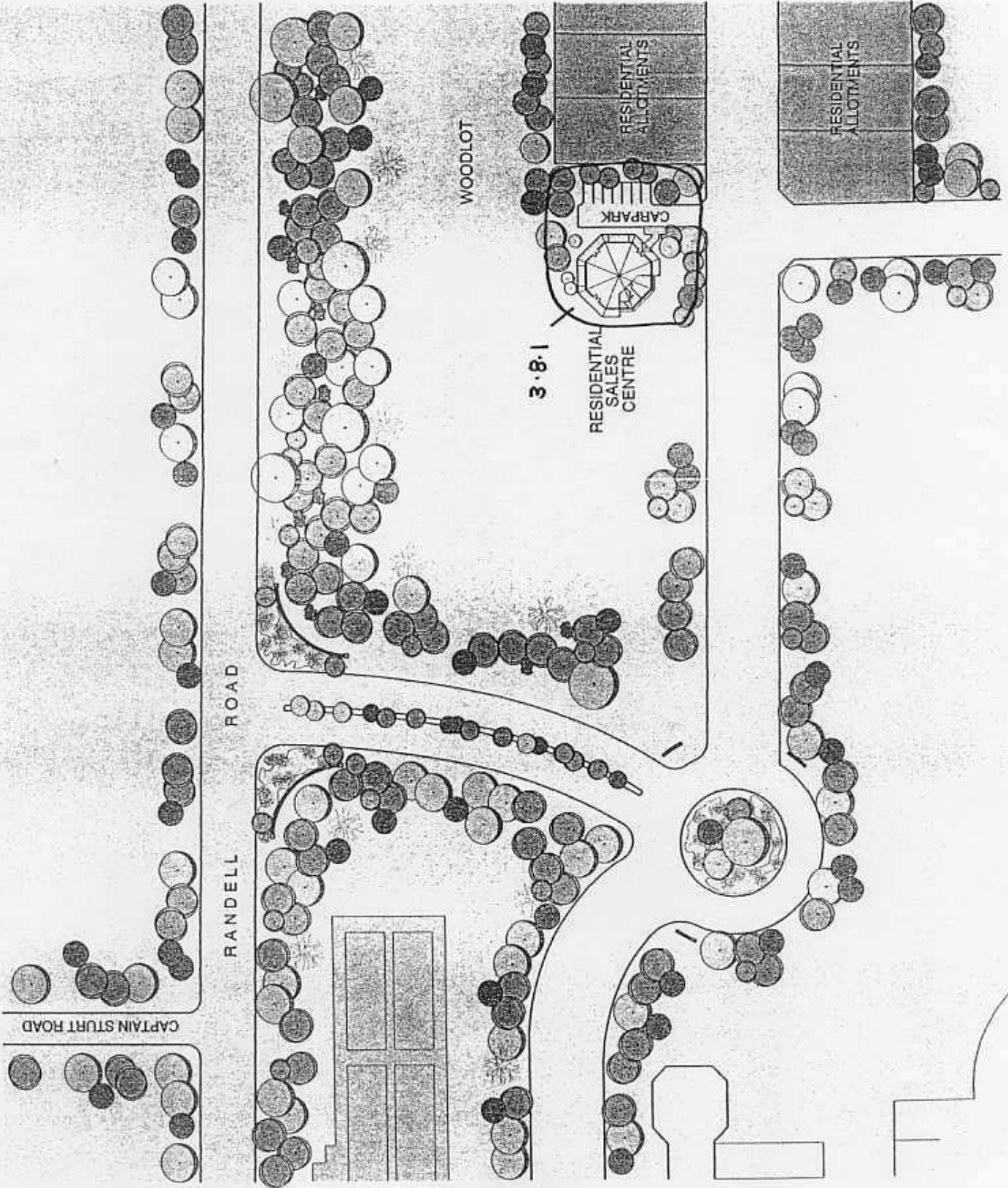
ARCHITECTURE
WalterBrooke
ESTD 1938

Project Title
KEBARD PTY. LTD.
MARINA
HINDMARSH ISLAND

Drawn By
PART SITE PLAN

Scale
1:500
Date
21.12.04
Drawn
EJ/DC
Checked
M/15/20K
Drawn
M/15/20K

Copyright
This drawing is the property of Walter Brooke Pty Ltd and is not to be used or copied without the written consent of Walter Brooke Pty Ltd.
Project No. 04-15-20K Drawn M/15/20K





Architects



James Lawrie Architects Pty Ltd
Architects

1/15/00

1/15/00

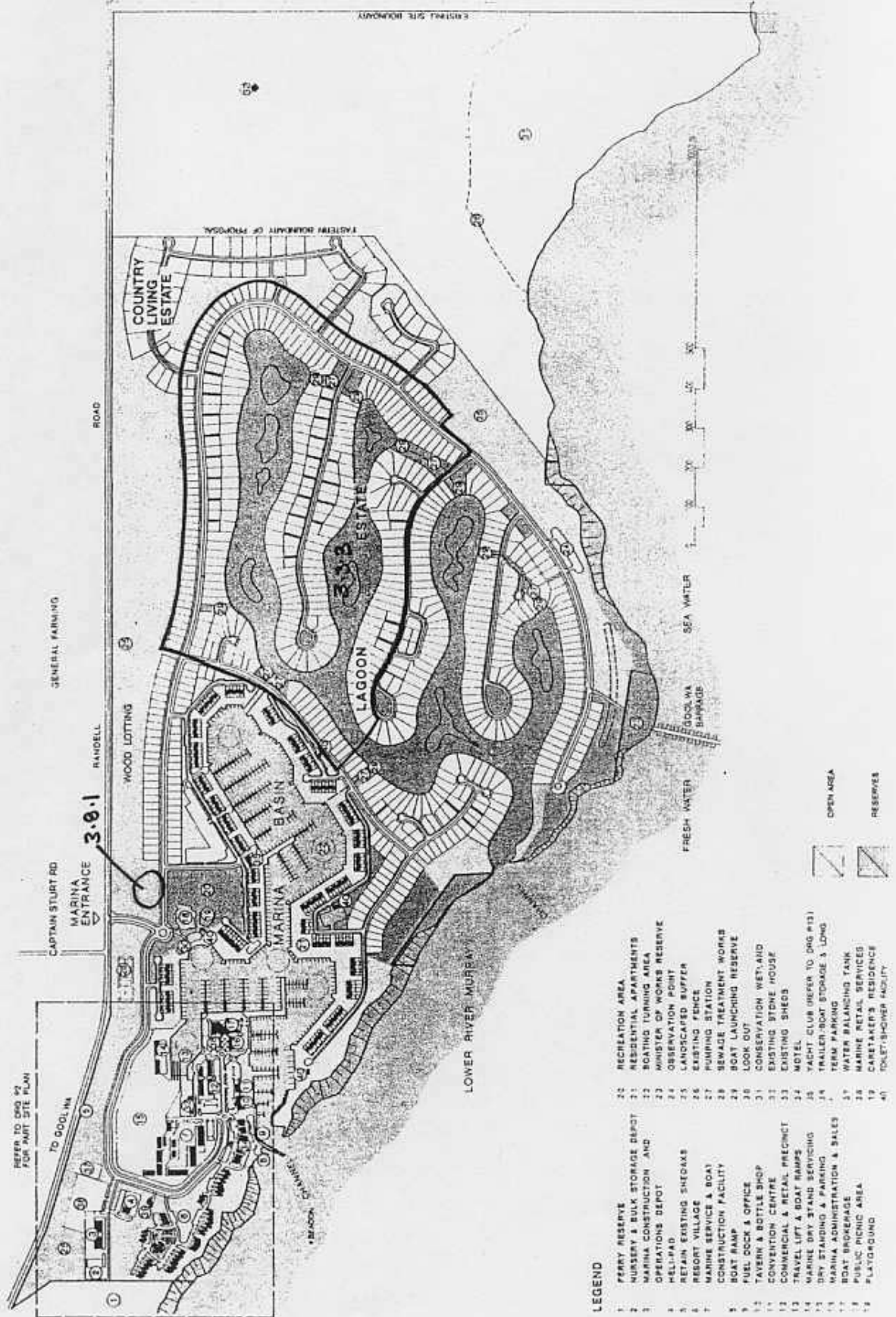
1/15/00

THE MARINA GOOLWA

SITE PLAN

Scale: 1:5000
Date: 15/03/00
Project No: P1

82-1512-A



LEGEND

- 1 FERRY RESERVE
- 2 NURSERY & BULK STORAGE DEPOT
- 3 MARINA CONSTRUCTION AND OPERATIONS DEPOT
- 4 HELIPAD
- 5 RETAIN EXISTING SHEGAMS
- 6 RESORT VILLAGE & BOAT
- 7 MARINE SERVICE & BOAT CONSTRUCTION FACILITY
- 8 BOAT RAMP
- 9 FUEL DOCK & OFFICE
- 10 TOWER & BOTTLE SHOP
- 11 CONVENTION CENTRE
- 12 COMMERCIAL & RETAIL PRECINCT
- 13 TRAVEL LIFT & BOAT RAMPS
- 14 MARINE DRY STAND SERVICING
- 15 DRY STANDING & PARKING
- 16 MARINA ADMINISTRATION & SALES
- 17 BOAT BROKERAGE
- 18 PUBLIC PICNIC AREA
- 19 PLAYGROUND
- 20 TOILET/SHOWER FACILITY
- 21 WATER BALANCING TANK
- 22 MARINE RETAIL SERVICES
- 23 TRAILER BOAT STORAGE & LONG TERM PARKING
- 24 YACHT CLUB (REFER TO DRG #13)
- 25 EXISTING STONE HOUSE
- 26 CONSERVATION WETLAND
- 27 BOAT LAUNCHING RESERVE
- 28 LOOK OUT
- 29 SEWAGE TREATMENT WORKS
- 30 PUMPING STATION
- 31 EXISTING FENCE
- 32 LANDSCAPED BUFFER
- 33 OBSERVATION POINT
- 34 WHARF OF WORKS RESERVE
- 35 BOATING TURNING AREA
- 36 RESIDENTIAL APARTMENTS
- 37 RECREATION AREA



REFER TO DRG #2 FOR PART SITE PLAN

TO GOOLWA

3.0:1

CAPTAIN STURT RD

MARINA ENTRANCE

RAHDELL

WOOD LOTTING

GENERAL FARMING

ROAD

COUNTRY LIVING ESTATE

MARINA BASIN

LAGOON

ESTABLISHED ESTATE

LOWER RIVER MURRUMBIGEE

FRESH WATER

SEA WATER

GOOLWA BARRAGE

TOILET/SHOWER FACILITY

WATER BALANCING TANK

MARINE RETAIL SERVICES

TRAILER BOAT STORAGE & LONG TERM PARKING

YACHT CLUB (REFER TO DRG #13)

EXISTING STONE HOUSE

CONSERVATION WETLAND

BOAT LAUNCHING RESERVE

LOOK OUT

SEWAGE TREATMENT WORKS

PUMPING STATION

EXISTING FENCE

LANDSCAPED BUFFER

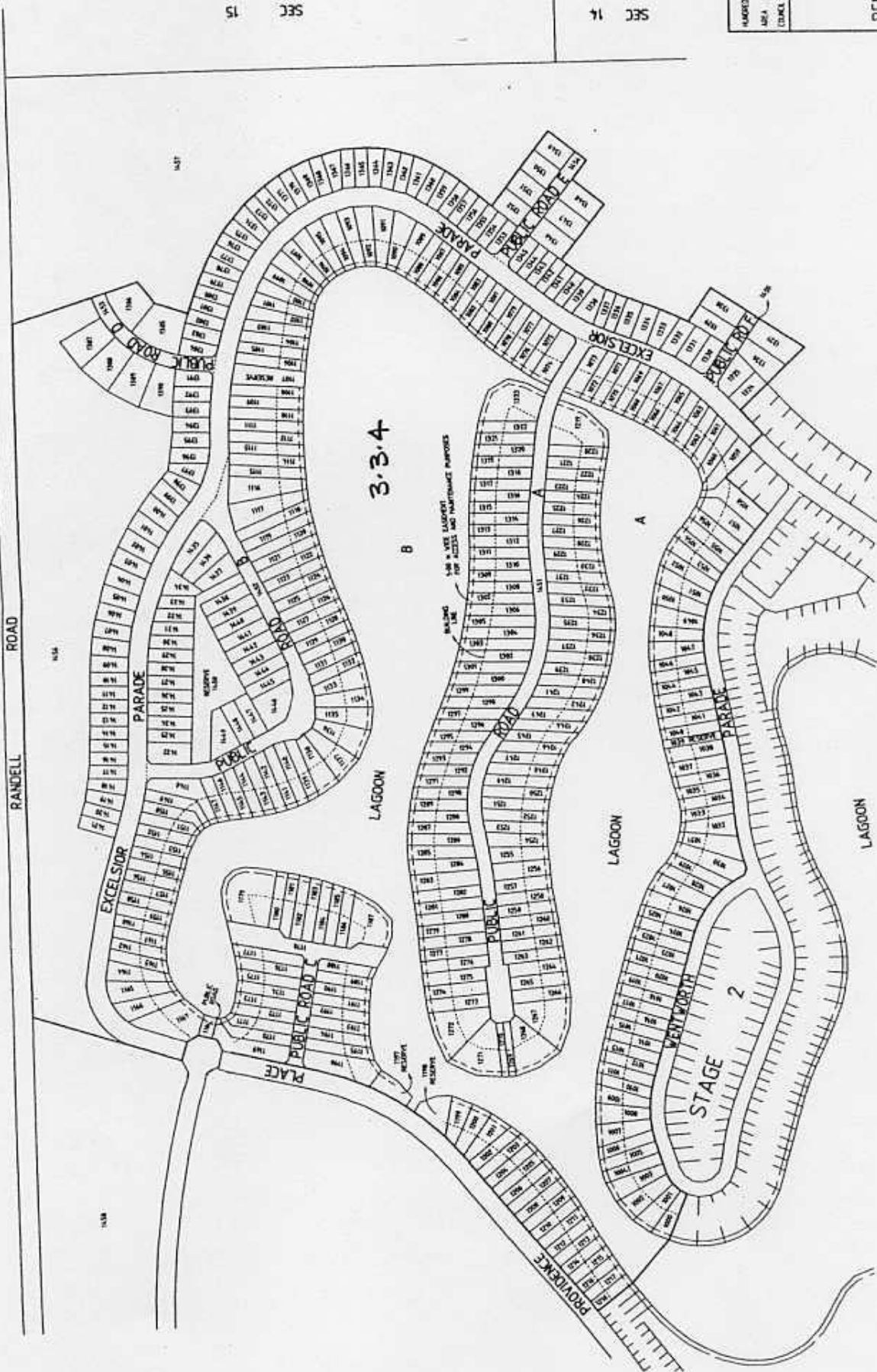
OBSERVATION POINT

WHARF OF WORKS RESERVE

BOATING TURNING AREA

RESIDENTIAL APARTMENTS

RECREATION AREA



SEC 15

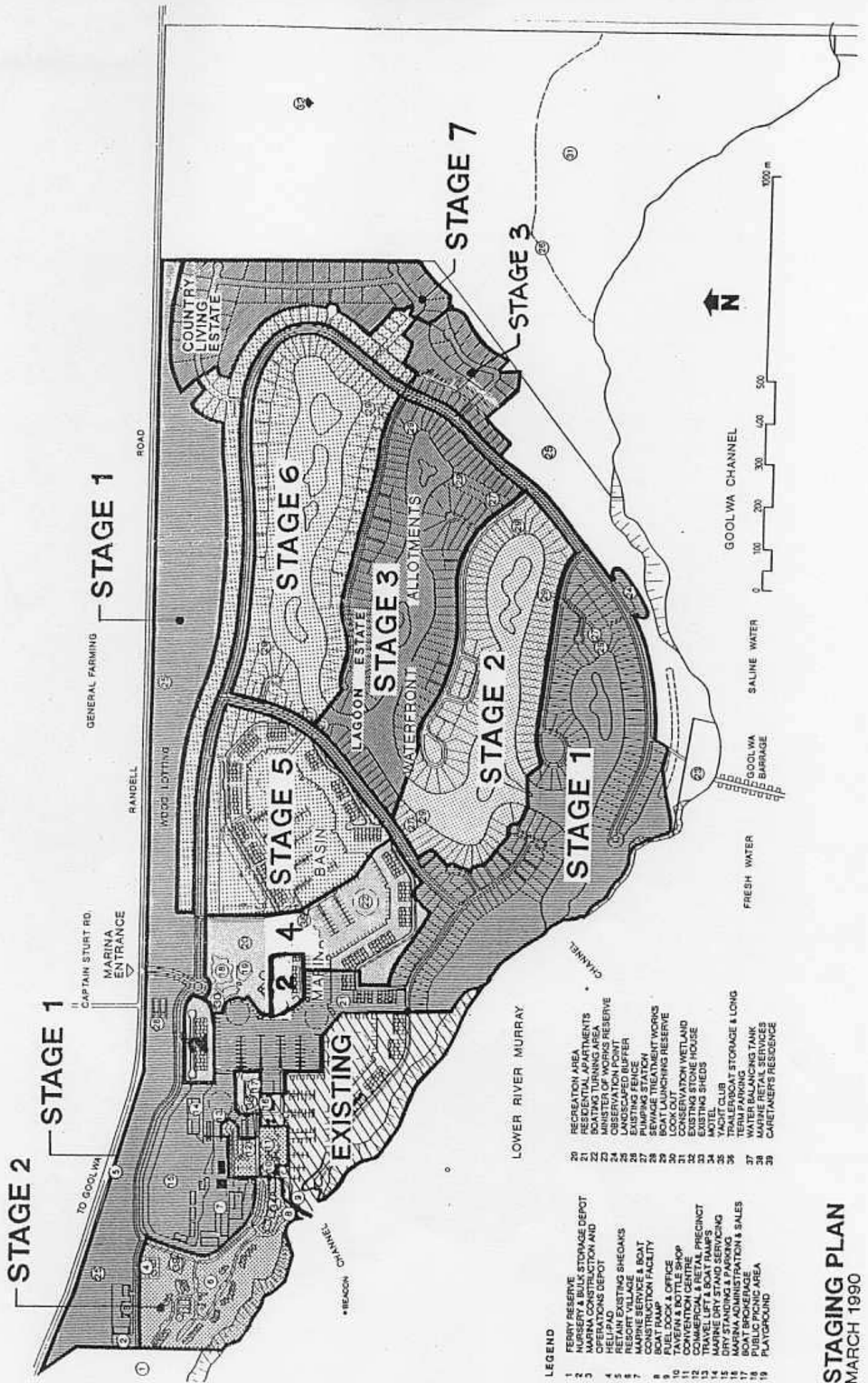
SEC 14

MAP NO. NANGKITA
 HINDMARSH ISLAND
 AREA ALEXANDRIA COUNCIL

THE MARINA
 HINDMARSH ISLAND
 REDESIGN OF STAGES 4 & 5

SCALE 0 50 100 150 200 METERS

VESKA & LOHMEYER PTY. LTD.
 LICENSED SURVEYORS
 106, FIDELITY STREET, COORLA SA 5214
 Phone (08) 8555 2732 Facsimile (08) 8555 5279
 DATE: MAY 2000 FIELD DRAWN: LV
 REFERENCE NO: 020037 REV: 01



STAGE 2

STAGE 1

STAGE 1

STAGE 1

STAGE 6

STAGE 3

STAGE 5

STAGE 3

STAGE 2

STAGE 1

STAGE 7

STAGE 3

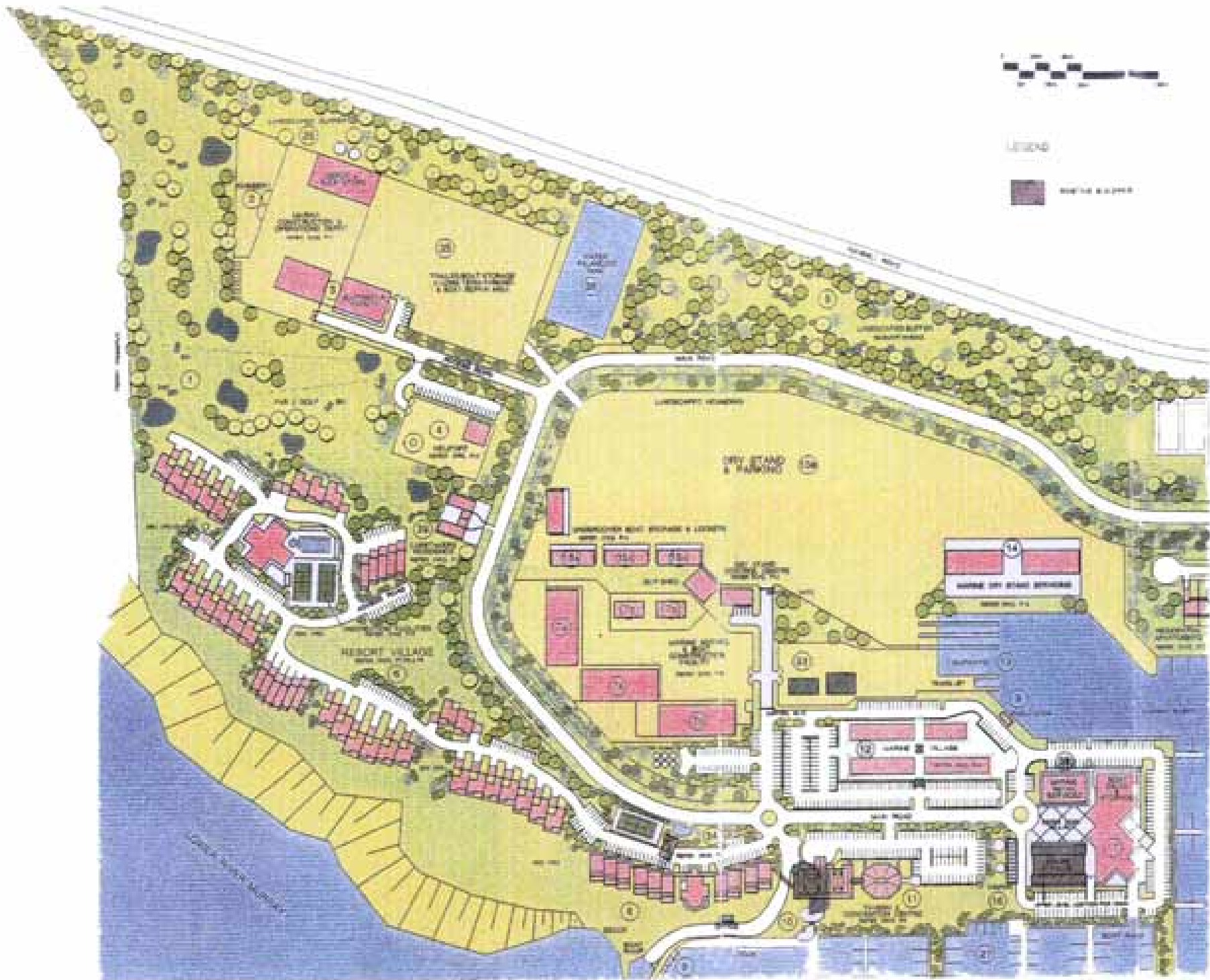
LEGEND

- 1 FERRY RESERVE
- 2 NURSERY & BULK STORAGE DEPOT
- 3 MARINA CONSTRUCTION AND OPERATIONS DEPOT
- 4 HELIPAD
- 5 RETAIN EXISTING SHEOAKS
- 6 MARINE SERVICE & BOAT CONSTRUCTION FACILITY
- 7 BOAT RAMP
- 8 FUEL DOCK & OFFICE
- 9 TAVERN & BOTTLE SHOP
- 10 CONVENTION CENTRE
- 11 COMMERCIAL & RETAIL PRECINCT
- 12 TRAVEL LIFT & BOAT RAMPS
- 13 MARINE DRY STAND SERVICING
- 14 DRY STANDING & PARKING
- 15 BOAT ADMINISTRATION & SALES
- 16 BOAT ADMINISTRATION & SALES
- 17 PUBLIC PICNIC AREA
- 18 PLAYGROUND
- 19 RECREATION AREA
- 20 RESIDENTIAL APARTMENTS
- 21 BOATING TURNING AREA
- 22 MINISTER OF WORKS RESERVE
- 23 OBSERVATION POINT
- 24 LANDSCAPED BUFFER
- 25 EXISTING FENCE
- 26 PUMPING STATION
- 27 SEWAGE TREATMENT WORKS
- 28 BOAT LAUNCHING RESERVE
- 29 COOK OUT
- 30 CONSERVATION WETLAND
- 31 EXISTING HOUSE
- 32 EXISTING SHEDS
- 33 MOTEL
- 34 YACHT CLUB
- 35 TRAILER/BOAT STORAGE & LONG TERM PARKING
- 36 WATER BALANCING TANK
- 37 MARINE RETAIL SERVICES
- 38 CARETAKER'S RESIDENCE
- 39

STAGING PLAN
MARCH 1990

Appendix B

Proposed Development



PREPARED BY
WalterBrooks

FOR THE
KERARO PTY. LTD
MARINA
HOBART ISLAND

DATE: 10/10/00
PART SITE PLAN

Scale: 1:1000
 Date: 10/10/00
 Drawn: [Name]
 Checked: [Name]
 Approved: [Name]
 Project No: [Number]



ARCHITECT: **WATTS & BRISKE**
PROJECT NAME:

OWNER: **KEBARD PTY. LTD.**
MARINA
HAWAIIAN ISLANDS

DATE: **PART SITE PLAN**

Scale: 1:1000
Site: 1000m x 1000m
Date: 10/10/2011
Author: W & B

Notes:
1. This plan is to be used in conjunction with the
2. All dimensions are to be taken from the
3. All dimensions are to be taken from the
4. All dimensions are to be taken from the
5. All dimensions are to be taken from the
6. All dimensions are to be taken from the
7. All dimensions are to be taken from the
8. All dimensions are to be taken from the
9. All dimensions are to be taken from the
10. All dimensions are to be taken from the





ARCHITECTS *Watt & Freeland*

100/101 BRIDGE STREET

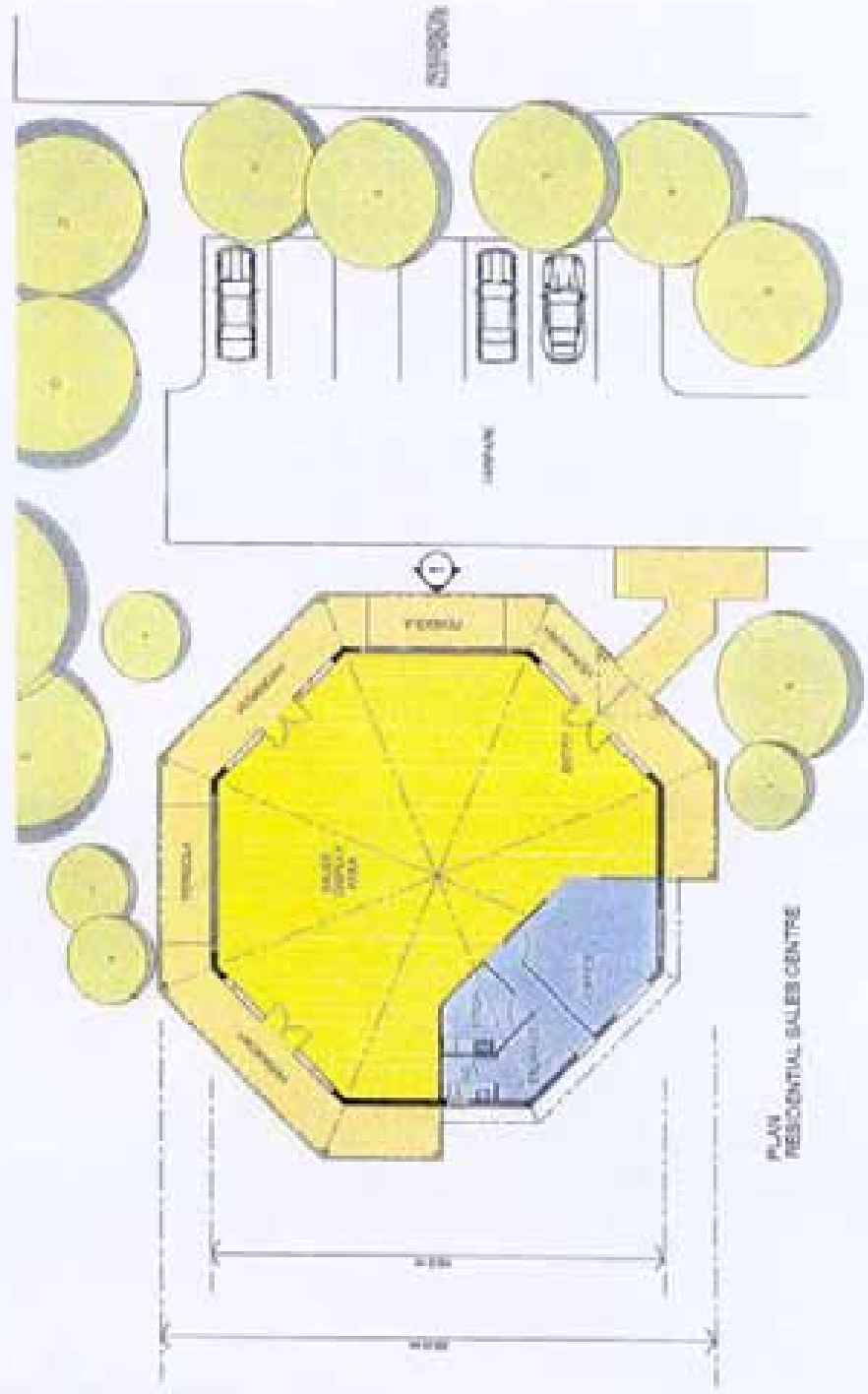
FROM THE
ACRIMO PTY. LTD
MARINA
HOBART TOWN ISLAND

RESIDENTIAL
SALES CENTRE
PLANS - ELEVATION
DRAWING NO. 100/101
DATE 10/10/00
SCALE 1:100
DRAWN BY J.W.

FOR MORE INFORMATION CONTACT
MIRINA REAL ESTATE
100/101 BRIDGE STREET
HOBART TASMANIA 7000
PHONE 03 6231 1234 FAX 03 6231 1235



ELEVATION 1

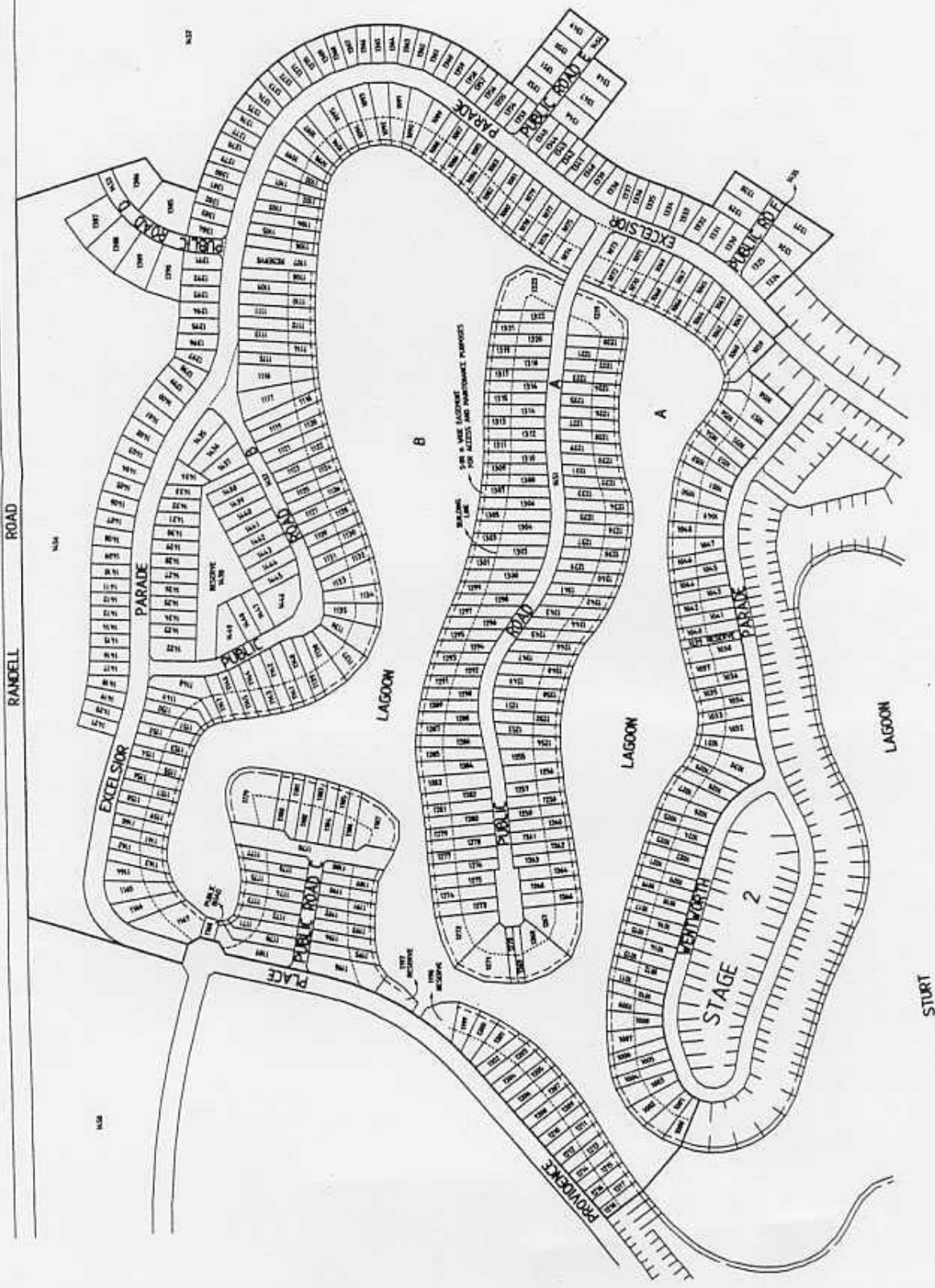


PLAN
RESIDENTIAL SALES CENTRE



15 SEC

16 SEC



NAME: MANKITA
 AREA: HINDMARSH ISLAND
 (DRAWN): ALEXANDERINA COUNCIL

**THE MARINA
 HINDMARSH ISLAND**
 REDESIGN OF STAGES 4 & 5

SCALE: 0 50 100 150 200 METRES
 DATE: MAY 2000 | FIELD: DRAWN: LV
 REFERENCE No: G20037 | REV: 01

VESKA & LOHMEYER PTY. LTD.
 LICENSED SURVEYORS
 164 FERRELL STREET GOOLVA SA 5216
 Phone: 081 855 2752 Facsimile: 081 855 2005

APPENDIX E

Copy of Council and Government Agency Comments



SR:7.046.005

25 September 2000

Lee Webb
C/- Planning SA
GPO Box 1815
ADELAIDE SA 5001

Dear Lee,

HINDMARSH ISLAND MARINA DEVELOPMENT

Further to our telephone conversation on 21 September 2000 regarding the above development I wish to confirm in writing the issues that were raised. With respect to the amendments to the marina development Council shall await receipt of your report prior to offering any additional comments, however at this stage Council does not have any major concerns with the amendments put forward. Council will also be interested in meeting with you and other parties involved with the project to discuss the management authority concept in respect to the lagoon water quality issues and whose responsibility it is to monitor this.

Finally I would like to point out that when the zoning was changed in 1993 to accommodate the marina development an error occurred in respect to the boundaries of the Residential Marina (Hindmarsh Island) zone. There is a portion of the marina on the southern side that is actually in the Conservation (Hindmarsh Island) zone and the Rural Waterfront (Hindmarsh Island) zone. Refer Map Alex/65 of the Alexandrina Council Development Plan. Although Planning SA gave Council the authority to treat applications in this part of the marina as if they were in the marina zone it would make sense to amend this anomaly while the whole development is being reassessed. It may just require this request being forwarded onto the policy branch to do an amendment.

Trusting that this information is sufficient however should you wish to discuss any of the above matters further please feel free to contact the undersigned.

Yours faithfully,

SALLY ROBERTS
PLANNER



**PRIMARY INDUSTRIES
AND RESOURCES SA**

AGRICULTURAL INDUSTRIES
AQUACULTURE
FISHERIES
MINERAL RESOURCES
PETROLEUM
SUSTAINABLE RESOURCES
OFFICE OF ENERGY POLICY
RURAL COMMUNITIES OFFICE
SA RESEARCH AND
DEVELOPMENT INSTITUTE



Our Ref: 00/1238

28/8/00

Planning SA
Department for Transport, Urban Planning and the Arts
GPO Box 1815
ADELAIDE SA 5001

ATTENTION: ELMER EVANS

Dear Elmer

HINDMARSH ISLAND MARINA DEVELOPMENT

Thank you for the opportunity to comment on the above.

The Department has no objections with the proposed review of the approved design layout of the Hindmarsh Island Marina Development.

For any further inquiries please contact Malcolm Bayly on telephone 846 33186.

Yours faithfully

Michael Stone

Michael Stone
CHIEF ENVIRONMENTAL ADVISOR

ENVIRONMENT UNIT
Level 6, 101 Grenfell Street, Adelaide SA 5000
GPO Box 1671, Adelaide SA 5001
Telephone (08) 846 33186 Facsimile (08) 846 33197



Government
of South Australia



**SOUTH AUSTRALIAN
WATER CORPORATION**

BULK WATER DIVISION

EAST TERRACE, THEBARTON
SOUTH AUSTRALIA 5031

TELEPHONE +61 8 8207 1313
FACSIMILE +61 8 8207 1346

RECEIVED

3 0 AUG 2000

ENVIRONMENTAL IMPACT
ASSESSMENT BRANCH

Our Ref : SA WATER 05689/00
Your Ref : PLN/99/0482
Enquiries : Paul Feronas
Telephone : (08) 8207 1317
Facsimile : (08) 8207 1346

August 2000

Mr. Elmer Evans
Manager Environmental Impact Assessment Branch
GPO Box 1815
South Australia 5001

Dear Mr Evans,

Hindmarsh Island Marina Development

As requested in your letter dated 1/8/00 the proposed changes outlined in the 'Review and Amendment of the Environmental Impact Statement on the Hindmarsh Island Bridge Marina Extensions & Waterfront Development' document have been examined with regard to the provision of water supply infrastructure and there are no comments.

Yours sincerely

A handwritten signature in dark ink, appearing to read "R Perry".

R Perry
GENERAL MANAGER NETWORKS



Department of
Industry and Trade

Reference: 090/001/014
Enquiries: Michael Shillabeer
Telephone: 8303 2901
Fax: 83032511

24 August 2000

Mr Elmer Evans
Manager
Environmental Impact Assessment Branch
Planning SA
GPO Box 1815
ADELAIDE SA 5001

Level 10, Terrace Towers
178 North Terrace, Adelaide
South Australia 5000

GPO Box 1264, Adelaide
South Australia 5001

Telephone +61 8 8303 2400
Facsimile +61 8 8303 2410
www.business@saugov.sa.gov.au
DX 452 Adelaide

Department of
Industry and Trade

Dear Elmer

**RE: HINDMARSH ISLAND MARINA DEVELOPMENT – REVIEW AND
AMENDMENT OF ENVIRONMENTAL IMPACT STATEMENT**

I refer to the above proposal forwarded to the Department of Industry and Trade for comment by your Branch.

The Department of Industry and Trade has considered the proposal and has no comment to make.

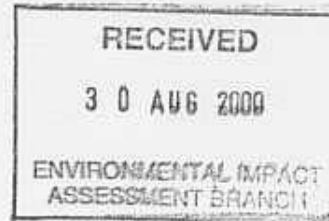
The opportunity to comment on this proposal is appreciated. If you have any questions relating to this correspondence, please do not hesitate to contact Michael Shillabeer, Project Manager, Urban Planning on telephone (08) 8303 2901, facsimile (08) 8303 2511 or via e-mail shillabeer.michael@saugov.sa.gov.au.

Yours sincerely

Anthony Rowe
Manager, Environment and Community Development
INDUSTRY POLICY AND PLANNING



DPC 97/0418 Prt 2



GPO Box 2545
Adelaide 5001
South Australia

Telephone
61 8 8226 5500

Facsimile
61 8 8226 5555

www.premcab.
sa.gov.au

Mr Elmer Evans
Manager, Environmental Impact Assessment Branch
Planning SA
GPO Box 1815
South Australia 5001

Dear Mr Evans

RE: HINDMARSH ISLAND MARINA DEVELOPMENT

Thank you for the opportunity to provide comment on the proposed amendments to the EIS for the Hindmarsh Island Bridge, Marina Extension and Waterfront Development.

The Department of the Premier and Cabinet has no comments on the amendments to the EIS at this stage. However I would appreciate it if you could please continue to keep me informed on the progress of the EIS and provide me with a copy of the Assessment Report should it require amendments.

Yours sincerely

Trudi McDonald
Director, Urban and Resources Policy Branch
CABINET OFFICE

25 August 2000



In reply please quote File 99/07429
Enquiries to Les Zetlein
Telephone (08) 8343 2145



30 August 2000

Mr Elmer Evans
Manager
Environmental Impact Assessment Branch
Planning SA
GPO Box 1815
ADELAIDE SA 5001

Dear Mr Evans,

Department for Transport,
Urban Planning and the Arts

HINDMARSH ISLAND MARINA DEVELOPMENT

With regard to the proposed changes that were outlined in the "Review and Amendment of the Environmental Impact Statement on the Hindmarsh Island Bridge Marina Extensions & Waterfront Development", Transport SA would like to provide the following comments:

- We agree that the proposed variations regarding the road network are not expected to significantly change traffic patterns.
- The proposed changes to the Marina Related Facilities are expected to improve boat safety and reduce the impact on the environment in regard to fuel spillages. However, the development of a launch facility within the slipway for marine travellifts, and the repair and storage development, are possible causes for concern. It is anticipated that there will be significant boat maintenance done at the marina and therefore infrastructure will be required to intercept waste and run off.
- The Heliport Hanger will be relocated to a position located further from resort facilities. Therefore, the Helipad will be located closer to these facilities. Noise generated from helicopters may pose a problem to resort residents, and further investigation into this issue may be necessary.

Transport SA
ABN 41 659 119 911
33-37 Warwick Street
Walkerville, SA 5081
Telephone 08 8343 2222
Facsimile 08 8343 2585
PO Box 1
Walkerville, SA 5081

Yours sincerely,

A handwritten signature in black ink, appearing to read "Les Zetlein".

Les Zetlein
MANAGER PLANNING LIAISON





DEPARTMENT OF HUMAN SERVICES

Public and Environmental Health Service

Environmental Health Branch

PEHS 003/00/0303
PEHS 00/03194

27 October 2000

Attention: Mr Elmer Evans - Manager
Environmental Assessment Branch
Department for Transport, Urban Planning and the Arts
GPO Box 1815
ADELAIDE SA 5001

Dear Sir

Re: Review and Amendment of the EIS on the Hindmarsh Island Marina Development

Thank you for the opportunity to comment on the review and amendment of the EIS on the Hindmarsh Island Marina Development. The proposed development changes comprise the following:

- Smaller sized allotments and, hence, a greater number of waterfront allotments in stages 4 and 5 of the development
- Minor variations in the shape of the residential lagoons and service infrastructure
- Changed staging of construction
- Replacing the motel with timeshare accommodation and the addition of another tennis court
- Minor changes to various service facilities and infrastructure.

In providing comment on the amended EIS, only incomplete documentation regarding the original EIS has been available for perusal. This is a consequence of previous legal action regarding the development.

Currently, the proponents have approval for (and have constructed) a wastewater treatment plant for 1,000 equivalent persons. That is, sufficient to cater for 286 residential allotments. It is noted that the revised plans for the Marina Development Stages 4 and 5 alone entail 445 residential allotments. However, the final number of allotments in the development has not been identified.

The expansion of the waste control collection and treatment facilities should be staged to cope with the increase in the number of premises served. They should be provided as the development proceeds. The increased number of allotments will require an adequate area for the woodlot irrigation system.

Level 2
150 Grenfell Street
Adelaide SA 5000

PO Box 6, Rundle Mall
Adelaide SA 5000

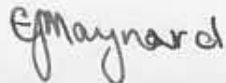
Telephone (08) 8226 7100
Facsimile (08) 8226 7102

Advice should be provided to all waterfront allotment owners and other potential users that the Marina and residential lagoons water body is not suitable for primary human contact activities, eg, swimming. Secondary human contact, eg, boating, might be acceptable subject to meeting the appropriate criteria.

The other amendments will possibly have no additional adverse affect of the water quality of the Marina or residential lagoons.

Should you have any queries regarding these comments, please contact the above action officer (telephone 8226 7145 or e-mail frank.callaghan@dhs.sa.gov.au).

Yours sincerely



Dr E J Maynard
ACTING DIRECTOR
ENVIRONMENTAL HEALTH SERVICE

Fpc
27 Sept 2000
S:\Division.s\PEH\ENVHLTH\EnvironSurv\Callaghan\Major Developments\EH014542 Hindmarsh Island Marina Devlpt
EIS.doc

Department for Environment and Heritage

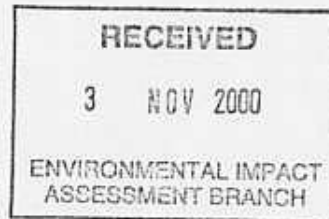
Environment Protection Agency

Level 7 Australis House
77 Grenfell Street
Adelaide
South Australia 5000

GPO Box 2607 Adelaide
South Australia 5001
Australia

Telephone (08) 8204 2000
Facsimile (08) 8204 2020
<http://www.dehaa.sa.gov.au>

1 November 2000



Mr Elmer Evans
Manager, Environmental Impact Assessment Branch
Planning SA
GPO Box 1815
South Australia SA 5001

Dear Mr Evans

I refer to your recent correspondence seeking Environment Protection Agency ("the EPA") comments on the proposed changes to the "Marina Hindmarsh Island" development.

Officers from the EPA have inspected the existing Stage 1 marina development and consider that the operator is meeting its general environmental duty and complying with all relevant environment protection policies under the Environment Protection Act 1993 ("the Act"), in particular, the Environment Protection (Marine) Policy 1993.

Having reviewed the document "Review and Amendment of the Environmental Impact Statement on the Hindmarsh Island Bridge Marina Extensions and Waterfront Development, this Agency is of the view that the proposed amendments to the development will not impact adversely on the environment in terms of the creation of environmental harm (including environmental nuisance) as defined in the Act.

Notwithstanding this, marinas do have the potential to be sources of environmental harm through discharges from vessels using the marina. Additionally, parking areas have the potential to generate contaminated runoff, with the pollutants entering waterways via stormwater.

In particular, a potential exists for environmental harm from toilet wastes to occur if vessels are used for overnight accommodation at the site. Overnight accommodation therefore should not be allowed on site unless vessels are fitted with tanks to hold wastewater generated on board, or toilet facilities are made available onsite.



Government
of South Australia

There must be a location designated in the marina where holding tanks can be pumped out. The proposal does not appear to allow for the location of effluent pumpout facilities (including the provision of an appropriately located connection point).

The development should incorporate facilities which will enable it to comply with '*Best Practice Guidelines for the Provision of Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand*' prepared for the Australian and New Zealand Environment and Conservation Council.

Landscaping or other structures used to accept stormwater from paved areas such as carparks should provide filtration of stormwater prior to discharge to the stormwater system or the riverine environment.

A Contingency Plan should be developed and maintained for the control, containment or mitigation of any spills, accidents or plant failures that may cause environmental harm.

The potential for environmental harm to be caused through the proposed amendments to the Marina Hindmarsh Island development may be minimised by the following provisions:

- Appropriate practices on site, as provided for in the Best Practice Guidelines for the Provision of Waste Reception Facilities at Ports, Marinas and Boat Harbours in Australia and New Zealand prepared for the Australian and New Zealand Environment and Conservation Council.
- The development and maintenance of a Contingency Plan for the control, containment or mitigation of any spills, accidents or plant failures that may cause environmental harm.
- Ensuring that users of the facility do not remain overnight without appropriate facilities.
- All stormwater runoff from car parking, driveways and hard paved areas should be diverted into a stormwater treatment system capable of removing litter, sediment and oil products, and which incorporates a high flow by-pass system that discharges directly to the council stormwater system.

For further information on this matter please contact the undersigned on 8204 2136.

Yours sincerely



Peter Torr
Manager, Environmental Planning
ENVIRONMENT PROTECTION AGENCY

APPENDIX F

Copy of Proponent's Memorandum of Encumbrance

MEMORANDUM OF ENCUMBRANCE

CERTIFICATE(S) OF TITLE BEING ENCUMBERED

Allotment in DP 55715 being portion of the land comprised in Certificates of Title Register Book Volume 5511 Folio 257 and Volume 5782 Folio 18 **OR** the whole of the land comprised in Certificate of Title Register Book Volume Folio .

ESTATE AND INTEREST

An estate in fee simple

ENCUMBRANCES

Nil

ENCUMBRANCER (Full Name and Address)

ENCUMBRANCEE (Full Name and Address and Mode of Holding)

KEBARO PTY LTD ACN 064 584 667 of C/- PO Box 555, Goolwa 5214

OPERATIVE CLAUSE

THE ENCUMBRANCER ENCUMBERS THE ESTATE AND INTEREST IN THE LAND ABOVE DESCRIBED FOR THE BENEFIT OF THE ENCUMBRANCEE SUBJECT TO THE ENCUMBRANCES AND OTHER INTERESTS AS SHOWN HEREON WITH AN ANNUITY

- | | |
|---|---|
| (a) Insert the amount of the annuity or rent charge | (a) OF AN ANNUAL SUM OF ONE HUNDRED DOLLARS (\$100.00) AS A RENT CHARGE ON A GST EXCLUSIVE BASIS (IF DEMANDED BY THE ENCUMBRANCEE) |
| (b) State the term of the annuity or rent charge.
If for life use the words "during his or her lifetime" | (b) TO BE PAID TO THE ENCUMBRANCEE FOR A PERIOD OF NINE HUNDRED AND NINETY NINE (999) YEARS |
| (c) State the times appointed for payment of the annuity or rent charge. Any special covenants may be inserted on page 2. | (c) AT THE TIMES AND IN THE MANNER FOLLOWING

ON THE 1ST DAY OF JANUARY IN EACH AND EVERY YEAR COMMENCING WITH THE 1ST JANUARY NEXT AFTER THE DATE OF THIS ENCUMBRANCE THE CURRENT RENT CHARGE AS AT EACH SUBSEQUENT 1 ST JANUARY IS VARIED ON THAT DATE BY THE VARIATION IN THE CONSUMER PRICE INDEX FOR ADELAIDE (ALL GROUPS) FOR THE PREVIOUS YEAR ENDING 31 ST DECEMBER |

IT IS COVENANTED BETWEEN THE ENCUMBRANCER AND ENCUMBRANCEE as follows:

The purpose of this encumbrance

1. The encumbrancer on page 1 (“you”, “your”) grants this encumbrance -
 - (a) for the benefit of the encumbrancee on page 1 (“we”, “our”, “us”)
 - (b) for the benefit of each present and future owner of land within the Marina
 - (c) to charge the land on page 1 (“the land”) with the payment of the annuity on page 1 (“the rent charge”) in order to secure compliance with the covenants contained in this encumbrance
 - (d) for the purpose of a common building scheme for the development of the Marina and
 - (e) with the intent that these covenants run with and bind the land and your successors in title

Interpreting this encumbrance

2. In this encumbrance, unless the contrary intention appears -
 - (a) “the Marina” means the marina and residential development presently known as “The Marina Hindmarsh Island” being the whole of the area in the south-west corner of Hindmarsh Island bounded by Randell Road, Monument Road and the River Murray except for Crown Land
 - (b) “development” means work of any kind, including but not limited to -
 - “building work” as defined in the *Building Work Contractors Act*
 - the construction or alteration of any permanent or temporary structure
 - earthworks or landscaping of any kind
 - repairs, painting or improvements of any kindand “develop” and “undertake development” each has a corresponding meaning and includes causing, suffering or permitting development
 - (c) “allotment” means any allotment in the Marina
 - (d) “waterfront allotment” means an allotment with a boundary with land that is permanently under water
 - (e) the “water’s edge” of a waterfront allotment means where the land strikes the water when the water level is at 0.75 metres Australian Height Datum
 - (f) “S.A. Water” means South Australian Water Corporation or its successor
 - (g) “you” and “your” includes the registered proprietor for the time being of the land
 - (h) reference to giving access to us includes giving access to our employees, agents and contractors
 - (i) reference to a party includes the party’s successors and transferees (and also the party’s personal representatives, if the party is a natural person)
 - (j) reference to any statute includes statutes which change or replace it and
 - (k) any word indicating the singular includes the plural, and vice versa.
3. If there are more than one of you then -
 - we only have to give notices to one of you and

- all your obligations in this encumbrance are joint and several.

Restrictions on the use and development of the land

4. You must use the land only for private residential purposes.

Development must not be undertaken on the land without our prior written approval or contrary to the terms of our written approval.

You must not breach any development guidelines we issue from time to time relating to carrying out any development on the land.

Development rules

5. You must not undertake any development on the land or allow any development to remain on the land (regardless of when that development was undertaken) except in strict accordance with the following rules.

- (a) Any development on an allotment must not be within 25 metres from the water's edge.
- (b) For a waterfront allotment -
 - no fixed fence may be constructed anywhere within the area 4 metres from the water's edge and
 - you must not obstruct us, or any emergency service, from crossing your allotment in that area (including, if need be, with plant and equipment).
 - any fence within 25 metres from the water's edge must be an open fence that is easy to see through (such as a post and rope fence).
- (c) Any development on any allotment must not -
 - have a floor level below 3.0 metres Australian Height Datum
 - include excavation below 1.0 metre Australian Height Datum or
 - be within 3 metres from any boundary between the land and any road reserve.
- (d) No development may exceed 2 storeys or 6 metres in height (whichever is lower) above the average level of the land.
- (e) No external walls or cladding may be constructed using sheet or corrugated fibre cement, simulated brick or stone or metal sheeting of any kind (except with our prior written consent).
- (f) All materials used must be new.
- (g) No roof may be flat.
- (h) Every corrugated iron roof must be constructed using metal sheeting that is factory coated and pre-coloured. Every tiled roof must be constructed using tiles of a colour approved by us.
- (i) All structures on the land must be of such a design, appearance and colour so as to be architecturally compatible with each other.

This includes any clothesline, letterbox, garden ornament or solar water heating unit.
- (j) The land must be properly fenced before anybody occupies it.
- (k) All landscaping of the land must be completed within 90 days after it is first occupied.
- (l) No garage, shed, carport or verandah may be constructed on the land before a dwelling is constructed.
- (m) At least two carparking spaces per dwelling must be provided.

At least one of them must be under the cover of a garage or carport.

- (n) No aerial, satellite dish, windmill or other structure may be erected so that any part of it is above the roof ridge line of a dwelling on the land.
- (o) Any evaporative airconditioning unit installed on a roof must be architecturally compatible with the roof.
Otherwise, airconditioning units must be below the eaves line, and be screened from public view.
- (p) No signs may be erected on the land except a sign which advertises a display home, or vacant or improved land, for sale, or any sign legally required under the Building Work Contractors Act. Any sign must be professionally made and written and be 900mm square in size (unless otherwise approved).
- (q) Driveways must be at least 3 metres wide.
- (r) A driveway must be 5½ metres or less in width where it meets the street alignment.
- (s) Any tank must be either -
 - colourbond (or painted so as to be compatible with a dwelling) and rectangular in shape or
 - located behind a suitable screen.
- (t) Unless the law otherwise requires, fences, retaining walls or similar structures must not exceed 1.8 metres in height.
- (u) From immediately before the laying of the concrete slab or foundations for construction on the land you must ensure that a fence is erected on the perimeter of the land to prevent rubbish and debris escaping. The fence must be constructed of 50 millimetre galvanised chicken mesh wire, with star droppers at 3 metre centres, and of 1200 millimetres in height. If you do not do so, we may install such a fence and charge you for it.

On completion of construction, you must remove and dispose of that fence.
- (v) At all times during the carrying out of any construction on the land, you must place any waste, rubbish, debris, sewerage, wastewater or noxious material into a suitable receptacle and remove it from the land.
- (w) Development must not be undertaken except in strict accordance with the terms of our prior written approval.

How to obtain our approval for development

6. If you wish to undertake any development on the land, you must give us a written request for approval, pay us the fee we fix (acting reasonably) from time to time to apply for our approval, and give us plans for the proposed development showing -
 - sufficient details to indicate its architectural theme
 - the construction materials and colours
 - the location of the development in relation to the boundaries of the land and any easements on the land
 - the contours of the land
 - on-site parking provision
 - the stormwater drainage system
 - any proposed access and landscaping and
 - the location and type of any proposed fence, retaining wall or other structure.
7. The plans must also be such as would be suitable for lodging with a council for planning or building approval.
8. We may call for reasonable further information. You must then provide it promptly.

9. We must consider the above documents within a reasonable period after you give them to us, and then promptly inform you of our decision.
10. No approval is effective unless in writing signed by our authorised officer.
11. Approval may be given subject to conditions.
12. We must not unreasonably refuse approval, or place unreasonable conditions on it.

Approval is deemed to be reasonably refused if a registered architect certifies that the proposed development -

- does not conform with the general standards of design and planning for the Marina
 - does not conform with any rules for development in this encumbrance, or any of our development guidelines or
 - may have an undesirable affect on the development, appearance or amenities of the Marina.
13. Once we have given approval, you must -
 - promptly obtain any required statutory approvals for the development
 - give a copy of your approved plans, this encumbrance, and the development guidelines, to your builder
 - ensure your builder complies with them and
 - promptly carry out the development in accordance with the terms of our approval and any statutory approval.
 14. An approval lapses if you do not substantially complete the development within two years.

Rules governing your use of the land

15. You must not breach any of the following rules in using or owning the land.
 - (a) You must not subdivide the land, or create any additional allotment from it.
 - (b) Transportable buildings and incinerators are not permitted on the land.
 - (c) You must not use any caravan, tent or other shelter on the land as a place of residence.
 - (d) You must not use any vessel moored to the land as a place of residence.
 - (e) You must not allow any vehicle, caravan, vessel or trailer to be permanently parked or slipped on the land without our prior written approval.
 - (f) You must not place any tent, vehicle, caravan, vessel or trailer on any area between the dwelling and a Marina lagoon or the Marina basin.
 - (g) You must not allow the land to become or to remain untidy.
 - (h) You must not allow rubbish or weeds to accumulate on the land.
 - (i) You must not allow any landscaping or vegetation on the land to die or fall into or remain in a state of disrepair.
 - (j) You must not cut down or lop any vegetation on the land which exceeds 1 metre in height without our prior written approval.

However, this does not apply to cutting down or lopping required of you to comply with your legal obligations.
 - (k) You must not make any claim against us for the cost of (or for contribution to the cost of) erecting a fence between the land and any land of ours.

You indemnify us against any such claim.

- (l) You must not allow any damaging objects, noxious or toxic material, or any wastewater (other than stormwater directly from a roof) to be put into, or to drain into, any Marina lagoon or the Marina basin.
- (m) You must not keep any animals on the land except a domesticated cat (maximum of one), or domesticated dogs or birds, that are kept under control at all times.
- (n) You must not permit any vessel to be on the land or moored to the land unless all halyards or rigging on the vessel are tied down.

You must not allow any mast or rigging noise to come from such a vessel.

- (o) You must not carry out any smelly or noisy repairs or alterations to any vehicle or vessel on the land or moored to the land.
- (p) You must not draw water from a Marina lagoon, the Marina basin, or the River Murray.
- (q) You must not use non-organic fertilisers on lawns or gardens.

Water and sewer

16. You must not allow any water supply or sewerage systems to be installed or to be used on the land other than in accordance with the rules in this clause and the following clauses.

You must ensure that any water supply and sewerage systems on the land are constructed in accordance with the standards and specifications issued under the *Waterworks Act* and the *Sewerage Act*.

You must not allow them to be constructed unless you ensure they are suitable for connection to the Marina's water supply and sewerage systems.

17. If you request, we will connect any development on the land to the Marina's water supply and sewerage systems.

If we demand it, you must permit us to so connect any such development.

18. Regardless of whether such connection happens, you must pay us availability fees for the availability of the Marina's water supply and sewerage systems.

19. When such connection happens, you must pay us a connection fee.

The fee will include all our costs of connecting the development on the land to the Marina's water supply and sewerage systems.

20. After such connection happens, you must pay us usage fees for the use of the water supply and sewerage systems.

You must not use the water supply system or the sewerage system unless you have paid all availability fees, connection fees and usage fees that are due and payable.

21. (a) The above availability and usage fees will be as reasonably set by us.

Generally, they will be calculated as if the land was a deep drainage parcel of land in the District Council of Victor Harbor and rated for that purpose by S.A. Water.

- (b) We will bill you once each quarter for the above availability and usage fees.

You must pay them within 7 days of billing.

If you do not, we may, without limiting any of our other legal rights, disconnect the land from the Marina's water supply and sewerage systems. We also have a right to impose a late payment fee.

22. When connecting the water supply to any development on the land, we will install a water meter.

Once the water meter is installed -

- (a) you must keep it in good operating condition at your cost
 - (b) you must not tamper with it or remove it or cause it to have an incorrect reading
 - (c) you must ensure that all water used on the land is supplied through the meter (unless from a rainwater tank located on the land) and
 - (d) you must allow us access onto the land to read it.
23. You must not connect any pump, pressure booster or similar device so as to affect the Marina's water supply system.
24. You must not use any water supplied in the operation of a vessel moored to the land.
25. You must not use the water supply and the sewerage systems for any purpose other than the purposes for which they were designed.
26. You must not allow stormwater, roof water or damaging objects or noxious or toxic material to enter the water supply system or the sewerage system.
27. You must allow us access to the land (including any dwelling) for the purposes of inspection, maintenance, repair or replacement of the Marina's water supply or sewerage systems.
28. We must maintain the Marina's water supply and sewerage systems to reasonable standards.

However, we are not responsible for any failure of the water supply or sewerage systems to properly operate, including without limiting generality any cessation of water supply (intermittent or otherwise), lack of water pressure, poor water quality or blockage or stoppage of the sewerage system.

We are not liable to you for any inconvenience, loss or damage due to any such failure.

29. If we transfer, assign or lease the water supply system or the sewerage system or both to any authority or government agency, we are released from our obligations under this encumbrance relating to those systems.

Maintenance of any embankment and rip rap walling

30. The following rules apply if the land is a waterfront allotment. You must not breach any of the rules.
- (a) You must not alter in any way the shape of the embankment or the rip rap walling (that is, any embankment and rip rap walling in the vicinity of the water's edge).
 - (b) You must not permit the embankment or the rip rap walling to be in disrepair or to fall into disrepair.
 - (c) You must allow us access onto the land for the purpose of inspecting the embankment and rip rap walling.
 - (d) If we are of the opinion that any embankment or rip rap walling is in a state of disrepair we may, by written notice to you, require you to carry out repair or maintenance at your expense.

The notice must specify the nature of such repair or maintenance work.

- (e) You must carry out such repair or maintenance work within 28 days of service of the notice.

Or such lesser period specified in the notice, if the repair or maintenance work is required as a matter of urgency.

- (f) If you do not carry out the repair or maintenance work specified in the notice in a satisfactory manner within the time required above, then we may carry it out.

You must give us access onto the land to carry it out.

The cost to us of carrying it out is payable by you to us on demand.

Notice to Rectify Breach

31. We can enter the land at any time for the purpose of inspecting the land to determine whether any of your obligations under this encumbrance have been breached. You must not do anything to obstruct or hinder our entry or inspection.
32. If we are of the opinion that there has been a breach of any of your obligations under this encumbrance (whether by you or by someone else), we may, by written notice to you, require you to remedy the breach.

The notice must specify the nature of the work required to remedy the breach.

33. You must remedy the breach within 28 days of service of the notice.
- Or such lesser period specified in the notice, if work is required as a matter of urgency.
34. If you do not remedy the breach in accordance with the notice in a satisfactory manner within the time required above, then we may carry it out.

If the breach relates to your obligations concerning the water supply and sewerage services, our rights include the right to disconnect either or both of those services.

You must give us access onto the land to carry out the required work.

The cost to us of carrying it out is payable by you to us on demand.

Marina works by us

35. You acknowledge that the land forms part of a large marina and residential development which is currently under construction.
36. In carrying out further construction within the Marina, we will make reasonable efforts to minimise dust, noise, road diversions and other inconveniences to you.
37. However, we are not liable to you for any such inconvenience, or for any loss or damage caused to you by any such construction.

Statutory provisions also apply

38. The provisions of the *Law of Property Act* and the *Real Property Act* relating to encumbrances apply to this encumbrance.
39. They include, amongst other rights and obligations -
- (a) an obligation on you to keep all improvements on the land in good repair
 - (b) a right of ours at all convenient times to enter the land to inspect the state of repair of such improvements
 - (c) an obligation on you to pay the rent charge at the time and in the manner set out in this encumbrance
 - (d) the right of a subsequent mortgagee or encumbrancee to redeem this encumbrance
 - (e) a right of ours to sell the land if you default in payment of the rent charge or in observing your obligations expressed or implied in this encumbrance
 - (f) a power of ours, if you default in payment of the rent charge, to enter and take possession of the land or bring an action for recovery of the land, or to distrain the goods of the tenant or occupier of the land.

Power of sale of the land

36. Notwithstanding s.136 of the *Real Property Act*, you agree that we may, if we exercise our power of sale, require the purchaser of the land to accept the sale of the land subject to an encumbrance in the same terms as this encumbrance.

Your obligations on transferring the land

40. You must not sell or transfer the land except subject to this encumbrance.
41. Unless we tell you otherwise in writing, you must cause the prospective purchaser or transferee to execute in our favour an encumbrance substantially in the same form as this encumbrance.

You must also cause that encumbrance to be registered immediately after the transfer of the land to the purchaser, and before any other interest in the land is created.

42. If you cease to be a registered proprietor of the land, you must tell us the name and address of any new proprietor.

Once you do so, you will no longer be liable to pay us the rent charge.

43. The covenants in this encumbrance only bind the registered proprietor of the land for the time being.

But our rights are preserved against any former registered proprietor in relation to -

- (a) any breach of this encumbrance which occurred while that person was the registered proprietor and
- (b) any breach of that person's obligations on transferring the land.

Waiver and assignment

44. We may, in our absolute discretion, waive compliance with any development guidelines, or with any of the requirements of this encumbrance.
45. We may modify, waive or release any of the covenants in this encumbrance.
46. We may also modify, waive or release any of the covenants in any encumbrance relating to any other land in the Marina.

Such modifications, waiver or release do not release you from any covenants in this encumbrance.

No warranty is given that any encumbrance relating to any other land in the Marina is in the same terms or has the same effect as this encumbrance.

47. A party's action, or lack of it, on any disobedience of this encumbrance by the other does not affect the party's rights if the other -
- repeats or continues the disobedience or
 - disobeys this encumbrance in another way.
48. No waiver is effective unless in writing signed by our authorised officer.

Assignment by us

49. We may transfer or assign our rights under this encumbrance.

Severance of invalid clauses

50. If any clause of this encumbrance is void or unenforceable then it must be read down so that it is not void or unenforceable.
51. If it cannot be read down, it must be severed (that is, treated as if cut out).
52. The rest of this encumbrance is not affected if any clauses are read down or severed.

Payments

53. The costs incidental to the preparation of this encumbrance, and the stamp duty and registration fee on it, must be paid by you.
54. You must also pay us any costs we incur as a result of any breach of this encumbrance by you or your employees, agents, contractors or invitees.
55. Unless otherwise expressly stated, any GST payable in respect of any fees, costs or expenses payable, or goods or services provided, under this encumbrance or in respect of the land, must be paid by you.

How notices may be given

56. All notices (which includes approvals or demands) must be in writing.
57. All notices must be given to the other party.
58. Notices can be given in person.
59. Notices can also be left at the other party's address on page 1, or at the other party's last known address.
60. Notices can also be sent there by post, but they must be correctly addressed and posted.
61. Notices can also be given to you by being left at, or sent by post to, the land.
62. If posted, a notice is treated as given the next business day after posting.
63. If the party has a facsimile number, a notice may be sent by facsimile transmission to that facsimile number.

In that case, the notice is treated as given when the sender's facsimile machine confirms that the transmission has been successfully completed.
64. Any notice may be signed by a party, or any person that party authorises to sign it.

DATED THE

DAY OF

2000

EXECUTION

SIGNED by the said)

)

in the presence of)

.....

.....
Signature of Witness - Signed in my presence by the
Encumbrancer who is either personally known to me
or has satisfied me as to his/her/their identity

.....
Print FULL Name (BLOCK LETTERS)

.....
Address

.....
Business Hours Telephone No

SIGNED by the said)

)

in the presence of)

.....

.....
Signature of Witness - Signed in my presence by the
Encumbrancer who is either personally known to me
or has satisfied me as to his/her/their identity

.....
Print FULL Name (BLOCK LETTERS)

.....
Address

.....
Business Hours Telephone No

LANDS TITLES REGISTRATION
OFFICE
SOUTH AUSTRALIA

MEMORANDUM OF ENCUMBRANCE

FORM APPROVED BY THE REGISTRAR GENERAL

BELOW THIS LINE FOR AGENT USE ONLY

CERTIFIED CORRECT FOR THE PURPOSES OF THE REAL PROPERTY ACT 1886 <hr style="width: 50%; margin: auto;"/> Solicitor/Registered Conveyance/Encumbrancee

Series No.	Prefix
	E

AGENT CODE

Lodged by:

Correction to: **LYNCH & MEYER** **MSLM**

BELOW THIS LINE FOR OFFICE USE ONLY

Date	Time		
FEES			
R.G.O.	POSTAGE	NEW C.T.	
\$84.00			

TITLES, CROWN LEASES, DECLARATIONS ETC. LODGED WITH INSTRUMENT (TO BE FILLED IN BY PERSON LODGING)

1.
2.
3.
4.
5.

Assessor

PLEASE ISSUE NEW CERTIFICATES OF TITLE AS FOLLOWS

1.
2.
3.

CORRECTION	PASSED
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DELIVERY INSTRUCTIONS (Agent to complete)
PLEASE DELIVER THE FOLLOWING ITEM(S) TO THE UNDERMENTIONED AGENT(S)

REGISTERED	
REGISTRAR-GENERAL	

ITEM(S)	AGENT CODE