



The Hon Diana Laidlaw BA MLC

MINISTER FOR

■ TRANSPORT AND URBAN PLANNING ▲ THE ARTS ■ THE STATUS OF WOMEN

Roma Mitchell House
135 North Terrace
Adelaide

PO Box 8245
Station Arcade Post Shop
South Australia 5000

Tel (08) 8303 0940
Int 616 8303 0940
Fax (08) 8303 0949

minister@adelaide.sa.gov.au

Mr G Whitbread
Chief Executive Officer
City of Charles Sturt
PO Box 1
WOODVILLE SA 5011

City of Charles Sturt			
File No.:			
Doc No.:			
RECEIVED 29 JAN 1998			

REFERENCE:
98pln0007.doc
ms/w

Dear Mr Whitbread,

I refer to the Freedom of Information request submitted by Mr Michael Luscombe on behalf of Council for release of the Coast Protection Board and the Development Assessment Commission reports on the West Beach Boat Launching Facility.

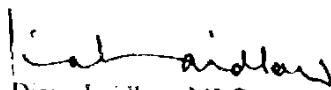
The reports are attached.

You will appreciate that these reports were prepared as part of the ongoing detailed design and assessment of the project. Both the Board and Commission raised a number of matters requiring more detailed investigation. These matters were addressed in conditions I imposed as part of the development approval for the project, and have been the subject of further work within Government.

In addition, you will be aware that there have been important design changes arising from consideration of the project through the Parliamentary Public Works Committee assessment. In particular, further work has been undertaken on sand management and visual impact. The Development Assessment Commission has recently received an application under Section 49 of the Development Act for design variations arising from the Parliamentary assessment. I anticipate the Commission will report to me shortly on these design changes.

As implementation of the project proceeds, detailed consideration is being given to all of the issues raised through both the development assessment and Parliamentary debate process. I have been advised that the Project Director in the Department of Administrative and Information Services, Mr Rod Hook, is willing to keep Council informed. Mr Hook can be contacted on telephone 8216 8474.

Yours sincerely


Diana Laidlaw, MLC

MINISTER FOR TRANSPORT AND URBAN PLANNING

27.1.99

TO THE MINISTER FOR HOUSING AND URBAN DEVELOPMENT

**DEVELOPMENT ASSESSMENT COMMISSION REPORT FOR A BOATING FACILITY
AT WEST BEACH**

SUMMARY :

The MFP Development Corporation, on behalf of the Minister for State Development has lodged a development application to establish a boating facility, including breakwaters, a boat launching and car parking facility at West Beach.

The proposal is Crown Development under Section 49 of the Development Act.

The Development Assessment Commission considers that the proposal is a suitable recreation facility for this site, in land use terms. The proposal is broadly consistent with the policies of the Development Plan, subject to resolution of a number of issues which were raised by relevant Government agencies outlined in the recommended conditions of approval. These issues include sand management to provide an effective sand bypassing of the facility, water quality on the intake pipe of the SA Aquatic Sciences Centre at West Beach, public access along the beach and landscaping.

The Commission resolved at its meeting on 23 September 1997, to recommend that you grant Development Approval to the application, subject to the conditions. This is outlined in the recommendation of this report.

PROPOSAL :

The proposal is to establish a boating facility, including :

- a main breakwater which is offshore , i.e. 50m west of the existing sea wall
- a boat ramp on the main breakwater
- a basin between the breakwater and the beach
- a jetty for vehicle and pedestrian access linking the shore to the main breakwater
- pedestrian access is maintained along the beach (under the proposed jetty)
- a smaller island breakwater to the north of the main breakwater
- secure boat storage
- trailer parking
- grassed overflow parking
- upgraded access from Military Road into Barcoo Road

The proposal described above, is the first stage of the development. The second stage, which is not in this application, comprises boat sales, display, maintenance, clubrooms, rigging area and parking; all of which is proposed immediately north of stage one.

The West Beach site was selected for the construction of a new boat ramp to replace the existing boat ramp, two kilometres to the south at Glenelg North. This boat ramp will be removed as part of the Holdfast Shores Development. The West Beach site was selected as being close to the Glenelg boat ramp. It will continue to provide launching facilities to serve the central metropolitan coast. The site is already an established boating venue and is home for the Sea Rescue Squadron and the Holdfast Bay Yacht Squadron. The site is also remote from residential areas, has better vehicle access than the Glenelg boat ramp, and it has ample space available for redevelopment. and car parking.

LOCATION :

The site is at the shore, adjacent to Barcoo Road, West Beach. Barcoo Road is a "no through" public road linking Military Road to the shore. The site is between the Glenelg Sewage Treatment Works and Marineland Holiday Village (owned by West Beach Trust).

There are no existing buildings on the site of stage one. An existing yacht club building and a sea rescue squadron building are immediately north of the site of the current application. These buildings are on the site of stage two.

The beach at the site is quite narrow. A rock sea wall adjoins the beach. About 200 metres north of the site, the sea wall ceases and the beach becomes wider.

The site of stage one is partly on the Barcoo Road reserve, partly on vacant land in the Glenelg Sewage Treatment Works, partly on the public beach and partly below low water mark. The site adjoins existing sand dunes but does not encroach into them.

DEVELOPMENT PLAN PROVISIONS :

The proposed boating facility is consistent with the Development Plan amendment entitled "Glenelg (City), West Torrens (City) and Land Not Within a Council Area (Metropolitan) Glenelg - West Torrens Foreshore and Environs".

This Development Plan amendment was authorised on 4th September 1997.

This Development Plan amendment proposes to change the zoning applying to the whole of the site of the proposed boating facility including the proposed off shore breakwater to Recreation (West Beach) Zone and the Boating Policy Area (Area 5). The site is also defined on the concept plan in the proposed Development Plan amendment for boat launching and car/trailer parking.

The proposal is a "merit" type of development in the Development Plan, i.e. it is neither complying nor non-complying development in these two zones.

The policies applying to the site, outlined in the Development Plan amendment, envisage a focus for boat launching and related facilities at this site and also provide guidance for standards on public access, environmental protection, traffic and design for these facilities.

The zoning in this Development Plan amendment replaces a Coastal 1 Zone and a Coastal 2 Zone which applied to the site of the proposed boating facility before 4th September 1997. The proposal is broadly consistent with these policies which no longer apply to the site.

There are metropolitan wide and council wide objectives and principles which seek conservation of the coast, public access along the coast, protection of natural coastal processes, tourist and community facilities in appropriate coastal locations, prevention of pollution of the coast and marine ecology, prevention of storm damage and erosion, and appropriate development in nodes and not in a scattered linear form.

DESCRIPTION OF THE PROPOSAL :

The main features of the proposal are :

Launching Facility

A new off shore harbour is proposed to provide all weather safe launching of small boats. The launching ramp and standing area will be connected to the shore with a concrete jetty structure to maintain unimpeded pedestrian access along the beach at all times.

Short Term Trailer Parking

A sealed parking area for 80 boat trailers and cars is proposed at the head of the jetty. A grassed overflow area for parking 265 trailers is available to the south, with future expansion capability of up to an additional 100 rigs. The total trailer parking capacity of the site is 445 rigs.

Secure Boat Storage

A sealed secure boat storage enclosure for 70 boats is proposed. The enclosure will be fenced and lockable. Appropriate landscaping will be developed to the edges.

Boat Wash Down

A wash down facility will be provided adjacent to the access/egress road. The facility will comply with SA Water and EPA requirements for arresting pollutants prior to discharge into the sewerage system.

Landscaping and Other Finishes

The site will be extensively landscaped with shrubs and small trees. These will be salt tolerant hardy species capable of binding the soils whilst requiring low maintenance.

Direction signage, landscaping and paving is proposed at the intersection of Barcoo and Military Roads.

Barcoo Road, the access road into the site will be edged and planted with taller species, and maintain good visibility for traffic flows. The secure boat storage facility edges will be landscaped.

Landscaping will be developed along edges and borders and in available local areas around buildings.

External site lighting will be provided to the sealed areas and security zones.

Fencing, flag poles, directional and identification signage will be developed during the design process to meet security, safety and promotional requirements.

Existing pedestrian and cycle paths will be maintained along the foreshore.

Traffic

A new sealed access road is proposed along Barcoo Road and an upgraded junction with Military Road is proposed.

A maximum peak hour traffic volume on the access road of approximately 530 vehicles, two way is estimated by the proponent. The estimated existing traffic on Military Road is 8,000 vehicles per day. The peak hour volume can be estimated to be in the order of 10% of the daily traffic, that is 800 vehicles and is two way.

Internal roadways for circulating traffic are proposed to comply with recognised engineering standards for road width and turning space. The roadways are all two way, are generally greater than 7m wide, and 10m wide where car/trailer parking lane is also provided. This satisfies the minimum requirements for car/trailer parking facilities.

Line marking, sign posting and speed humps will need to be included to provide for safe traffic movement throughout the facility.

Parking for cars and trailers

The following is proposed -

- 80 marked car/trailer spaces
- 65 overflow car/trailer spaces on grassed area
- 100 future overflow car/trailer spaces
- 70 boat storage spaces in secure area

Storm water will be drained to an interception pit for treatment from parking areas and other hard surfaces.

The design of parking areas will comply with relevant Australian standards.

Boat Launching Area

Access to the boat launching area is via an elevated jetty structure. The boat launching area (50metres x 45metres) provides adequate turning room for car/trailer movements and allows for up to four boats to be launched at one time. The ramp into the water will be graded at a slope of between 1 in 7 and 1 in 9 with a preferred gradient of 1 in 8.

The boat launching area will be constructed on granular fill material using suitable material excavated from the on shore site works with balance coming from commercial quarries.

The ramp will be constructed from concrete with a ribbed surface to provide traction for vehicles. It is proposed to cast in situ the upper part of the ramp above low tide with the underwater section comprising pre-cast concrete slabs. The side slope will clearly indicate the edge of the ramp.

Timber deck pontoons will extend from a concrete plinth at the top of the ramp. The pontoons will be held in position by a series of piles driven into the sea bed.

A manoeuvring and rigging area at the head of the ramp will be asphaltic concrete paving with kerbs around the perimeter. The access road off the jetty will be widened to provide for additional queuing. The turning circle is adequate for large trailers and complies with the marina guidelines.

Permanent moorings will be provided.

Ramp Design

The ramp and the harbour to protect the ramp have been designed to cater for trailered craft only. Up to 50 users per hour or over 400 users per day can be expected. The ramp and harbour will cater for power boats and yachts up to ten metres long. A rigging area for up to seven boats has been provided at the head of the ramp clear of the manoeuvring area. The ramp design is based on the Australian Standard guidelines for design of marinas. The ramp will be on a 1 in 8 gradient with the top of the ramp at RL+2.1 metre and the toe at RL-2.4. The harbour depth will be RL-3.0.

Harbour Design

The harbour is located over a naturally occurring offshore sand bar which is an extension of the Glenelg Harbour sand bar.

The entrance channel will have a nominal width of 50 metres at RL-3.00. This is in excess of the marine guidelines. Approximately 50 metres has been allowed between the end of the pontoons and the breakwater for the manoeuvring of boats to and from the ramp. Navigation lights to marine safety standards will be provided.

Seaweed in the harbour will be managed in the same way as the rest of the coastline. Occasional sand dredging will be required in the harbour.

Main Break Water

The crest levels of the breakwater have been selected to reduce wave over topping. At the head of the ramp the crest level is RL+6.0 to provide greater protection to the ramp and pontoons from the south-west storms. The remainder of the breakwater will be a RL+5.0.

For the sizing of the rock armouring on the West Beach breakwater, the 100 year event was selected as the design event, consistent with the Glenelg Harbour development. The facility will be an "all weather" facility.

Access Jetty

The jetty will be two 3.5 metres lanes wide with a 2.0 metres footpath. The structure will comprise a in situ concrete head stock. The deck level will generally be at RL+6.0 with the western end ramps ramping down to suit the launching ramps approach road gradients.

The deck level RL+6.0 will enable sand trucks to travel underneath and will give about four metres clearance to the nominal beach level of RL+1.0.

The jetty will be designed to carry one standard Austroad design vehicle on any span. Normal road paving will be provided along the jetty and at the head of the ramp.

Northern Offshore Breakwater

A near shore breakwater is proposed at the northern end of the harbour to form an accretion of sand/sediment extending from the original coastline to the near shore breakwater which will prevent the near shore moving sand from accreting in the harbour near the boat ramp. This near shore breakwater is at right angles to the shore.

Sand Management

The consultants of the proponent estimate that approximately 40,000 cubic metres of sand will need to be bypassed annually from the south to the north around the offshore breakwater.

Sand bypassing will be carried out primarily by trucking sand over the winter months. The most convenient and least impact arrangement will involve trucks travelling directly along the beach.

The source area for sand to be bypassed will extend over a length of some 400 metres and the sand will be taken from between the low and high water marks. The sand will be deposited at least 200 metres north of the northern offshore breakwater and spread along the beach for a distance of at least 200 metres.

Details of sand trucking would be specified in any contractual arrangements established between the Government and the contractor as part of the tendering and contract process.

Construction Phase

Construction activities will impact upon beach users in the vicinity of Barcoo Road. Provision will be made to enable access to be obtained across the site for people wishing to walk between West Beach and North Glenelg. Hours of operation will be 7.00 a.m. to 5.00 p.m. six days a week. Agreements are being negotiated with the Yacht Club and Sea Rescue Squadron. Trucking routes for construction materials will be specified to minimise impacts on residential areas.

Availability of the site for the proposed development

The application is for public works to be undertaken on Government land. SA Water, which owns the southern part of the site, is considering either leasing or transferring ownership to facilitate the project. West Beach Trust will receive the benefit of the new facilities. Leases for boating club activities are negotiated with the West Beach Trust. The land will be available for the proposed development.

COUNCIL REPORT :

Vest Torrens Council supports the proposal, subject to -

Submission of further details by the proponent regarding the proposed Sea Rescue Squadron and Yacht Club facilities, and commercial boating maintenance and sale facilities, including the form, scale and siting of these facilities to ensure that there is not conflict with the recreational/open space character of the locality.

Detail on paving, drainage and landscaping treatments as part of the application prior to approval.

The Council proposal to close and sell Barcoo Road for incorporation into the development site.

Council advice that it will not assume responsibility for sand management associated with the boat harbour and landing facility.

The Council request that alternative sustainable methods of sand management to trucking of sand should be explored in conjunction with the development, and in the future as technology and knowledge of sand management techniques develops.

- Details of pedestrian access to the boat harbour require resolution.

COMMENTS BY GOVERNMENT AGENCIES

Coast Protection Board

The main points in the submission by the Coast Protection Board are as follows:

The proposal to construct boating facilities at West Beach conflicts with beach processes at the site by interrupting the natural long-shore movement of sand. As a consequence artificial bypassing of sand will be required in perpetuity. It is understood that Government has made a commitment to fund this work and has identified that there are opportunities for cost recovery.

A description of the method and impacts of sand bypassing is not provided in the planning application. These impacts would include the impact of truck traffic on recreational use of the beach during sand bypass trucking and the disturbance of boating during operational dredging of the harbour.

The Board considers that the following issues will require resolution :

- access to the beach by truck for sand carting and potential for conflict with beach users.
- an onshore route for trucks should be considered.
- any net lockup of sand within the altered beach shape should be counteracted with a replenishment of the dunes area with sand from a source external to the beach system.
- there are uncertainties surrounding the shape and variations in the beach formed behind the breakwater structures.
- the site nominated as a possible source of beach sand also contains a large volume of fill material which is likely to be unsuitable for placement on the beach.
- sand sourced from the offshore bar is part of the beach system. The Board does not support the use of this sand in calculating sand volumes.
- the northern part of the structure is proposed to be built quite close to the beach, with a likely result of greater lockup of sand in the harbour than has been anticipated.
- facilities for occasional mooring of a dredge within the harbour should be considered.
- the geotechnical investigations has not identified the likely presence of beach stones at West Beach.
- weather conditions may add limitations to launching some craft.
- there are a number of significant discrepancies and inconsistencies between the sand management concept and project design and costing parts of the Sand Management report.

In summary, the Board recommends that :

1. Ownership and operational responsibilities be determined and that those bodies provide input to the design and operational arrangements before approval is granted.
2. Further consideration be given to increasing the flexibility of sand trucking arrangements.
3. The recommendations of the consultant for further modelling of the shoreline be followed through and that the Board be advised of any implications of this further study.
4. The salients be constructed from clean sand.
5. There be no net loss of sand from the active beach system.
6. The proponent manage the facility, including sand management for a period of at least 3 years following completion of the structure to establish suitable management and operation practices and confirm the design adequacy. That the proponent provide funding for any ameliorative works necessary.
7. The uncertainties in estimating the cost of management of the harbour, being principally the sand bypassing costs of the project be recognised and which would have to be borne by the Government.
8. An assessment be made of the capability and cost implications of operating the proposed facility with a 0.3 metres sea level rise and adaptation of the facility for operation with a sea level rise of 1.0 metre.

South Australian Research and Development Institute (SARDI)

SARDI has expressed concerns on the potential impacts from dredging on the marine biota and the water quality in the vicinity of the South Australian Aquatic Sciences Centre sea water intake pipes that could result from the proposed West Beach boating facility. The intake pipes are situated about 500 metres north of the proposed boating facility.

SARDI has recommended that :

1. In the event that a sediment plume, in the immediate vicinity (within 100m) of the SARDI intake, directly resulting from the construction of the boating facility, there should be an immediate cessation of construction activities and discussions between the proponent and nominated officers of SARDI take place in order to determine a method for alleviating the hazard.
2. Sediment plume from the construction of the breakwaters and the dredging and disposal operations be monitored and recorded by the proponents. The distribution of the plume could be monitored on a daily basis from the top of the sandhills, or a higher vantage point. As an environmental operational regime it is suggested that in the event of a plume (evident in the sea water discolouration), from either activity, extending along the shore to the location of the sea water intake/outlet pipelines and for a distance beyond 750 m offshore, that is beyond the

second marker buoy offshore on the pipeline, that the operation causing the plume should cease forthwith and discussions be held with nominated SARDI officers with respect to the quality of sea water being used at the Aquatic Sciences Centre. Following these discussions a decision on whether to continue the particular construction activity or wait for the plume to disperse should be made.

Department of Transport

The main points made in the submission from the Department of Transport are as follows :

The boat launching area should be designed in accordance with AS 3962-1991, *Guidelines for Design of Marinas*. It is unlikely that anything larger than a trailer/sailer with retractable keel would be launched there.

It would be appropriate to review the depth of water at the toe of the ramp in view of this facility being used for the launching of trailer/sailer vessels as it barely meets the minimum requirements and at extreme low tides. The transition slope from the toe of the ramp down to the harbour bed appears excessively steep and should be reviewed.

North-westerly weather could be a problem and it would then be up to the owner of a vessel to bear the risk if boats are launched in adverse conditions.

Safe passage should be provided for vessels entering/leaving the breakwaters and adequate/recognised navigation lights should be placed at the entrance to indicate the extremities of the breakwaters.

No reference is made on which organisation will be responsible for the ongoing sand management of the proposal. The applicant should therefore be requested to clearly identify who is to be responsible for funding and undertaking the ongoing management and maintenance responsibilities.

Provision should be made through the site for unrestricted pedestrian access to facilitate the Government proposal of the continuous recreational path along the coast from Outer Harbor to Seacliff.

Environmental Impact Assessment Branch

Many aspects of the assessment undertaken for the concept of a Boat Launching Facility at West Beach as part of the EIS process, are relevant to the current proposal.

In summary, the current proposal resolves several of the main issues identified in the "Second Amendment to the Assessment Report for the EIS (as amended) on the development proposal for the Glenelg Foreshore and Environs - Holdfast Quays Proposal" (MHUD, 1997), namely :

- continuous pedestrian access along the metropolitan beach is preserved
- the seaward projection of the main breakwater is sufficient to ensure that minimal natural sand bypassing should occur, although this depends on adequate bypassing by trucks
- the width of the access channel has been increased to 50m
- the northern breakwater should help to reduce sand deposition within the harbour (but may need to be extended later, depending on performance).

A number of key issues remain however, and some new ones arise, as follows :

- the breakwaters and access jetty will be highly visible along the beach for some distance, with even greater visual impact when vehicles and boats are present
- construction and operation of the facility may impact on water quality at the SA Aquatic Sciences Centre intake pipe to the north
- the development will necessitate a commitment to flexible funding for sand management in perpetuity
- the trucking of sand around the facility will at times impact on beach amenity for a distance of up to 400m to the north and 400m to the south of the development
- ongoing monitoring of the condition of the beaches between North Gleneig and north of the facility should be undertaken to assess sand lockup and ensure sufficient sand is present to protect the dune system
- an Environmental Management Plan (EMP) should be developed for both the construction and operation of the facility
- a further consideration of safety for pedestrians and motorists at all times of day is warranted.

Federal Airports Corporation (FAC)

The FAC was consulted on the proposal and has made no comments.

ASSESSMENT

The Development Assessment Commission considers that the proposed boating facility at West Beach is consistent with the zoning policies which now apply to the site in the recently authorised Development Plan amendment. This amendment envisages a boating facility of the type and scale proposed in the application at the site. The proposed development is broadly consistent with other relevant Development Plan policies, subject to conditions mainly relating to management of coastal processes.

The Commission is satisfied that the issues raised by Government agencies regarding sand management, water quality and public access can be resolved satisfactorily by conditions of approval in the Recommendation.

The main reasons for the Commission's support of the application are:

1. The proposal is compatible with adjoining coastal recreation development and other nearby land uses.
2. The proposal is remote from residential areas.
3. The proposal has ample space for parking and satisfactory vehicle access.

4. In a metropolitan context, the proposal has reasonable accessibility to a large catchment of boat owners.
5. Continuous pedestrian access for the public along this beach is provided in the proposal.
6. Although the proposal will result in prominent breakwaters and a jetty extending into the sea, and will have a visual impact in this coastal landscape, the proposal is not inconsistent with the type of coastal development envisaged in the Development Plan for this site.
7. Issues raised by Government agencies regarding sand management, water quality, public access and boating navigation can be addressed by conditions of approval and by on-going negotiations and monitoring by the proponent and the relevant agencies. Broad agreement has been reached between the relevant agencies and the Development Assessment Commission on these conditions.

RECOMMENDATION :

The Development Assessment Commission recommends that you grant Development Approval, pursuant to Section 49 of the Development Act, subject to the following conditions :

1. The development proceeds in accordance with the plans and drawings SK20 Revision E dated August 1997, SK C1 Revision C dated June 1997 and SK C6 Revision B dated July 1997, and the reports accompanying the application, except where varied by the following conditions.
2. The intersection of Military Road and Barcoo Road, internal roads in the proposed development and the parking layout is designed in accordance with Australian Standards 2890.1 - 1993.
3. The boat launching area is designed in accordance with Australian Standards 3962 - 1991, Guidelines for Marinas.
4. Consultation is undertaken with the Marine Facilities Section of the Department of Transport :
 - () to review the depth of water at the toe of the ramp as it barely meets the minimum requirements at extreme low tides. The transition slope from the toe of the ramp down to the harbour bed appears excessively steep and should be reviewed.
 - (b) to provide safe passage for vessels entering/leaving the breakwaters and adequate/recognised navigation lights at the entrance to indicate the extremities of the breakwaters.
5. Unrestricted, suitable and safe pedestrian access shall be provided at all times from north to south through the proposed development during the construction and operation of the development.
6. Any sediment plume arising from the construction of the breakwaters and the dredging and disposal operations shall be visually monitored on a regular basis and its extent recorded by the proponents.

7. In the event of a sediment plume (sea water discolouration), directly resulting from the construction of the boating facility, in the immediate vicinity of the intake pipe for the SA Aquatic Sciences Centre, there shall be an immediate cessation of construction activities and discussions between the proponent and nominated officers of SARDI take place in order to determine a method for alleviating the hazard.
8. In the event of a plume, once the boating facility is operational, extending along the shore to the sea water intake pipe and for a distance beyond 750 m offshore, the operation causing the plume shall cease immediately and discussions shall be held with officers of the SA Research and Development Institute regarding the quality of sea water being used at the Aquatic Sciences Centre. Following these discussions a decision on whether to continue the particular activity or wait for the plume to disperse should be made.
9. Consultation is undertaken on an ongoing basis between the proponent and/or the body responsible for the operation of the development and the Coast Protection Board to ensure that any net lock-up of sand within the altered beach shape caused by the construction, is compensated for by replenishing the West Beach dunes area with a suitable source external to the beach system or from the construction site.
10. Only clean beach sand shall be placed on the beach formed between the breakwaters and the shore.
11. Sand from the construction site (from either or both of the onshore or seaward parts) may be used for building up the beach between the breakwaters. If this provides an insufficient volume of suitable sand and other near-shore sand in the vicinity is used (e.g. from an adjacent beach or a near-shore sand bar), then an equivalent volume of sand is to be obtained from a source external to the beach system and placed on the beach fronting the West Beach dunes.
12. The final layout of the onshore parts of the proposal shall not preclude later provision of an onshore route for sand bypass trucking, should trucking along the beach prove impractical or of excessive impact on beach users.
13. An Environmental Management Plan is prepared for the construction and operation of the facility (in a similar way to the Environmental Management Plan required for the Glenelg Patawalonga development).
14. A suitable landscaping plan, to the satisfaction of the agency given responsibility for management of the land based part of the development, is prepared, implemented and maintained.
15. Before any building work is undertaken, the building work shall be certified by a private certifier, or by some person determined by the Minister as complying with the provisions of the Building Rules. (This is required by Section 49 (14) of the Development Act.)

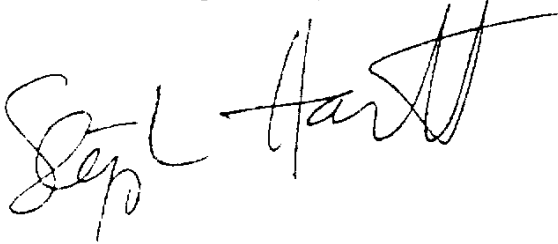
NOTES:

In considering this application, the Commission advises that several important aspects do not fall within the scope of its recommended approval or the conditions. These are brought to your attention.

The Commission has especially noted that the Coast Protection Board has concerns about the reliability of coastal process predictions, about some of the assumptions on which the predictions are based, and about volumes and cost of sand bypassing, and that these concerns have not been allayed by information provided by the consultant. The submission infers that ongoing costs to State Government may be considerably higher than have been indicated by the proponent.

The Board has also expressed concern about responsibility for ownership and operation of the proposed harbour not yet being resolved and has recommended that this occur before operating arrangements and designs are finalised. Because of the uncertainties and the possible need for further ameliorative works, the Board has recommended that the proponent manage the facility, including sand management, for a period of at least three years after completion.

On a question of design and operational detail, the Board has recommended that the harbour be designed to allow for occasional mooring of a floating dredge, as would be used for maintaining the harbour and channel. The Commission has been advised that the lack of safe mooring at the facility could add significantly to the cost of dredging.

A handwritten signature in black ink, appearing to read 'Sep L Hamnett', with a stylized flourish at the end.

Stephen Hamnett
Acting Chairman
DEVELOPMENT ASSESSMENT COMMISSION
010416 COOPERATIVE REPORT - 1810058

September 1997