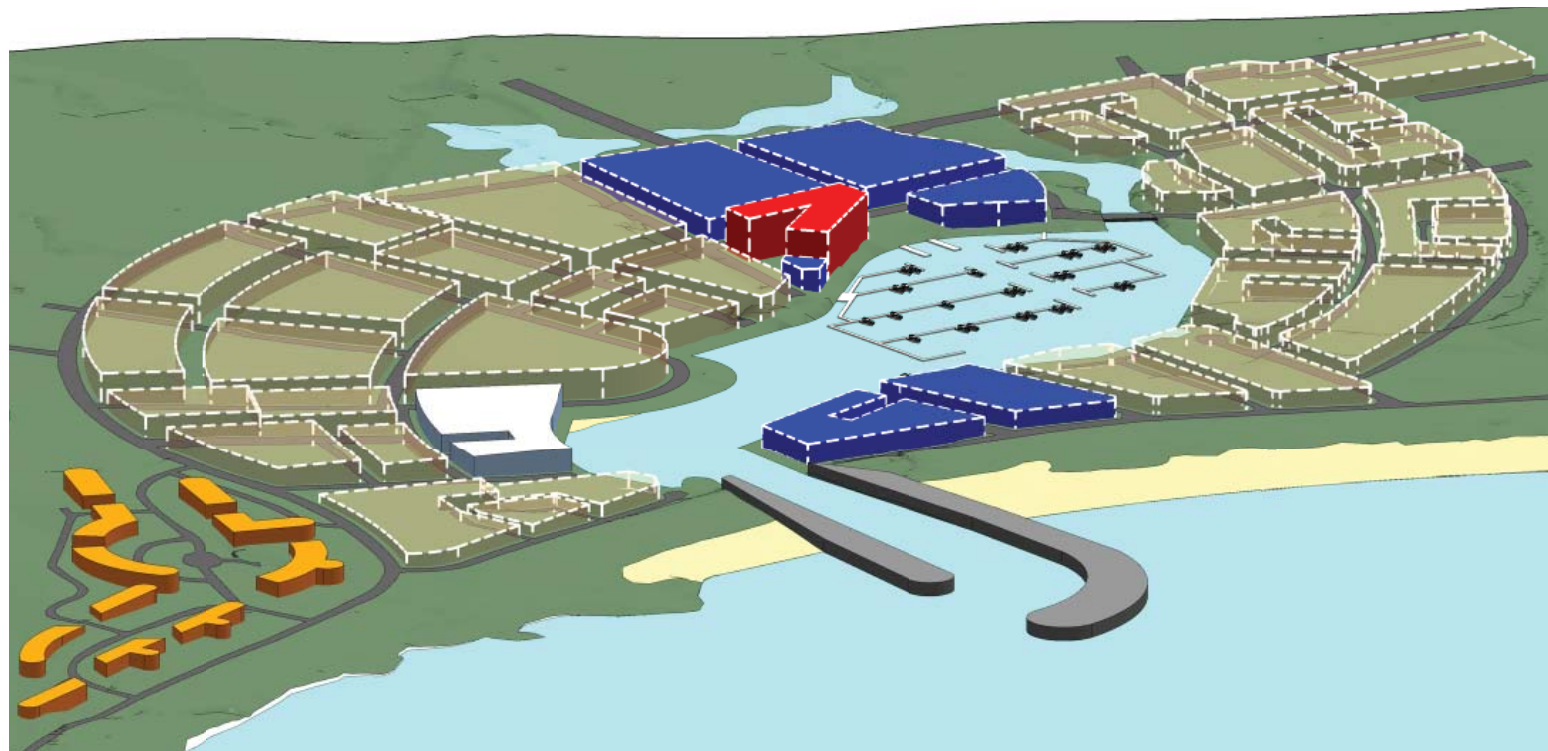




Shell Cove Boat Harbour Precinct

Concept Plan Application and Environmental Assessment



Prepared by LFA (Pacific) Pty Ltd
for
NSW Department of Planning
on behalf of
Australand Corporation (NSW) Pty Ltd
and
Shellharbour City Council




26 February 2010





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	1	Draft # 1 (pdf)	09-05-09		Project Status	Submitted for public exhibition
	2	Draft # 2 (pdf)	30-07-09		Project Director	Alf Lester
	3	Draft # 3 (pdf) for DoP meeting/presentation	15-09-09		Checked by	AL
	4	Draft # 4 (pdf)	12-10-09		Date Issued	
	5	Draft # 5 (pdf)	27-10-09		Issue Type	
	6	Submission to the DoP for the 'test of adequacy'	10-11-09		Client	 
	7	Submission to the DoP for final review before public exhibition	16-02-10			
	8	Submission to the DoP for public exhibition	26-02-10			



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Statement of Validity

Submission of Environmental Assessment

Prepared under Part 75F of the Environmental Planning and Assessment Act 1979

Environmental Assessment Prepared By

Name	Alf Lester
Qualifications	Bachelor of Architecture (Hons), University of NSW, 1964. Dip. Civic Design (Distinction), Edinburgh University, 1967. Fellow of the Australian Institute of Architects. Member of Planning Institute of Australia.
Address	LFA (Pacific) Pty Ltd 4/2 New McLean Street Edgecliff NSW 2027
In respect of	Shell Cove Boat Harbour Precinct - Concept Plan Application Application No. MP07_0027

Applicant and Land Details

Applicant Name	Australand Corporation (NSW) Pty Ltd
Applicant Address	8 Cove Boulevard Shell Cove NSW 2529
Land to be developed	Shell Cove Boat Harbour Precinct
Lot & DP	Lot 8032 DP 1072187, Lot 8100 DP 1082981, Lot 206 DP 857030, Lot 9004 DP1117743 and Lot 30 DP 229374 Boolwarroo Parade, Shell Cove

Environmental Assessment

Statement of Validity	I certify that I have prepared the contents of the environmental assessment in accordance with the Director General's requirements dated 9 November 2007 and that to the best of my knowledge, the information contained in the environmental assessment is neither false nor misleading.
-----------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Signature

Date 26 February 2010

Executive Summary

This Concept Plan Application and Environmental Assessment for the Shell Cove Boat Harbour Precinct is submitted to the Minister for Planning pursuant to Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) and the State Environmental Planning Policy (Major Development) 2005.

The Shell Cove Boat Harbour Precinct covers approximately 100ha and is located immediately south of the existing Shellharbour Village. The precinct is defined generally to the west by the proposed Harbour Boulevard and extends to the high water mark on Shellharbour South Beach.

The former rural land will be developed as the commercial and retail focus of the wider Shell Cove project and will provide supporting land-based facilities for the Boat Harbour and Marina (for which Ministerial Consent has been granted) together with a range of residential and recreational assets including a:

- Commercial/retail mixed use core including a landmark hotel.
- Small mixed use precinct adjacent to the Shellharbour South Beach dunal zone.
- Business park precinct.
- Standard, medium and high density residential development.
- Comprehensive network of open space and wetlands.

The project is being undertaken by Australand Corporation (NSW) Pty Ltd and Shellharbour City Council. Planning and design of the site has been developed as an integral part of the overall Shell Cove Masterplan. Initial planning for the proposed Boat Harbour commenced in 1977.

The Minister has declared the site to be a project to which Part 3A of the EP&A Act applies. Following the submission of a Preliminary Environmental Assessment the Department of Planning (DoP) issued the Director General's Environmental Assessment Requirements (DGRs) on 9 November 2007.

The purpose of this document is to define the project and to address the DGRs including:

- The site and its context.
- Development options.
- Justification for the project taking into consideration any environmental impacts, suitability of the site and whether the project is in the public interest.
- Staged implementation.
- Consideration of relevant statutory and non-statutory provisions.
- Assessment of the potential impacts of the project and a draft Statement of Commitments.

The Boat Harbour Precinct surrounds the Shell Cove Boat Harbour which was granted Ministerial consent on 26 November 1996. The Consent provided for:

- The construction and operation of a Boat Harbour and Marina development and associated facilities.
- The enlargement and enhancement of wetlands at Shadforth.¹
- The deposition of waste material extracted from Shellharbour Swamp in engineered landfill cells adjacent to the Quarry Haul Road (QHR).

A number of Section 96 modifications to the original consent for the Boat Harbour have subsequently been granted by the Minister (see Part 1.3, pp 10-11).

Development Consent has not previously been granted for the Shell Cove Boat Harbour Precinct. However, the site has been an integral component of the planning and design process for the entire Shell Cove urban development area from the earliest stages of the masterplanning process. The proposed form and character of the site is consistent with the Shellharbour Local Environmental Plan 2000 (SLEP) and with the relevant environmental planning instruments, zoning and policies.

The proposed development of the Boat Harbour Precinct is considered environmentally, ecologically and socially appropriate because:

- The broad pattern of land use is consistent with the pattern identified in the 1995 Environmental Impact Statement (EIS) that was submitted to the Commission of Inquiry and which led to the Minister's Consent for the Boat Harbour in 1996.
- It is located immediately adjacent to the approved Shell Cove Boat Harbour and will facilitate the development of land uses ancillary to the Boat Harbour.
- The project will facilitate land uses which will contribute to diversification of the economic base of the Illawarra region in accordance with federal and state government reports and recommendations.
- It is located within the Residential 2(f) Mixed Use Zone under the SLEP. The zone incorporates the following objectives:

- To allow for mixed use residential neighbourhoods to be developed providing for a range of household preferences and needs.*
- To enable the development of a regional boat harbour facility and associated commercial and recreational facilities.*

- The site is a key component of the overall Shell Cove Masterplan which has been planned and designed to integrate with and complement the district and regional land uses.
- The site does not contain any significant environmental, archaeological and ecological constraints and the development of the Boat Harbour Precinct will not adversely affect existing environmental values.
- The detailed traffic assessments and modeling for the wider Shell Cove project have consistently addressed the development of the Boat Harbour Precinct. The arterial network has been designed to provide for the trip generation demands associated with the development of the Boat Harbour Precinct.
- The urban design and scale of the proposed Boat Harbour Precinct is consistent with NSW Coastal Policy (1997) and Coastal Design Guidelines (2003). Generally proposed development is between 2 to 4 storeys in height apart from the landmark hotel which is in the order of 8 to 9 storeys in height.
- The development concept for the Boat Harbour Precinct clearly illustrates the extent and nature of the extensive landscaping works that will form an integral part of the Boat Harbour Precinct.
- Development of the Boat Harbour Precinct will provide for a range of recreation assets and the choice of housing to meet the needs of the local and regional community.
- The Boat Harbour Precinct development will provide for a range of employment opportunities and contribute to the diversification of the Illawarra economy.

In conclusion, the site is considered suitable for the proposals contained in the Concept Plan, and the implementation of the Shell Cove Boat Harbour Precinct Project is consistent with the public interest. Accordingly, the Minister's favourable consideration is sought for this Concept Plan Application.

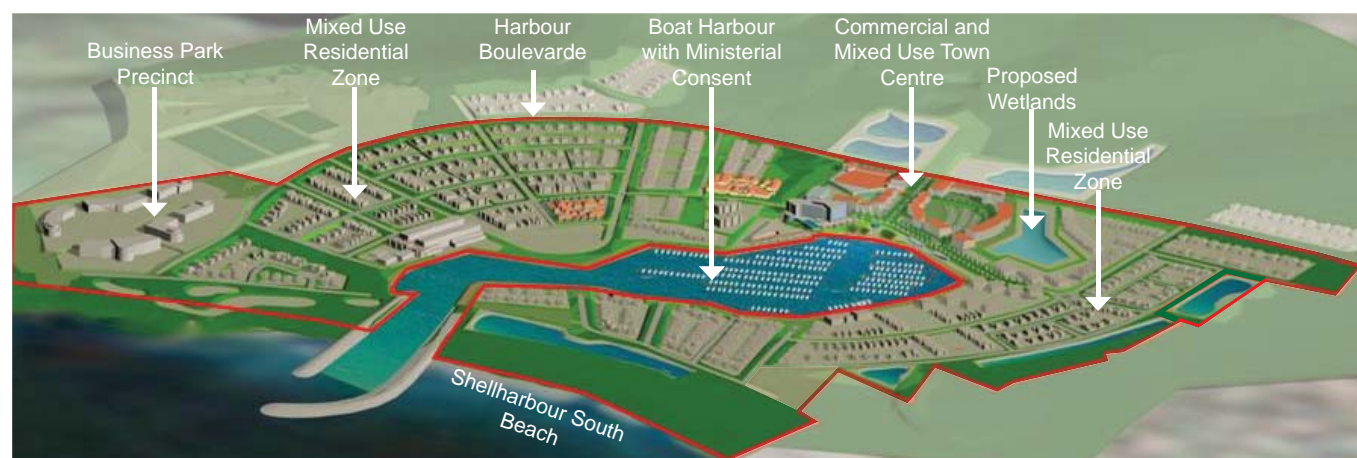


Fig. 01 - Illustrative Aerial View

¹ The Shadforth Wetlands are now known as the Myimbarr Wetlands.

Schedule of Director General's Requirements

Below is a schedule showing the Director General's Environmental Assessment Requirements (DGRs) together with the relevant parts of the report where the requirement is addressed.

General Requirements		Section
The Environmental Assessment (EA) for the Concept Plan Application must include		
1.	An executive summary;	Exec Sum
2.	An outline of the scope of the project including: <ul style="list-style-type: none"> any development options. justification for the project taking into consideration any environmental impacts of the project, the suitability of the site and whether the project is in the public interest. outline of the staged implementation of the project if applicable. 	Part 3 Part 4.2 Part 4.2
3.	A thorough site analysis including constraints mapping and description of the existing environment;	Part 2
4.	Consideration of relevant statutory and non-statutory provisions, in particular relevant provisions arising from environmental planning instruments, Regional Strategies (including draft Regional Strategies) and Development Control Plans. Identify non-compliances and provide justification of departures;	Part 4.3
5.	Consideration of impacts, if any, on matters of national environmental significance under the <i>Commonwealth Environment Protection and Biodiversity Conservation Act 1999</i> ;	Part 4.3
6.	An assessment of the potential impacts of the project and a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures to be implemented to minimise any potential impacts of the project;	Part 5
7.	The plans and documents outlined in Attachment 2;	See Supporting Documentation below
8.	A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading;	Validity Statement
9.	A Quantity Surveyor's Certificate of Cost to verify the capital investment value of the project; and	Appendix P
10.	An assessment of the key issues specified below and table outlining how these key issues have been addressed.	Part 4

The Environmental Assessment must address the following issues:

Key Issues			Section
1.	Strategic Planning		
	1.1	Justify the proposal with reference to relevant local, regional and State planning strategies. Provide justification for any inconsistencies with these planning strategies.	Part 4.4
	1.2	Consider the recommendations of the Shellharbour Local Government Area RetailCommercial Study and Employment Study.	
	1.3	Demonstrate consistency with the Sustainability Criteria set out in the relevant Regional Strategy (including draft Regional Strategies).	
2.	Urban Design, Visual Impact and Sustainability		
	2.1	Demonstrate suitability of the proposal with the surrounding area in relation to bulk, scale, amenity (including noise) and visual amenity having regard to the <i>Coastal Design Guidelines of NSW (2003)</i> and the <i>NSW Coastal Policy 1997</i> .	Part 4.4
	2.2	Address the visual impact of the proposal in the context of surrounding development and relevant mitigation measures. In particular address impacts on the amenity of the foreshore, overshadowing of public reserves, loss of views from public places and cumulative impacts.	
	2.3	Use visual aids such as scale model and photomontage to demonstrate visual impacts. Amelioration of visual impacts through design, use of appropriate colours and building materials, landscape in and buffer areas must be addressed.	
	2.4	Demonstrate intended compliance with primary development controls under SEPP 65.	
3.	Infrastructure Provision		
	3.1	Address existing capacity and requirements of the development for sewerage, water, electricity, waste disposal, telecommunications and gas in consultation with relevant agencies. Identify and describe staging, if any, of infrastructure works.	Part 4.4
	3.2	Address developer contributions, and provide the likely scope of any planning agreement with Council Government agencies.	
4.	Traffic and Access		
	4.1	Prepare a traffic impact study in accordance with Table 2.1 of the RTA's Guide to Traffic Generating Developments which addresses, but is not limited to the following matters: <ul style="list-style-type: none"> The capacity of the road network to safely and efficiently cater for the additional traffic generated; Access to and within the site; Indicative servicing and parking arrangements; Intersection site distances; Connectivity to existing developments; Impact on public transport (including school bus routes); Provision of access for pedestrians and cyclistst to, through and within the site; and Identify suitable mitigation measures, if required to ensure the efficient and safe functioning of the road network. This should include identification of pedestrian movements and appropriate provisions for shared path/cycleway/public transport to existing and proposed road network. 	Part 4.4

Key Issues			Section
	4.2	Undertake intersection modelling using aaSIDRA for all key junctions of the development with the existing road network. The modelling should consider AM and PM peak volumes and holiday peak volumes. Electronic copies of the input and output files, movement summaries and queue lengths must be submitted for evaluation. files, movement summaries and queue lengths must be submitted for evaluation.	
	4.3	Protect existing public access to and along the beach and coastal foreshore and provide, where appropriate, new opportunities for controlled public access. Consider access for the disabled, where appropriate.	
5	Hazard Management and Mitigation		
	<i>Coastal Process</i>		Part 4.4
	5.1	Address coastal hazards and the provisions of the Coastline Management Manual. In particular consider impacts associated with wave and wind action, coastal erosion, climate change, sea level rise and more frequent and intense storms.	
	5.2	Address consistency with Rivers and Foreshores Improvements Act 1948, NSW Coastal Policy, NSW Wetlands Management Policy, NSW State Rivers and Estuaries Policy and NSW Estuary Management Policy.	
	<i>Contamination</i>		Part 4.4
	5.3	Identify any contamination on site and appropriate mitigation measures in accordance with the provisions of SEPP 55 - Remediation of Land.	
	<i>Acid Sulfate Soils</i>		Part 4.4
	5.4	Identify the presence and extent of acid sulfate soils on the site and, where relevant, appropriate mitigation measures in accordance with the Acid Sulfate Soil Manual (NSW Acid Sulfate Soil Management Advisory Committee 1998).	
	<i>Bushfire</i>		Part 4.4
	5.5	Address the requirements of Planning for Bush Fire Protection 2006 (RFS).	
	<i>Geotechnical</i>		Part 4.4
	5.6	Provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.	
	<i>Flooding</i>		Part 4.4
	5.7	Provide an assessment of any flood risk on site in consideration of any relevant provisions of the NSW Floodplain Development Manual (2005) and Flood Policy of Shellharbour City Council.	
	5.8	Address the impact of flooding on the proposed development, the impact of the development on flood behaviour and the impact of flooding on the safety of people/users of the development, factors that may affect flooding on the site and flood planning levels. Implications of climate change and sea level on flooding and a range of flood events (up to and including the probable maximum flood) should be considered.	
	5.9	Include an assessment of the sensitivity of flood model parameters (hydrologic and hydraulic)	
	5.10	Consider the potential impacts of any filling on the flood regime of the site and adjacent lands.	

Key Issues			Section
6.	Water Cycle Management		
6.1	Address and outline measures for Integrated Water Cycle Management (including stormwater) based on Water Sensitive Urban Design principles which addresses Impacts on the surrounding environment, drainage and water quality controls for the catchment.		Part 4.4
6.2	Assess the impacts of the proposal on surface and groundwater hydrology and quality.		
7.	Heritage and Archaeology		
7.1	Address the draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC, July 2005).		Part 4.4
7.2	Identify whether the site has significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance (Aboriginal community consultation should be undertaken in accordance with DEC's <i>Interim Community Consultation Requirements for Applicants</i>).		
7.3	Identify any items of European heritage significance and, where relevant, provide measures for the conservation of such items.		
8	Flora and Fauna		
8.1	Outline potential impacts on aquatic and terrestrial flora and fauna and their habitats (within the meaning of the Threatened Species Conservation Act 1995 and the Fisheries Management Act 1994). Provide measures for their conservation, where relevant.		Part 4.4
8.2	Provide predictions of any impacts on aquatic environments on or adjacent to the site, in particular on offshore rocky reef areas and measures for mitigation.		
8.3	Address measures to protect and manage the riparian corridor and adjacent aquatic habitats.		
9	Noise, Odour and Air Quality		
9.1	Address potential noise impacts, in particular noise from the adjacent quarry and road traffic noise, for future residents and appropriate mitigation measures.		Part 4.4
9.2	Address odour impact from existing or proposed new sewage system in accordance with DEC's Technical Framework for Assessment and Management of Odour from Stationary Sources in NSW 2006.		
9.3	Address NSW Action for Air and Action for Transport Plans.		
10.	Socio-Economic Impacts		
10.1	Address the potential social and economic impacts of the development particularly with regard to any increased need for facilities such as schools, hospitals and community facilities.		Part 4.4

Consultation		Section
You should undertake an appropriate and justified level of consultation with the following agencies during the preparation of the environmental assessment::		Part 4.4
(a)	Agencies or other authorities: <ul style="list-style-type: none"> Commonwealth Department of Environment and Water Resources Shellharbour City Council Department of Environment and Climate Change; Department of Primary Industries; Department of Natural Resources; Roads and Traffic Authority; NSW Police; NSW Department of Education and Training; NSW Department of Health; Department of Planning Regional Office, Wollongong; and local Aboriginal land Council/s and other Aboriginal community groups 	
(b)	Public: Document all community consultation undertaken to date or discuss the proposed strategy for undertaking community consultation. This should include any contingencies for addressing any issues arising from the community consultation and an effective communications strategy. The consultation process and the issues raised should be described in the Environmental Assessment	

Supporting Documentation		Section	Print	CD
1.	The existing site survey plan is to be drawn to 1:500 scale (or other appropriate scale) and show: <ul style="list-style-type: none"> the location of the land, the measurements of the boundaries of the land, the size of the land and north point; the existing levels of the land in relation to buildings and roads; location and height of existing structures on the site; and location and height of adjacent buildings and private open space. 	Part 2		
2.	An aerial photograph of the subject site with the site boundary superimposed.	Part 2		
3.	A Site Analysis Plan must be provided which identifies existing natural elements of the site (including all hazards and constraints), existing vegetation, property dimensions, footpath crossing levels and alignments, existing pedestrian and vehicular access points and other facilities, slope and topography, natural features such as watercourses, rock outcrops, utility services, boundaries, orientation, view corridors and all structures on neighbouring properties where relevant to the application (including windows, driveways etc.).	Part 2		

Supporting Documentation		Section	Print	CD
4.	A locality/context plan drawn to 1:500 scale (or other appropriate scale) should be submitted indicating: <ul style="list-style-type: none"> significant local features such as parks, community facilities and open space, water courses and heritage items; the location and uses of existing buildings, shopping and employment areas; traffic and road patterns, pedestrian routes and public transport nodes; and the existing site plan and locality plan should be supported by a written explanation of the local and site constraints and opportunities revealed through the above documentation. 	Part 2		
5.	The Environmental Assessment in accordance with the Director-General's Environmental Assessment Requirements as outlined in Attachment 1.	Part 4	25xA3	6
6.	Indicative subdivision plans are to show the following:- <ul style="list-style-type: none"> The location, boundary dimensions, site area and north point of the land. Proposed subdivision pattern and location of all proposed roads and footpaths; Location of all structures proposed and retained on site; Finished levels in relation to roads, footpaths and structures; Location of access points to the subdivision; Type of subdivision proposed (Torrens, strata and/or community title). 	N/A However Parts 3 & 4 provide indicative illustrations		
7.	The Conceptual Architectural drawings are to illustrate the following general features: <ul style="list-style-type: none"> location of any existing building envelopes or structures on the land; proposed communal facilities and servicing points; height shown as building envelopes in elevation and the length and built form of proposed buildings in relation to the land; significant level changes; parking and vehicular access arrangements; and pedestrian access to, through and within the site. 	N/A However Parts 3 & 4 provides indicative illustrations		
8.	Stormwater Concept Plan - illustrating the concept for stormwater management from the site and must include details of any major overland flow paths through the site and any discharge points to the street drainage system. Where an on-site detention system is required, the type and location must be shown and must be integrated with the proposed landscape design. Site discharge calculations should be provided.	Appendix B		
9.	Landscape Concept Plan - plan or drawing that shows the basic detail of planting design and plant species to be used, listing botanical and common names.	N/A However Appendices N & O provide indicative illustrations		
10.	View analysis - artist's impression, photomontages, etc of the proposed development in the context of the surrounding development.	Part 4.4		

Specialist Advice	Appendix	Print	CD
Specialist advice, where required to support your Environmental Assessment, must be prepared by suitably qualified and practising consultants in relation to issues including, but not limited to, the following:			
• Flora and Fauna;	H	25	6
• Bushfire;	E	25	6
• Landscaping;	N/A However Appendices N & O provide guidelines	25	6
• Aboriginal archaeology;	G	25	6
• Geotechnical and/or hydro geological (groundwater);	D	25	6
• Stormwater/drainage;	B	25	6
• Urban Design/Architectural;	Parts 3 & 4 and Appendices N & O	25	6
• Contamination in accordance with the requirements of SEPP 55; and	C	25	6
• Acid Sulphate Soil Management Plan.	D	25	6
Documents to be submitted			
• 25 hard copies of the Environmental Assessment.		25	6
• 25 sets of architectural and landscape plans to scale, including one (1) set at A3 size (to scale)	N/A However Parts 3 & 4 provide indicative illustrations	25	6
• 6 copies of the Environmental Assessment and plans on CD-ROM (pdf format) not exceeding 5mb in size.			6
• If the Environmental Assessment is bulky and lengthy in volume, you will be required to package up each Environmental Assessment ready for distribution by the Department to key agencies.			✓

Part 1 - Introduction

1.1 Introduction

This Concept Plan Application and Environmental Assessment fulfils the Environmental Assessment Requirements issued by the Director General for the Project Application for the Shell Cove Boat Harbour Precinct and is submitted to the Minister for Planning (the Minister) pursuant to Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act) and the State Environmental Planning Policy (Major Development) 2005 (SEPP Major Development) under Schedules 1 and 2 of the SEPP Major Development as summarised below (see Part 4.3, pp 42):

- Schedule 1, Group 5, Clause 13
 - A residential, commercial or retail project with a capital investment value of more than \$100 million.
- Schedule 1, Group 6, Clause 14
 - A boat storage facility for more than 80 vessels.
- Schedule 1, Group 6, Clause 17
 - A tourist related facility that has a capital investment value of more than \$100 million.
- Schedule 2, Specified Sites, Coastal Areas
 - Land located in a sensitive coastal location that is to be subdivided for residential purposes into more than 100 lots.

The Proponent, Australand Corporation (NSW) Pty Ltd and Shellharbour City Council, proposes the development of a:

- Commercial mixed use core including a landmark hotel.
- Business park precinct.
- Standard, medium and high density residential development.
- A comprehensive network of open space and wetlands.

This Concept Plan Application and Environmental Assessment has been prepared by LFA (Pacific) Pty Ltd and incorporates inputs from relevant specialist consultants. The Concept Plan Application and Environmental Assessment provides a description and analysis of the site, its context and the proposed development as well as an assessment of the proposal in accordance with the DGRs under Part 3A of the EP&A Act. Specialist consultant reports are included as Appendices to this report and should be referred to for detailed technical information and analysis.

This Concept Plan Application and Environmental Assessment outlines the scope of the project including:

- The site and its context.
- Development options.
- Justification for the project taking into consideration any environmental impacts, suitability of the site and whether the project is in the public interest.
- Staged implementation.
- Information which addresses the Environmental Assessment Requirements in accordance with the Director General's Requirements.

The report has been structured as follows:

- Part 1 - Introduction
- Part 2 - The Site
- Part 3 - The Project
- Part 4 - Environmental Assessment
- Part 5 - Draft Statement of Commitments
- Part 6 - Conclusion

1.2 History of Development

Development Consent has not previously been granted for the Shell Cove Boat Harbour Precinct. However, the site has been an integral component of the planning and design process for the entire Shell Cove urban development area from the earliest stages of the masterplanning process, initiated as a result of extensive background studies undertaken by federal, state and local government. The Boat Harbour Precinct will accommodate the necessary ancillary land uses which will ensure that the Boat Harbour functions in a safe and effective manner whilst maximising the opportunities for economic and social benefits for the Illawarra region. Fig. 2.01, pp 12 indicates the study area within the Coastal Zone of NSW.

In 1977 studies were initiated to identify facilities required to improve recreational boating within the Illawarra region, including, the *Wollongong Region Recreational Boating Study* (1977) and the *Wollongong Region Boat Harbour Preliminary Investigation* (1981). The studies investigated recreational boating demand in the area and recommended a site at Shellharbour as the preferred location for a marina.

In September 1983 the Commonwealth and State Governments jointly announced the Steel Industries Assistance Program to assist in restructuring the economic base of the major steel regions of Australia, which included the Illawarra region. As part of this program, \$10 million was directed to promote and develop tourism within the Illawarra region. A portion of these funds enabled a major feasibility study for the Illawarra Boat Harbour to be undertaken for the Tourism Commission and Public Works Department of NSW by a number of specialist consultants. In November 1985, that study concluded that the proposed Boat Harbour *'is one project which is extensive enough and strategically located to act as a stimulus for the long term diversification of the Regional economy as well as spearhead the growth of a more positive Regional image.* Furthermore, the study concluded that *'the total project site should be developed as an integrated residential and recreational community with all adjacent land uses being physically compatible.'*

The EIS prepared as part of DA 95/133 clearly states that, *'it is ultimately intended that the Boat Harbour will be surrounded by a range of development including a hotel, commercial village, aquatic club, commercial marina and dry berth/workshop facilities, motel and residential accommodation. Although development consent is not sought for these ancillary facilities at this stage, this EIS has been prepared having regard to their potential impact.'*¹ The boundaries of the EIS study area were determined following detailed discussions with the DoP and included the area now known as the Boat Harbour Precinct as well as the Boat Harbour itself. The DGRs in relation to the Boat Harbour included an analysis of the potential impacts of the entire Shell Cove development including traffic and water quality. Detailed exploration of those issues led to an examination of the impacts of the Boat Harbour and Marina on the wider Shell Cove urban development and vice versa.

It is necessary to consider this Concept Plan Application in light of the overall Shell Cove development and regional development of Shellharbour and its environs, and in particular to note that:

- A town was established at Shellharbour during the nineteenth century. The structure of the town was essentially a grid layout with minor modifications responsive to landform.
- Railway arrived in the 1880s with a station located to the south west of Shellharbour Village. Shellharbour is on the South Coast Intercity Line and commuter services operate on a regular basis.
- Studies initiated in 1977 investigated recreational boating demand in the Illawarra region and recommended the site at Shellharbour as the preferred location for a marina.

¹ LFA, 1995, Environmental Impact Statement, pp 5

- Federal and state government funding was committed during the 1980s to seek diversification of the economic base of the Illawarra region. Extensive economic, environmental and social studies were undertaken resulting in the identification of the Shellharbour district as a suitable location for a Boat Harbour and associated urban development.
- Shell Cove and the surrounding district was subject to detailed site investigation and the development of a range of Masterplans and development options.
- Residential development commenced in Shell Cove in 1995 and reflects a masterplanned approach to urban development with the integration of social and physical infrastructure within the urban fabric
- Shell Cove was added to the Illawarra Urban Development Program in the 1970s. Development by Landcom and others has subsequently occurred to the north and west of Shellharbour Village.
- Development Consent for the creation of the Boat Harbour was granted by the NSW government in 1996 providing the impetus to create the Myimbarr Wetlands to the north west of the Boat Harbour and allowing the removal and remediation of contaminated land in the Shellharbour Swamp.
- Killalea State Park is a significant regional recreation resource located immediately to the south of Shell Cove and was designated in the late 1970s.
- Bass Point Reserve was designated in the late 1960s. A subsequent land swap between Shellharbour City Council and the NSW government allowed for the degraded Shellharbour Swamp to be remediated and Bass Point Reserve to be created in perpetuity. The Reserve is located adjacent to the Bushrangers Bay Aquatic Reserve, which is listed on the National Estate.
- The Bass Point Quarry remains operative having originally commenced in 1880. A Quarry Buffer Zone (QBZ) under the SLEP ensures that land uses in immediate proximity will be compatible with the daily activities of the quarry.
- The Shell Cove Boat Harbour will provide a minor port and is consistent with the objective of establishing safe harbours along the NSW coast. It will also provide opportunities for recreational fishing and boating to be developed as tourist and economic attractors in the district.
- A series of development options have been prepared over time for the Boat Harbour Precinct (see Part 3.1, pp 23-25). Linkages to the Shellharbour Village have been explored extensively with consultation emphasising the community desire for Shellharbour to retain its independence from the Boat Harbour Precinct. Economic and retail studies have supported this stance, resulting in the current layout. The Boat Harbour Precinct layout seeks to maximise pedestrian and visual linkages between the two centres with the maxim adopted that Shellharbour and Shell Cove will form two separate villages.

The location and form of the site development is consistent with Structure Plans for the entire Shell Cove development area. Information and analysis regarding the site and the Boat Harbour itself have previously been linked in the development assessment and approvals process with significant economic and community resources having been committed to the project on that basis.

A history of Development Consent and s.96 modifications is provided below to explain the status of the site and its statutory context.

1.3 History of Development Consent

In 1995, DA 95/133², which included a comprehensive EIS prepared by LFA (Aust) Pty Ltd, sought consent for the development of the following components of the Shell Cove Boat Harbour and Marina:

- The construction and operation of a Boat Harbour and Marina development and associated facilities.
- The enlargement and enhancement of wetlands at Shadforth (Myimbarr Wetlands).
- The deposition of waste material extracted from Shellharbour Swamp in engineered landfill cells adjacent to the QHR.

The Development Application was lodged on behalf of the Proponent who proposed to undertake the development with Walker Corporation Ltd as Project Manager.

The Minister subsequently initiated a Commission of Inquiry for Environment and Planning (the Commission) in accordance with s.119(2) of the EP&A Act into:

- a.(i) The environmental aspects of the proposed development that is the subject of DA 95/133 by Shellharbour City Council for a 350 berth marina (the Boat Harbour), the enlargement/enhancement of wetlands at Shadforth (Myimbarr Wetlands) and the placement of landfill material adjacent to a realigned quarry road at Shell Cove, Shellharbour.
- (ii) The significance of Wetland No. 376 identified under SEPP No. 14 which is proposed to be removed by the subject development proposal and the effectiveness of the proposed compensatory measures.

² NSW Department of Urban Affairs and Planning reference W92/1016

In April 1996 the Commission concluded *‘that the potential financial, employment and social benefits for the community are significant. So too are the likely improvements in the urban stormwater quality and wetland values associated with Shadforth Wetland construction and protection and enhancement of other wetlands within the Shellharbour area. Such considerations when balanced with possible adverse environmental consequences lead us to conclude that environmental considerations do not negate the Minister granting consent to the subject Development Application No. 95/133.’*

Upon consideration of the Commissioners’ conclusions the Minister granted conditional consent to the development application on 26 November 1996.

A modification to the Development Consent was granted by the Minister under s.96(2) of the Act on 9 November 2001. Approval was granted for the following modifications to the Development Consent:

- Deletion of the requirement to construct landfill mounds along the QHR.
- Provisions which approved the use of acoustic barrier panels along the QHR instead of the landfill mounds.
- Provisions which approved the disposal of waste material from Shellharbour Swamp either into a licensed landfill or alternatively into a site wholly within the land covered by the original Development Consent (subject to obtaining any necessary further development consent or approval).

Additional modifications to the Development Consent granted by the Minister under s.96(2) of the Act on 6 September 2004 included:

- Permission granted for the deposition of waste material extracted from the Shellharbour Swamp into a single landfill cell.
- Definition of the role of the Shadforth Management Committee in relation to the preparation of the Shadforth/Tongarra Creek Wetland System Environmental Management Plan.
- Permission granted for the extraction of waste material independent of the practical completion of the Myimbarr Wetlands.
- Permission granted for the disposal of actual and potential acid sulfate soils by reburying below RL -1.0 and/or at an EPA licensed landfill site.

Modifications to the Development Consent were also granted by the Minister under s.96(2) of the Act on 31 October 2006 and included:

- An approximate rotation of 15 degrees of the Boat Harbour plan form and consequential changes to minimise disturbance of acid sulfate soils.
- Realignment and shortening of the breakwater by 50m and adoption of a berm design, minor changes to the northern groyne, a consequential narrowing of the entrance channel and the deletion of the southern groyne.
- Changes to the layout and number of marina berths.
- Deletion of the Boat Harbour flushing pipe system
- Amendment of Condition 14(b) of the Development Consent (deleting Conditions 14(b) and 14(c)) to ensure that the condition is not in conflict with approvals obtained under the National Parks and Wildlife Act 1974.
- Replacement of Condition 15(d) (ii) to require that a Water Quality Management Plan be prepared by the Proponent in consultation with the EPA and DLWC.

It is noted that components of the development which will extend below mean high water mark do not require development consent under the EP&A Act. However, development below mean high water mark does require assessment pursuant to Part 5 of the Act by the Minister for Land and Water Conservation. Approval was granted to those aspects of the development pursuant to s.41 of the Coastal Protection Act 1979 on 19 March 1998.

In 1986 the SLEP No. 25 rezoned the majority of the Shell Cove development area to Residential 2(f).

In January 2007 a Preliminary Environmental Assessment was submitted by LFA (Pacific) Pty Ltd on behalf of the Proponent to the NSW Department of Planning.

The preparation of this Environmental Assessment has involved a review of previous studies including:

- Australian Marina Management Pty Ltd (2005) Marina Berth Demand and Distribution Study, Marina and Marina Precinct Commentary.
- Batley, G (Dr.) Modeling Copper in Harbour Waters for Stage 2 Preliminary Design.
- Cardno Lawson Treloar, Numerical Modeling.
- Coffey Geosciences Pty Ltd (2005) Draft Report (Rev 5) on Geotechnical Issues for the Original Boat Harbour Design.
- Dr Johan Kamminga, Indigenous Cultural Heritage Issues Associated With the Southern Groyne.
- Jackson, M (Capt.) (2005) Shell Cove Boat Harbour – Navigation Matters.
- LFA (Pacific) Pty Ltd. (1995) Environmental Impact Statement.
- LFA (Pacific) Pty Ltd. (2000) Shell Cove Structure Plan Review Report.
- Anink, P. Marine Pollution Research Pty Ltd, Survey of Sediments at Various Boat Harbours and Marinas.

- Office of the Commissioners of Inquiry for Environment and Planning (1996) Shellharbour Boat Harbour and Marina Development.
- Patterson Britton & Partners Pty Ltd (2005) Shell Cove Boat Harbour S.96 Modification of Consent 95/133 – Support Information.
- University of NSW Water Research Laboratory, Physical Modeling of Breakwater and Groyne Options.
- White, I (Prof.) Australian National University, Management Sulfate Soils.
- Wilkinson Murray Pty Ltd (2005) Shell Cove Boat Harbour and Marina Revised Development Noise Assessment.

The following range of studies have been prepared specifically for inclusion as Appendices to this Environmental Assessment:

- Traffic.
- Coastal Processes and Water Cycle Management.
- Contamination.
- Geotechnical.
- Bushfire.
- Flood Management.
- Cultural Heritage.
- Flora and Fauna.
- Aquatic Ecology.
- Air Quality and Noise.
- Odour Control.
- Economic Impact.
- Social Infrastructure.
- Open Space Guidelines.
- Street Guidelines.
- Estimate of Cost.