

Project Approval

Section 75J of the *Environmental Planning & Assessment Act 1979*

Under delegation of the Minister for Planning and Infrastructure dated 14 September 2011, the Planning Assessment Commission determines to give approval to the project application referred to in Schedule 1, pursuant to section 75J of the *Environmental Planning and Assessment Act 1979*, subject to the conditions referred to in Schedules 2 and the proponent's Statement of Commitments in Schedule 3.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.



Garry Payne
Commission Member



Joe Woodward
Commission Member

Sydney

9 May 2012

SCHEDULE 1

Application No.:

10_0209

Proponent:

Gemsted Pty Ltd

Approval Authority:

Minister for Planning and Infrastructure

Land:

Reclaimed Crown land above and below the mean high watermark of Brisbane Water Drive and adjoining unsurveyed Crown land comprising part of the bed of Brisbane Water – Lot 519 DP 729020, 19 Brisbane Water Drive, Koolewong – Gosford local government area

Project:

Koolewong Marina, comprising:

- construction of a 50 berth marina;
- upgrading and raising of the existing timber jetty;
- upgrading and reconfiguration of the existing car park to provide an additional 14 car parking spaces; and,
- change of use to an existing office.

TABLE OF CONTENTS

SCHEDULE 2.....	3
DEFINITIONS	3
PART A – ADMINISTRATIVE CONDITIONS	4
PART B – PRIOR TO ISSUES OF CONSTRUCTION CERTIFICATE	6
PART C – PRIOR TO CONSTRUCTION	11
PART D – DURING CONSTRUCTION.....	13
PART E – PRIOR TO ISSUE OF OCCUPATION CERTIFICATE / PRIOR TO OPERATIONS.....	17
PART F – DURING OPERATIONS	20
ADVISORY NOTES	22
SCHEDULE 3 – STATEMENT OF COMMITMENTS.....	24

SCHEDULE 2

DEFINITIONS

Advisory Notes	Advisory information relating to the consent but do not form a part of this consent
Application	The development application and the accompanying drawings plans and documentation described in Condition A1.
BCA	Building Code of Australia
Construction	Any works, including earth and building works
Council	Gosford City Council
Certifying Authority	Means a person who is authorised by or under section 109D of the EP&A Act to issue a construction certificate under Part 4A of the EP&A Act; or in the case of Crown development, a person qualified to conduct a Certification of Crown Building works
Department	Department of Planning and Infrastructure, or its successors
Director-General	Director-General of the Department of Planning and Infrastructure, or nominee/delegate
Director General's approval, agreement or satisfaction	A written approval from the Director-General, or nominee/delegate Where the Director-General's approval, agreement or satisfaction is required under a condition of this approval, the Director-General will endeavour to provide a response within one month of receiving an approval, agreement or satisfaction request. The Director-General may ask for additional information if the approval, agreement or satisfaction request is considered incomplete. When further information is requested, the time taken for the Applicant to respond in writing will be added to the one month period.
EA	The <i>Environmental Assessment for a 50 Berth Marina and Car Park Reconfiguration</i> prepared by ADW Johnson on behalf of Gemsted Pty Ltd, and dated August 2011
EPA	Environment Protection Authority, or its successor
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation or Regulation	Environmental Planning and Assessment Regulation 2000
Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval
Minister	Minister for Planning and Infrastructure, or nominee
PCA	Principal Certifying Authority, or in the case of Crown development, a person qualified to conduct a Certification of Crown Building works
Proponent	Gemsted Pty Ltd
PPR	The <i>Preferred Project Report for Proposed 50 Berth Marina and Car Park</i> prepared by ADW Johnson Pty Ltd on behalf of Gemsted Pty Ltd, and dated December 2011
Project	Development to which Major Project 10_0209 applies
Reasonable and Feasible	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements. Feasible relates to engineering considerations and what is practical to build
RMS	Roads and Maritime Services Division, Department of Transport or its successor
Subject Site	19 Brisbane Water Drive, Koolewong – Lot 519 DP 729020

PART A- ADMINISTRATIVE CONDITIONS

A1. Development in Accordance with Plans and Documentation

The Proponent shall carry out the project in accordance with:

- a) Major Project Application 10_0209.
- b) The *Environmental Assessment* for a 50 Berth Marina and Car Park Reconfiguration at Crown Land Above and Below Mean High Water Mark Off Brisbane Water Drive Being Lot 519 DP 729020 on behalf of Gemsted Pty Ltd, dated August 2011.
- c) The *Preferred Project Report* for a Proposed 50 Berth Marina and Car Park at Crown Land Above and Below Mean High Water Mark Off Brisbane Water Drive Being Lot 519 DP 729020 on behalf of Gemsted Pty Ltd, dated December 2011.
- d) Amended Statement of Commitments, as contained within the PPR, prepared by ADW Johnson Pty Ltd and dated December 2011.
- e) The following drawings:

Architectural (or Design) Drawings prepared by ADW Johnson			
Drawing No.	Revision	Plan Title	Date
001	C	Proposed Marina Layout	20/08/10
001	A	Proposed Car park Layout (44 Spaces) Typical Service Vehicle and Standard Car Turning Templates	20/07/10
150134	A	Proposed Marina for Lot 519 in D.P.729020 Light and Services Plan	01/07/11
04	A	Figure 4: Erosion and Sedimentation Control Plan	13/07/11
150134	A	Proposed Marina for Lot 519 in D.P.729020 Public Access Plan	29/06/11
150134	A	Swing Mooring Plan	05/07/11
150134	A	Proposed Marina for Lot 519 in D.P.729020 Landscape Plan	11/07/11

except for:

- a) Any modifications which are 'Exempt and Complying Development' as identified in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 or as may be necessary for the purpose of compliance with the BCA and any Australian Standards incorporated in the BCA.
- b) Otherwise provided by the conditions of this approval.

A2. Inconsistencies between Documents

In the event of any inconsistency between conditions of this approval and the drawings and documents referred to above, including the Proponent's Statement of Commitments, the conditions of this approval shall prevail.

A3. Statutory Requirements

The Proponent shall ensure that all licences, permits and approvals are obtained and maintained as required throughout the life of the project. No condition of this approval removes the obligation of the Proponent to obtain, renew or comply with such licences, permits or approvals. The Proponent shall ensure that a copy of this approval and all relevant environmental approvals are available on the site at all times during the project.

A4. Compliance with the Building Code of Australia

All works are to be carried out in accordance with the requirements of the BCA.

A5. Construction Certificate

This approval does not constitute permission to begin works associated with the development. A Construction Certificate (where applicable) must be obtained prior to the commencement of any development works.

A6. Additional Details and Information

Any requirements outlined by conditions of this approval requiring changes and/or other information to be noted on the plans are to be incorporated within the Construction Certificate(s) plans and documentation.

A7. No Dredging Permitted

This approval does not permit any dredging of the seabed and/or modifications to the underlying sediment. A separate application will be required should dredging be required in the future.

A8. Road Works

All road works associated with the proposal will be at no cost to Council or NSW Roads and Maritime Services.

A9. Construction Staging

The Proponent may elect to construct the project in stages. In this case, these conditions of approval may be complied with separately for each stage as relevant, unless otherwise specified by these conditions of approval.

A10. Existing Approvals and Operational Procedures

The existing site uses and operational procedures (restaurant and offices) are to continue to operate under the existing approvals issued by Council.

A11. Responsibility of Other Approvals / Agreements

The Proponent is responsible for ensuring that all additional approvals and agreements are obtained from other authorities, as relevant.

A12. Lapsing of Approval

This project approval shall lapse five years after the date on which it is granted, unless the works the subject of this approval have been physically commenced on or before that time.

A13. Compliance

The Proponent must assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in this approval. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation. Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:

- a) take all reasonable and feasible steps to bring the operation back into compliance;
- b) ensure that the exceedance does not recur;
- c) consider all reasonable and feasible options for remediation (where relevant) and how to prevent a recurrence and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- d) implement remediation and prevention measures as directed by the Director-General.

to the satisfaction of the Director-General.

End of this Section

PART B- PRIOR TO ISSUE OF CONSTRUCTION CERTIFICATE

B1. Design Modifications

The Proponent is required to provide a sewage pump out facility as part of the marina. Details of the design and location of the facility are to be submitted to the satisfaction of the Water Supply Authority, with a copy provided to Council and the department.

B2. Additional Details

Additional details are to be submitted to the satisfaction of the Certifying Authority, including:

- a) identification of the existing piles to be removed and how this process is to be carried out (should pile removal be required); and
- b) demonstrate that the maximum length and draft of vessels to be moored at the marina is in accordance with Australian Standard 3962–2001 for the available water depth at that location.

B3. Relinquishment of Swing Moorings

To ensure the marina does not contribute to unnecessary obstruction of the waterway, a plan identifying any existing swing moorings to be relinquished as part of the proposal are to be submitted to the Certifying Authority. A copy of the plan is to be forwarded to Council, the department, and NSW Maritime. The relinquishment of swing moorings shall be undertaken by the Proponent at no cost to NSW Maritime.

B4. Invasive Algae Removal

The Proponent is required to remove all areas of the invasive algae species *Caulerpa taxifolia*, as identified in the Aquatic Ecology Assessment prepared by Cardno Ecology Lab Pty Ltd and dated May 2011 (as provided in the EA). The species removal is required to be carried out in consultation with the Department of Primary Industries (Fisheries) and to the satisfaction of the Certifying Authority.

B5. Construction Management Plan

A Construction Management Plan is to be submitted to and approved by the Certifying Authority prior to the commencement of any building works, demolition or excavation. The Plan must include the following measures, as applicable to the type of development:

- a) A description of all relevant activities to be undertaken on the site during construction and their timing including an indication of stages of construction, where relevant. Where feasible piling shall occur by screwing piles into the lake bed.
- b) Statutory and other obligations that the Proponent is required to fulfil during construction including all relevant approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies.
- c) Details of how environmental performance of the construction works will be monitored, and what actions will be taken to address identified potential adverse environmental impacts to ensure compliance with all relevant requirements.
- d) In the event of any construction-related works likely to interrupt traffic movements along Brisbane Water Drive, a Traffic Control Plan (TCP) is to be prepared as part of the Construction Management Plan with the intention of reducing the impact of construction traffic on the existing road network. The TCP is to be submitted to Council and the RMS for review prior to any construction activities.
- e) All vessels during construction are to be prohibited from deploying anchors within seagrass habitat.
- f) All equipment used during construction activities is required to be inspected before and after its use to prevent the spread of the invasive algae species *Caulerpa taxifolia*. Should the species be found on any construction equipment, it is required to be immediately removed and appropriately disposed of with general waste refuse.

- g) A description of the roles and responsibilities for all relevant employees involved in the construction of the project.
- h) Complaints handling procedures during construction.
- i) Location and construction of protective fencing / hoardings to the site's perimeter, fabric silt curtains, site storage areas / sheds / equipment, building materials for construction, site access.
- j) Provisions for public safety.
- k) Any other measures related to construction and contained in the conditions of approval.

Construction management measures are to be implemented prior to the commencement of any works and be maintained throughout construction, so that public health and safety is maintained. A copy of the approved Plan shall be maintained on site and made available upon request.

B6. Construction Noise and Vibration Management Plan

The Proponent shall prepare a Construction Noise and Vibration Management Plan in order to minimise noise and vibration impacts resulting from construction of the project. The Plan shall be prepared by a suitably qualified expert to the satisfaction of the Certifying Authority prior to the issue of a Construction Certificate. The plan is to include but not be limited to the following:

- a) Construction noise shall be limited to 56 dB(A) with a maximum noise level of 75 dB(A) in accordance with the Interim Construction Noise Guideline (DECC).
- b) Provision to inform and engage the community regarding the timing and duration of construction that is likely to produce annoying levels of noise above the prescribed maximum noise level of 75 dB(A).
- c) Construction vibration shall comply with acceptable vibration levels recommended in the Assessing Vibration: A Technical Guideline (DECC, February 2006).

All feasible and reasonable noise mitigation measures are to be implemented where construction noise levels exceed the above limits including community notification, silencing and/or the use of alternative construction techniques as well as timing of works.

B7. Construction Waste Management Plan

The Proponent shall prepare and implement a Construction Waste Management Plan. The Plan shall be in accordance with the Waste Management Plan prepared by ADW Johnson, dated July 2011 and contained at Appendix 22 of the EA; and the requirements of Council's Development Control Plan No. 106 – Controls for Site Waste Management (June 2000). The Plan shall be submitted to and approved by the Certifying Authority prior to the issue of a Construction Certificate. The plan shall also comply with the following requirements:

- a) Storage of waste shall occur within the boundaries of the site, by way of a screened area of silt stop fabric, shade cloth or waste disposal bin; provided to Council specifications.
- b) Any waste materials removed from the site shall only be directed to a waste management facility lawfully permitted to accept the materials.
- c) The Proponent shall maximise the treatment, reuse and/or recycling on the site of any excavated soils, slurries, dusts, aggregate and sludges associated with the project, to minimise the need for treatment or disposal of those materials outside the site.
- d) The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*, if such a licence is required in relation to that waste.
- e) Ensure that all liquid and/or non-liquid waste generated and/or stored on the site is assessed and classified in accordance with *Environmental Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes* (DEC, 2004).

B8. Acid Sulfate Soil Management Plan

In the event of any pile removal associated with the construction of the marina, the Proponent shall prepare and implement an Acid Sulfate Soil Management Plan. The Plan shall be prepared to the satisfaction of the Certifying Authority prior to the issue of a Construction Certificate. The Plan shall:

- a) Be consistent with the Acid Sulfate Soils Manual (ASSMAC 1998).
- b) Include details of measures to be implemented in relation to the management and handling of any acid sulfate soils identified during construction or operation of the proposal.

B9. Stormwater Management Plan

The Proponent shall prepare and implement a Stormwater Management Plan, submitted to and approved by the Certifying Authority prior to the issue of a Construction Certificate. The Plan shall be prepared in accordance with the Water Cycle Management Plan contained at Appendix 25 of the EA, dated July 2011 and prepared by ADW Johnson; and the requirements of Council's Development Control Plan No. 165 – Water Cycle Management (Amendment 1) (February 2007). The Plan shall include, but not necessarily be limited to:

- a) Detailed engineering designs for stormwater drainage and water sensitive urban design measures at the site.
- b) A contingency plan for any events during construction that have the potential to pollute or contaminate surface water or groundwater, including threshold levels, remediation actions and communication strategies for the effective management of such an event.
- c) Stormwater drainage structures and infiltration trenches, as well as any other water quality control measures, shall be designed so as to prevent interception and/or connection with and/or infiltration of the underlying ground water table.
- d) The design of infiltration trenches shall take into consideration potential disturbance of acid sulfate soils.

B10. Sediment Erosion Control Plan

The Proponent shall prepare a Sediment and Erosion Control Plan to be submitted to, and approved by the Certifying Authority and Council prior to the issue of a Construction Certificate. The Plan shall also be in accordance with Council's Code of Practice for Erosion and Sediment Control, and the *Protection of the Environment Operations Act 1997*. The plan is required to include the following:

- a) Indicate the present and proposed drainage systems.
- b) Location of existing vegetation to be retained and proposed revegetation areas.
- c) Location of material stockpiles and storage areas.
- d) Provision for the Plan to be updated on a daily basis in relation to the state of erosion controls and all maintenance and cleaning undertaken.

B11. Flood Emergency Response Plan

The Proponent shall prepare a Flood Emergency Response Plan, in consultation with Council, to the satisfaction of the Certifying Authority prior to the issue of a Construction Certificate. The Plan is required to outline measures to deal with an evacuation response from the site in the event of a flood, including the location of an appropriate nearby emergency assembly point. The plan is required to include consideration of managing any staff, marina patrons and boat owners on site, and the relocation of vehicles from the car parking area.

B12. Design Requirements

The approved plans and the Construction Certificate plans and specifications, required to be submitted to the Certifying Authority, shall include the following:

- a) Written assurance from a structural engineer that the approved project will be constructed to best practice to a standard that withstands increased storm intensity and maximum sea level rise of 0.4m, 2050 benchmark level.
- b) The marina design including pile cut-off heights shall be designed to take into account predicted sea-level rise to the 0.4m, 2050 benchmark level, the half wave height appropriate to the site, and the pontoon freeboard height. Written confirmation from a suitably qualified expert shall be provided to ensure the design heights satisfactorily take into account these matters.
- c) Where reasonable and feasible the Proponent shall use non-reflective materials in the construction of the project.
- d) The Proponent shall ensure all recommendations contained in its Noise Impact Assessment contained at Appendix 8 of the EA will be incorporated into the design and construction of the development. A suitably qualified expert shall ensure that these recommendations have been implemented in the projects final design plans.
- e) Provide for clear legible directional signage around the site including car parking areas.
- f) Access and facilities for people with disabilities shall be provided in accordance with the BCA.

B13. Traffic Management Plan

Prior to the issue of a Construction Certificate, a Traffic Management Plan prepared in accordance with AS1742 *Manual of Uniform Traffic Control Devices* and *Traffic Control at Works Sites, Version 2* (RMS) shall be prepared by an RMS accredited employee. The Plan shall be submitted to the satisfaction of the Certifying Authority. The Plan shall address, but not be limited to, the following matters:

- a) Ingress and egress of vehicles to the site.
- b) Loading and unloading areas, including construction zones.
- c) Predicted traffic volumes, types and routes.
- d) Pedestrian and traffic management methods to ensure safe public access is provided to the site at all times.

B14. Car parking

Car parking at the site shall be provided and maintained in accordance with Drawing 001, Revision A – Proposed Carpark Layout (44 Spaces) Typical Service Vehicle and Standard Car Turning Templates, dated 20 July 2010 and contained within Appendix 1a of the EA. Details of the proposed car parking shall be provided to the satisfaction of the Certifying Authority prior to the issue of a Construction Certificate. Car Parking shall also accord with the following requirements:

- a) All parking areas and access ways shall be constructed, sealed and drained in accordance with the Council's Development Control Plan 111 – Car Parking (Amendment No. 1) and associated Engineering Guidelines, and in accordance with AS/NZS 2890.1 – 2004 *Parking Facilities Part 1: Off-Street Car Parking*.
- b) As some parking space lengths are only 4.8m in width, the Proponent must ensure that the first 600mm immediately behind the end overhang of the vehicle is unobstructed by another parking space, a footway (or similar), or vegetation.
- c) On-site car parking shall be identified by line-marking.
- d) Disabled car park spaces shall be designed in accordance with AS1428.1 - *Design for Access and Mobility*.

B15. Car Parking Signage

The Proponent shall, at the driveway exit point before the shared path, erect the bicycle/pedestrian warning sign (W6-9) with crossing arrow signs (W8-23) below it in accordance with AS1742.9 – 2000 *Bicycle Facilities*.

B16. Waste Storage Areas

Prior to the issue of a Construction Certificate the Proponent shall supply construction details relating to operational waste storage areas to the satisfaction of the Certifying Authority. Details shall include the following:

- a) Waste storage areas are to be constructed of, or lined with materials that are durable, impervious to moisture and capable of being cleaned.
- b) Waste storage areas shall be provided on site in a screened location for the separate storage of recyclable and non-recyclable material.

B17. Pre-Construction Dilapidation Reports

The Proponent is to engage a qualified structural engineer to prepare a Pre-Construction Dilapidation Report detailing the current structural condition of all existing and adjoining buildings, infrastructure and roads. The report shall be submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate.

B18. Geotechnical Certification

Documentary evidence prepared by a suitably qualified professional geotechnical engineer shall be obtained prior to the commencement of works, certifying the stability of the existing rock retaining wall bordering the site. A copy of the engineers report is to be submitted to the Certifying Authority prior to the issue of a Construction Certificate.

B19. Provision of Water and Sewer Services

The Proponent shall make satisfactory arrangements for the provision of water and sewer services to the site. A copy of the Certificate of Compliance under Section 307 of the *Water Management Act 2000* shall be obtained prior to the issue of a Construction Certificate and provided to the Certifying Authority and Council.

End of this Section

PART C- PRIOR TO CONSTRUCTION

C1. Notification Requirements

The Certifying Authority and Council shall be given written notice, at least 48 hours prior to the commencement of any construction, excavation, shoring or underpinning works on the site.

The Certifying Authority is to be given a minimum of 48 hours notice prior to any critical stage inspection or any other inspection nominated by the CA via the notice under Section 81A of the *Environmental Planning and Assessment Act 1979*.

Prior to the commencement of construction, the Proponent shall forward to the Department and Council a 24 hour telephone number to be operated for the duration of the construction works.

C2. Structural Details

Prior to the commencement of construction, the Proponent shall submit to the satisfaction of the Certifying Authority structural drawings prepared and signed by a suitably qualified practising structural engineer that comply with:

- a) The relevant clauses of the BCA.
- b) The relevant project approval.
- c) Drawings and specifications comprising the Construction Certificate.
- d) The relevant Australian Standards listed in the BCA.

C3. Appointment of Accredited Certifier

Prior to the commencement of any building works, a suitably qualified person (i.e. an accredited certifier) must be appointed for the development to monitor compliance with the relevant standards of construction, the Major Project approval, and the approved construction plans. The critical stages of construction are to be inspected and a satisfactory inspection must be carried out, to the satisfaction of the appointed Certifier or other suitably qualified person, prior to proceeding to the subsequent stages of construction or finalisation of the works (as applicable).

C4. Payment of Long Service Levy

The required Long Service Levy payment, under the *Building and Construction Industry Long Service Payments Act 1986*, is to be forwarded to the Long Service Levy Corporation or Council prior to commencement of work, in accordance with Section 109F of the *Environmental Planning & Assessment Act 1979*.

C5. Protection of Adjoining Land and Buildings

Driven type piles and/or shoring work must not commence unless a geotechnical engineer's report is obtained, which demonstrates that damage should not occur to any adjoining premises or public places as a result of the works. Any practices or recommendations specified in the engineer's report in relation to the avoidance or minimisation of structural damage to nearby premises or land must be fully complied with and incorporated into the documentation for the construction drawings. A copy of the engineers report is to be submitted to the Certifying Authority.

C6. Seagrass Management Plan

The Proponent shall prepare and implement a Seagrass Management Plan to the satisfaction of the NSW Department of Primary Industries (Fisheries). The Plan shall outline measures to protect and minimise loss to seagrass communities found within and surrounding the site during both construction and operation of the project. The Plan shall also include but not necessarily be limited to the following:

- a) Construction teams should be made aware of the importance of avoiding navigating over seagrass, particularly in shallow areas. If movements over seagrass are necessary during construction then these should be done at high tide, while travelling slowly and ensuring that adequate clearance is maintained between seagrass and propellers.

- b) Information regarding the importance of seagrass shall be provided to future marina members and boat owners in order to raise awareness and ensure ongoing management of the existing seagrass beds as required under this condition.
- c) In consultation with the NSW Department of Primary Industries (Fisheries), regularly monitor seagrass species health and cover within and surrounding the site commencing from the start of construction and continuing for a period of three years.
- d) In consultation with the NSW Department of Primary Industries (Fisheries), provide appropriate mitigation measures to be implemented in the event that construction and/or operation of the project causes unforeseen adverse impacts upon seagrass species health and cover in their pre-construction state.

C7. Pollution of Waters

The Proponent shall comply with Section 120 of the *Protection of the Environment Operations Act 1997* which prohibits the pollution of waters from the construction or operation of the project including any actions taken by any associated vessels.

C8. Odour

The Proponent shall not cause or permit the emission of offensive odours from the site in accordance with the provisions of Section 129 of the *Protection of the Environment Operations Act 1997*.

C9. Excavation

Retaining walls, shoring, or piling must be designed and installed in accordance with appropriate professional standards and the relevant requirements of the BCA and Australian Standards. Details of proposed retaining walls, shoring or piling are to be submitted to and approved by the Certifying Authority prior to commencing such excavations or works.

C10. Erosion and Sediment Control

Prior to commencement of work on the site, all erosion and sedimentation control measures contained in the Sediment and Erosion Control Plan required under condition B10 are to be installed and operational to the satisfaction of the Certifying Authority and Council.

C11. Nutrient Control Facility

The Proponent shall install a nutrient control facility in order to prevent nutrients and oils from the hardstand car parking area directly entering into Brisbane Water. The design and location of the nutrient control facility is to be developed in consultation with Council and to the satisfaction of the Certifying Authority.

C12. Site Amenities

Toilet facilities to be used during construction shall be provided prior to construction at the site at a rate of one toilet per 20 persons employed at the site. Each toilet shall be installed as follows:

- a) In a sewered area, connect the toilet to the appropriate authority's sewerage system.
- b) In an unsewered area an application shall be provided to Council for the use of a chemical closet.

C13. Existing Services

The Proponent shall accurately locate and identify any existing sewer main, stormwater line or other underground infrastructure within or adjacent to the site and advise the Certifying Authority of its location and depth prior to commencing works and ensure there shall be no conflict between the proposed development and existing infrastructure.

End of this Section

PART D- DURING CONSTRUCTION

D1. Complaints Procedure

Prior to the commencement of construction of the project, the Proponent shall ensure that the following are available for community complaints for the life of the project (including construction and operation):

- a) A 24 hour telephone number on which complaints about construction and operational activities at the site may be registered.
- b) A postal address to which written complaints may be sent.
- c) An email address to which electronic complaints may be transmitted.
- d) Name, address, contractor licence number and telephone number of the principal contractor, including a telephone number at which the person may be contacted outside working hours.
- e) Name, address and telephone number of the Project Manager.

The telephone number, the postal address and the email address shall be advertised in a newspaper circulating in the locality on at least one occasion prior to the commencement of construction and of operation of the project. The telephone number, the postal address and the email address shall be displayed on a sign near the entrance to the site during construction of the project, in a position that is clearly visible to the public.

D2. Complaints Register

The Proponent shall record details of all complaints received through the means listed under condition D1 of this approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to:

- a) The date and time, where relevant, of the complaint.
- b) The means by which the complaint was made (telephone, mail or email).
- c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect.
- d) The nature of the complaint.
- e) Any action(s) taken by the Proponent in relation to the complaint, including timeframes for implementing the action.
- f) If no action was taken by the Proponent in relation to the complaint, the reason(s) why no action was taken.

The Complaints Register shall be made available for inspection by the Director-General or Council upon request.

The Proponent shall provide an initial response to any complaints made in relation to the project during construction or operation within 48 hours of the complaint being made. The response and any subsequent action taken shall be recorded in accordance with condition D2.

D3. Incident Reporting

Any exceedance of the limits/performance criteria of this approval, or the occurrence of an incident that causes (or may cause) material harm to the environment, the Proponent shall immediately notify the Council and other relevant agencies of the exceedance/incident.

(Within 7 days of notifying the Council and other relevant agencies of an exceedance/incident, the Proponent shall provide Council and those agencies with a written report which:

- a) Describes the date, time, and nature of the exceedance/incident.
- b) Identifies the cause (or likely cause) of the exceedance/incident.
- c) Describes what action has been taken to date.

- d) Describes the proposed measures to address the exceedance/incident.

D4. Protection of Trees – Street and On-site Trees

All street trees shall be protected at all times during construction. Any tree on the footpath that is not identified on the Landscape Plan listed under condition A1(e), that is damaged or removed during construction, shall be replaced, to the satisfaction of Council.

No trees, other than those identified for removal on the Landscape Plan listed under condition A1(e), shall be removed from the site without prior approval from Council. All trees on the site that are not approved for removal are to be suitably protected by way of tree guards, barriers or other measures as necessary are to be provided to protect root system, trunk and branches, during construction.

D5. Aboriginal Cultural Heritage

The Proponent is to ensure the proper management of Aboriginal cultural heritage values during construction activities at the site. This includes:

- a) All reasonable efforts must be made to avoid impacts on Aboriginal cultural heritage at all stages of construction works. If impacts are unavoidable, mitigation measures are to be negotiated with the local Aboriginal community and the EPA. Any sites impacted must have an EPA Aboriginal Site Impact Recording form completed and be submitted to the EPA's Aboriginal Heritage Information Management System (AHIMS) unit within three months of completion of the works.
- b) The Proponent must consult with Aboriginal community representatives, a registered archaeologist, and the EPA to develop and implement management strategies for any object(s) uncovered during construction activities.
- c) In the event that surface disturbance identifies a new Aboriginal object, all works must halt in the immediate area to prevent any further impacts to the object(s). A suitably qualified archaeologist and a registered Aboriginal representative must be contacted to determine the significance of the object(s). The site is to be registered in the AHIMS (managed by the EPA) and the management outcome for the site included in the information provided to the AHIMS.
- d) If human remains are located, all works must halt in the immediate area to prevent any further impacts to the remains. The NSW Police must be contacted immediately and no further work may be undertaken until police provide written notification to the Proponent. If the skeletal remains are identified as Aboriginal, the proponent must contact the EPA's Enviroline (131 555) and representatives of the local Aboriginal community. No further works may continue until the EPA has provided written notification to the Proponent.

D6. Noise and Vibration Management

During construction of the project the Proponent shall implement the Noise and Vibration Management Plan described in condition B6 and adhere to the following:

- a) Noise and vibration emissions during the construction of the site shall not result in damage to nearby premises or result in an unreasonable loss of amenity to nearby residents.
- b) The relevant provisions of the *Protection of the Environment Operations Act 1997* must be satisfied at all times.
- c) Vibration resulting from construction of the project must not exceed the evaluation criteria presented in the *Environmental Noise Management – Assessing Vibration: A Technical Guide* (DEC, 2006).
- d) The hours of construction of the project, including the delivery of materials to and from the site, shall be restricted as follows:
 - i) Between 7:00 am and 6:00 pm, Mondays to Fridays inclusive.

- ii) Between 8:00 am and 1:00 pm, Saturdays.
 - iii) No work on Sundays and public holidays.
- e) Hours of construction for any piling activities shall be restricted as follows:
 - i) Between 9:00 am and 11:00 am, and then 1:00 pm and 4:00 pm Mondays to Fridays inclusive.
 - ii) Between 9:00 am and 12:00 pm, Saturdays.
 - iii) No piling work on Sundays and public holidays.
- f) Works may be undertaken outside these hours where:
 - i) The delivery of materials is required outside these hours by the Police or other authorities.
 - ii) It is required in an emergency to avoid the loss of life, damage to property and/or to prevent environmental harm;
 - iii) Agreement has been reached with all affected receivers to conduct construction activities outside of these hours.

D7. Dust Mitigation

The Proponent shall construct and operate the project in a manner that minimises dust emissions from the site, including wind-blown and traffic-generated dust. All activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should such visible dust emissions occur at any time, the Proponent shall identify and implement all feasible dust mitigation measures, including cessation of relevant works, as appropriate, such that emissions of visible dust cease.

D8. Fuel Spillage and Leaks

In the event of any fuel spillage/leak, the Proponent shall deploy a fuel contamination boom and absorbent pads. The boom shall be retained and suitably maintained until such time the spillage/leak has been contained.

D9. Compliance with Approval

A Registered Surveyor's survey certificate is to be obtained and provided to the Certifying Authority detailing compliance that the new jetty and marina structure have been constructed at the approved levels.

D10. Disposal of Seepage and Stormwater

Any seepage or rainwater collected on-site during construction shall not be pumped to the street stormwater system unless separate prior approval is given in writing by Council. Otherwise, all overland stormwater flows are to be managed on site.

D11. Demolition, Handling and Disposal of Materials

The demolition, removal, storage, handling and disposal of materials and all building work shall be carried out by a licensed contractor in accordance with the following requirements (as applicable):

- a) AS2601 (2001) – Demolition of Structures.
- b) *Occupational Health and Safety Act 2000*.
- c) Occupational Health and Safety (Hazardous Substances) Regulation 2001.
- d) Occupational Health and Safety (Asbestos Removal Work) Regulation 2001.
- e) WorkCover NSW – Guidelines and Codes of Practice.
- f) The *Protection of the Environment Operations Act 1997* and Protection of the Environment Operations (Waste) Regulation 1996.

D12. Maintenance of Vehicular and Pedestrian Safety and Access

Public safety and convenience must be maintained at all times during construction works. The following requirements shall be complied with:

- a) Brisbane Water Drive and adjoining footpath and nature strip must be maintained in a safe condition, free from any obstructions, materials, soils or debris at all times. Any damage caused to the road, footway or nature strip must be repaired immediately, to the satisfaction of Council.
- b) Temporary disturbance of the road/footpath is permitted for the installation of any utilities. Any damage caused to the road, footway or nature strip must be repaired immediately, to the satisfaction of Council.

D13. Construction Waste Management Measures

The construction waste management measures under the Construction Waste Management Plan contained in condition B7 shall be maintained for the duration of the construction works, and until such time as all construction works have ceased. A copy of the Plan shall be retained on-site and be available to Council and/or any other government agencies.

D14. Sediment and Erosion Control Measures

The sediment and erosion control measures under the Sediment and Erosion Control Plan contained in condition B10 shall be maintained at or above design capacity for the duration of the construction works, and until such time as all ground disturbed by the works has been stabilised and rehabilitated so that it no longer acts as a source of sediment. A copy of the Plan shall be retained on-site and be available to Council and/or any other government agencies.

D15. Seagrass Avoidance

The Proponent shall not anchor any construction vessels in areas of seagrass and avoid areas of *Posidonia Australis* as identified by the seagrass management plan under condition C6. Any barge operations over seagrasses are to be conducted during times when there is sufficient depth of water over seagrasses to avoid harm from barge operations, including propeller action.

End of this Section

PART E- PRIOR TO ISSUE OF OCCUPATION CERTIFICATE / PRIOR TO OPERATIONS

E1. Certification of Civil Works

The Proponent must ensure that all works within or upon the road reserve, footpath, nature strip or other public place are completed to the satisfaction of the Certifying Authority, prior to the issuing of a final Occupation Certificate for the development.

E2. Repair to Council Property

The Proponent shall meet the full cost for Council or a Council approved contractor to repair, replace and/or relocate Council property damaged due to construction and/or operation of the project.

E3. Utilities

Prior to issue of the Occupation Certificate, written evidence shall be submitted to the Certifying Authority from the relevant service providers for telecommunication, electricity and water, that satisfactory arrangements have been made for the provision of their respective services to the site.

E4. Landscaping

Upon completion of landscape works, and prior to the issue of an Occupation Certificate, the Proponent shall obtain approval from the Certifying Authority that certifies landscaping has been completed in accordance with the approved landscaping plan contained in condition A1(e). The Proponent shall be responsible for implementing strategies under condition A1(e) to ensure that this landscaping is maintained in accordance with the approval and in a healthy and vigorous state until maturity.

E5. Sewage Pump Out Installation

The sewage pump out system required under Condition B1 shall be installed and ready for operation prior to the issue of an Occupation Certificate to the satisfaction of the Water Supply Authority.

E6. Suitable for Occupation

A statement confirming that the marina and new jetty structure are suitable for occupation must be obtained from a suitably qualified person (i.e. a BPB qualified accredited certifier) prior to occupation / mooring. The statement must not be issued if the development is inconsistent with the approval and the relevant conditions of approval shall be satisfied prior to occupation. Details of critical stage inspections carried out, together with any other certification relied upon shall be provided to Council prior to occupation.

E7. Disabled Access

Prior to the issue of an Occupation Certificate documentary evidence shall be provided to the Certifying Authority to demonstrate that disabled access is in accordance with condition B12; and in accordance with AS1428 *Suite Design for Access and Mobility* and the *Disability Standards for Accessible Public Transport Guidelines 2001*.

E8. Liquid Contaminant Management

Prior to the issue of an Occupation Certificate the Proponent shall supply the following details relating to the management and disposal of any liquid wastes to the satisfaction of the Certifying Authority:

- a) Mitigation measures to prevent any fuel spillage resulting from the operation of the site from discharging through the site's stormwater drainage system or directly into Brisbane Water.

- b) Management measures to prevent sewage spillage from entering into Brisbane Water and spill management procedures for containment and clean up of any spills, such as emergency shut off details for sewage and sullage pump outs and use of floating booms.
- c) Management measures regarding the cleaning and maintenance of hardstand areas at the site including but not limited to any balconies/decks and methods to prevent washdown water and other pollutants draining into Brisbane Water.
- d) Procedures for staff training in response to emergency spills, accidents and any other emergencies.
- e) Details of the location of spillage control equipment.
- f) Notification procedures in the event of a spill or emergency including emergency contact detail

E9. Pre-Operation Compliance Audit

Prior to the commencement of operations, the Proponent shall submit work-as-executed plans to the Department for all development associated with the project. The plans must be prepared by a suitably qualified and experienced expert, and include plans showing the work-as-executed plans laid over the approved plans to demonstrate that the development has been carried out in accordance with the approved plans.

The Director-General may require an update on compliance with all, or any part, of the conditions of this approval. Any such update shall meet the reasonable requirements of the Director-General and be submitted within such period as the Director-General may agree.

E10. Fire Safety Certificate

A Fire Safety Certificate shall be furnished to the Certifying Authority for all the essential fire or other safety measures forming part of this approval prior to issue of any Occupation Certificate. A copy of the Fire Safety Certificate shall be submitted to Council.

E11. Annual Fire Safety Statement

An Annual Fire Safety Statement must be provided to Council and the NSW Fire Brigade commencing within 12 months after the date on which the approval authority initial Fire Safety Certificate is received.

E12. Structural Inspection Certificate

A Structural Inspection Certificate or a Compliance Certificate must be submitted to the satisfaction of the Certifying Authority prior to the issue of any Occupation Certificate and/or use of the marina. A copy of the Certificate with an electronic set of final drawings (contact approval authority for specific electronic format) shall be submitted to Council after:

- a) The site has been periodically inspected and the Certifying Authority is satisfied that the Structural Works is deemed to comply with the final Design Drawings.
- b) The drawings listed on the Inspection Certificate have been checked with those listed on the final Design Certificate/s.

End of this Section

PART F- DURING OPERATIONS

F1. Marina Environmental and Operational Management

The marina is to be operated in accordance with the provisions and requirements of the Draft Marina Environmental and Operational Management Plan prepared by ADW Johnson Pty Ltd, dated December 2011 and provided as Appendix 6 of the PPR.

Note: the operating hours for the existing offices are to continue to operate under the existing approvals issued by Council, as required in accordance with condition A10.

F2. Clean Marina Program

The Proponent is required to obtain a Level 3 accreditation as part of the Clean Marina Program (CMP) involving an independent assessment by a qualified CMP consultant every three years. The CMP is owned and managed by the Marina Industries Association of Australia and encourages environmental compliance and the use of best management practices for marinas.

F3. Fuel Spillage and Leaks

In the event of any fuel spillage/leak, the Proponent shall deploy a fuel contamination boom and absorbent pads. The boom shall be retained and suitably maintained until such time the spillage/leak has been contained.

F4. Incident Reporting

The Proponent shall immediately notify the Department of Primary Industries (Fisheries – Aquaculture Unit), the NSW Food Authority, and the EPA in the event of any accidental spillage or leakage of sewage or fuel/oils, or illegal sewage dumping activities within Brisbane Water in proximity to the marina.

F5. Noise Control

The proposed use of the premises and the operation of all plant and equipment shall not give rise to an 'offensive noise' as defined in the *Protection of the Environment Operations Act 1997* and Regulations.

F6. Vibrations

The use of the premises and the operation of plant and equipment shall not give rise to the transmission of a vibration nuisance or damage to other premises.

F7. Emissions / Discharges

There are to be no emissions or discharges from the premises which give rise to a public nuisance or result in an offence under the *Protection of the Environment Operations Act 1997* and associated Regulations.

F8. Stormwater Drainage

All stormwater run-off naturally draining to the site must be collected and discharged through the property's stormwater system.

F9. Slipways

No slipway activities are permitted at the site including but not limited to anti-fouling, abrasive sanding, sand blasting, hull scrapping and sanding, major mechanical or refit operations.

F10. Waste Management during Operation

All activities at the site must be carried out in a manner that prevents waste from polluting Brisbane Water. The Proponent shall provide facilities to ensure the collection and disposal of waste

generated at the premises. Facilities may include but not be limited to tarpaulins, waste bins, pump-out facilities, signage, and agreements with those operating at the site. Waste generated on the site during operation of the project is classified in accordance with the EPA's Waste Classification Guidelines and disposed of to a facility that can lawfully accept the waste.

Arrangements shall be made to recycle to the maximum feasible extent all waste that is generated during operation of the site. For the purposes of this condition, waste generated at the premises includes waste collected from vessels at the premises and may include but not be limited to contaminated bilge water, litter, garbage, fuel, and oils.

Arrangements shall be made for the regular removal and disposal of waste materials during operation of the site.

All wastes that contain organotin biocides shall also be collected, stored and disposed of in accordance with the Organotin Waste Chemical Control Order 1989. Guidance information relating to the Order and other solid and liquid waste is provided in the Environmental Guidelines – Best Management Practice for Marinas and Boat Repair Facilities 1999.

F11. Unobstructed Driveways and Parking Areas

All driveways (other than those which are obsolete) and parking areas shall be unobstructed at all times. Driveways and car spaces shall not be used for the manufacture, storage or display of goods, materials or any other equipment and shall be used solely for vehicular access and for the parking of vehicles associated with the use of the premises.

F12. Storage of Hazardous or Toxic Material

Any hazardous or toxic materials must be stored in accordance with WorkCover NSW requirements and all tanks, drums and containers of toxic and hazardous materials shall be stored in a bunded area. The bund walls and floors shall be constructed of impervious materials and shall be of sufficient size to contain 110% of the volume of the largest tank plus the volume displaced by any additional tanks within the bunded area. The bund(s) shall be designed and installed in accordance with the:

- a) Requirements of all relevant Australian Standards.
- b) DECCW's Storing and Handling Liquids: Environmental Protection manual.

The Proponent shall ensure that spillage control equipment, such as absorbent pads and absorbent booms, are available at all times, and stored in a location where they can be employed quickly if spills occur.

If the spill containment pallets are to be used, the drums must be stored in a level area (to ensure full spill storage capacity), and they must be covered so that the pallets do not fill with rainwater. Spill clean-up kits are to be placed on each arm of the marina.

End of this Section

ADVISORY NOTES

AN1. Requirements of Public Authorities for Connection to Services

The Proponent shall comply with the requirements of any public authorities (e.g. Energy Australia, Telstra Australia, AGL, etc) in regard to the connection to, relocation and/or adjustment of the services affected by the construction of the proposed structure. Any costs in the relocation, adjustment or support of services shall be the responsibility of the Proponent. Details of compliance with the requirements of any relevant public authorities are to be submitted to the satisfaction of the Certifying Authority prior to the issue of the Construction Certificate.

AN2. Compliance with Building Code of Australia

The Proponent is advised to consult with the Certifying Authority about any modifications needed to comply with the BCA prior to submitting the application for a Construction Certificate.

AN3. Stormwater Drainage Works or Effluent Systems

A Construction Certificate for works that involves water supply, sewerage and/or stormwater drainage works, or management of waste will not be issued until prior separate approval to do so has been granted by Council under Section 68 of the *Local Government Act 1993*. Applications for these works must be submitted on Council's standard Section 68 application form accompanied by the required attachments and the prescribed fees.

AN4. Groundwater

Any excavation which involve temporary dewatering will require a bore licence under Part 5 of the Water Act 1912 (NSW) and consideration of the objects and water management principles of the Water Management Act 2000 (NSW). Bore licence application enquiries should be directed to Bruce Westbrook, Licensing Officer, Licensing North Branch, NSW Office of Water, telephone 4904 2578.

Any discharge of extracted groundwater from dewatering is required to be in accordance with the conditions of approval under the *Protection of the Environment Operations Act 1997* (NSW).

AN5. Structural Capability for Existing Structures

The structural capabilities of any existing structure will need to meet the requirements of the BCA and may require engaging a structural engineer.

AN6. Use of Mobile Cranes

The Proponent shall obtain all necessary permits required for the use of mobile cranes on or surrounding the site, prior to the commencement of works. In particular, the following matters shall be complied with to the satisfaction of the PCA:

- (1) For special operations including the delivery of materials, hoisting of plant and equipment and erection and dismantling of on site tower cranes which warrant the on street use of mobile cranes, permits must be obtained from Council:
 - (a) At least 48 hours prior to the works for partial road closures which, in the opinion of Council will create minimal traffic disruptions.
 - (b) At least 4 weeks prior to the works for full road closures and partial road closures which, in the opinion of Council, will create significant traffic disruptions.
- (2) The use of mobile cranes must comply with the approved hours of construction and shall not be delivered to the site prior to 7.30am without the prior approval of Council.

AN7. Construction Certificate

A Construction Certificate is obtained by completing and submitting the approved form to Council or an accredited certifying authority for approval. If the application form is approved by a certifying authority other than Council, the Proponent is required to lodge the Construction Certificate and other approved documents with Council a minimum two days prior to the commencement of work.

AN8. Occupation Certificate

- 1) Prior to the occupation and/or use of a new or altered building, an Occupation Certificate must be issued by the accredited certifier. Where Council is the accredited certifier, an Occupation Certificate will be produced after a satisfactory completion inspection using the information:
 - (a) Contained in the application for Construction Certificate.
 - (b) Required in accordance with clause 149 of the *Environmental Planning & Assessment Regulation 2000* (NSW).
- 2) Where the Occupation Certificate has been issued by a certifying authority other than Council, a copy of the Occupation Certificate and supporting documentation is to be submitted to Council within 2 days after the date of determination of the Occupation Certificate together with the document registration fee (in Council's pricing policy).

AN9. Signage

The Proponent should liaise with Council regarding the erection of any signage on or adjoining the site.

AN10. Disability Discrimination Act

This application has been assessed in accordance with the *Environmental Planning & Assessment Act 1979*. No guarantee is given that the proposal complies with the Disability Discrimination Act 1992. The Proponent is responsible to ensure compliance with this and other anti-discrimination legislation. The *Disability Discrimination Act 1992* covers disabilities not catered for in the minimum standards called up in the Building Code of Australia which references AS 1428.1 - Design for Access and Mobility. AS1428 Parts 2, 3 & 4 provides the most comprehensive technical guidance under the Disability Discrimination Act 1992 currently available in Australia.

AN11. Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* provides that a person must not take an action which has, will have, or is likely to have a significant impact on a matter of national environmental significance (NES) matter; or Commonwealth land, without an approval from the Commonwealth Environment Minister.

This application has been assessed in accordance with the NSW *Environmental Planning & Assessment Act 1979*. The determination of this assessment has not involved any assessment of the application of the Commonwealth legislation. It is the Proponents responsibility to consult Environment Australia to determine the need or otherwise for Commonwealth approval and you should not construe this grant of approval as notification to you that the Commonwealth Act does not have application. The Commonwealth Act may have application and you should obtain advice about this matter. There are severe penalties for non-compliance with the Commonwealth legislation.

End of this Section

SCHEDULE 3
STATEMENT OF COMMITMENTS

5.0 statement of commitments

As part of the EA, a draft Statement of Commitments (SoCs) was provided outlining the various mitigation methods to be adopted through the construction and on-going operation of the marina. Should the application be approved, these commitments will form either part of the Conditions of Approval, be adopted within the Construction Management Plan (CMP) or be enforced through the MEOMP.

The following SoCs include those originally proposed or amended where necessary as well as additional as seen fit within the environmental assessment of the application:

5.1 PLANS, DOCUMENTS AND APPROVALS

1. The Project will be completed in accordance with the submitted plans and descriptions of proposed development provided in this EA Report.

5.2 MOBILISATION OF SEDIMENTS

Construction

Sediment mobilisation during construction will be minimised by the following measures:

2. Enforcing a 'no wash' speed limit on vessels as they approach and move around the work site. This will form part of the final detailed construction management plan documentation.
3. Sediment mobilisation during pile installation will be reduced by the use of hollow steel piles, which displace less sediment than traditional wooden piles;
4. The use of silt curtains may be necessary to minimise the dispersal of sediment. However, care must be taken to ensure that the installation and operation of silt curtains does not inadvertently damage seagrass (e.g. silt curtain based chain contacting nearby seagrass);
5. Monitoring of water turbidity will be considered during the installation of piles, to ensure that no sustained or widespread increases in turbidity occur.
6. Silt fences and erosion control measures will be placed around the site for the car park.

Ongoing Presence and Operation

Mobilisation of sediments due to boats accessing the marina will be minimised by:

7. Enforcing a 'no wash' speed limit for vessels as they approach and move around the marina. This will be included on signage around the marina; and
8. Vessels with deeper drafts will be housed on the outer arm to maintain greater vessel clearance from the seabed.

5.3 IMPACTS TO WATER AND SEDIMENT QUALITY

Construction

Potential impacts on water quality during construction will be minimised by the following measures:

9. Accidental spillages of fuels and oils will be contained within floating booms and cleaned up as soon as possible to prevent weathering and subsequent deposition of heavy fractions; and
10. Construction teams will be prohibited from discharging sewage directly into Brisbane Water and bilge water before removing any oils using bilge pads.

Ongoing Presence and Operation

The following mitigation measures will be implemented to reduce potential risk of water contamination from boats:

11. Boat owners will be educated about the environmental problems associated with use of copper-based anti-fouling paints; discouraged from *in-situ* cleaning of boat hulls that have been treated with copper paints and encouraged to switch to non-toxic anti-fouling paints;
12. Accidental spillages of fuels and oils will be contained within floating booms and cleaned up as soon as possible to prevent weathering and subsequent deposition of heavy fractions;
13. The potential for introduction of contaminants during on board washing of boats could be reduced by encouraging the use of environmentally friendly cleaning agents (i.e. those that do not contain chlorine or phosphate-based ingredients);
14. Boat owners will be prohibited from discharging sewage directly into Brisbane Water and bilge water before removing any oils using bilge pads;
15. Marina users will be advised of the location of existing pump-out facilities in Brisbane Water to help mitigate any impacts arising from the disposal of sewage; and
16. A Marina Manager or representative is to be present on-site 7 days a week generally from 9am to 5pm to ensure the above mitigation measures are upheld. Outside of these hours contact details of the Office of Environment and Heritage (131 555) and off-site contact details of the Marina Manager are to be provided on signage.

5.4 DAMAGE TO HABITATS

Construction

To minimise the potential for damage to seagrass habitats during marina installation the following measures will be followed:

17. Construction teams will be made aware of the presence and distribution of this environmentally sensitive area as part of the detailed construction management plan documentation. This documentation will include the importance of seagrass habitat, and details on how and why to avoid damaging seagrass;
18. Construction teams will be prohibited from deploying anchors within seagrass due to the likelihood of causing damage; and
19. Construction teams will be made aware of the importance of avoiding navigating over seagrass, particularly in shallow areas. If movements over seagrass are necessary during construction then these should be done at high tide, while travelling slowly and ensuring that adequate clearance is maintained between seagrass and propellers.

Ongoing Presence and Operation

To minimise the potential for damage to seagrass habitats due to the movement of boats accessing the marina the following measures will be implemented:

20. Information (such as signage) will be provided to marina users on the presence and distribution of seagrass at the marina site (including maps). The importance of this environmentally sensitive area will be outlined and details on how and why to avoid damaging seagrass provided;
21. Boat owners to be prohibited to deploy anchors within seagrass;
22. Boat owners to avoid navigation over seagrass beds, particularly shallow areas; and
23. On-shore signage will be provided at the marina highlighting the presence and distribution of seagrass and creating a 'vessel exclusion zone'.

5.5 INTRODUCTION OR SPREAD OF MARINE PESTS

Prior to Construction

24. Amended: The area of *C. taxifolia* identified within the Aquatic Ecology Report will be removed in conjunction with NSW Fisheries, prior to any construction.

Construction

The risk of spreading *Caulerpa. taxifolia* around the construction site will be reduced through the following measures:

25. Information on why the spread of *C. taxifolia* is an environmental issue and how to avoid aiding its spread will also be provided;
26. Deleted: Through the implementation of amended SoC No. 24;
27. Amended: Any equipment is to be inspected before and after use to avoid the spread of *Caulerpa taxifolia* and any *Caulerpa taxifolia* collected on gear will be removed, bagged and disposed of with general refuse.

Ongoing Presence and Operation

To minimise the risk of *C. taxifolia* being spread around the marina site, or to other areas by the boats accessing the marina facility, the following measures will be implemented:

28. Any equipment is to be inspected before and after use to avoid the spread of *Caulerpa taxifolia* and any *Caulerpa taxifolia* collected on gear will be removed, bagged and disposed of with general refuse; and
29. Details on why the spread of *C. taxifolia* is an environmental issue and how to avoid aiding its spread to be provided to Marina berth holders.

5.6 SHADING OF THE WATER COLUMN AND SUBSTRATUM

Ongoing Presence and Operation

Shading effects of the jetty, pontoons and walkways will be mitigated by:

30. Minimising the widening of the existing jetty;
31. Replacing the existing jetty boarding with ecostyle "sea grass friendly" polypropylene decking;
32. Keeping the length and width of floating structures to a minimum; and
33. Using mesh or similar material for floating structures to allow light penetration.

5.7 WAVE/TIDE/ESTUARINE FLOODING/SEA LEVEL RISE HAZARD MITIGATION

Ongoing Presence and Operation

Impacts of wave/tide/estuarine flooding/sea level rise will be mitigated by:

34. The existing jetty will be raised by no less than 0.5m from its existing level (to a minimum level of 1.55m AHD for the underside and approximately 1.75m AHD for the deck level); and
35. The proposed jetty will be designed for horizontal and vertical wave loads and be closed when waves over-top the deck.
36. Marina will be designed to withstand a current jointly occurring with waves with a speed of 0.1m/s.
37. A Flood Emergency Response Plan will be prepared for the site to address both present and 2050 flood risks for patrons of the marina.
38. The pontoons will as a minimum be designed so as to accommodate the 100-years ARI estuarine flood level for the 2050 planning horizon, by which time the structure will have reached the end of its design life.
39. The pontoons will be designed so as to attenuate wave activity in accordance with Australian Standard *Guidelines for design of marinas* (AS3962).

40. Any electrical services to be designed with estuarine flood levels in mind to ensure safety.

5.8 NOISE

Construction

Impacts of construction noise will be mitigated by:

41. The closest neighbouring residents will be notified of the proposed works. Particular emphasis should be placed on the time frame of the works. A contact name and phone number of a responsible person will be given out so that complaints can be dealt with effectively and efficiently. All complaints or communication should be answered.
42. During the liaison process notes will be made of any particularly noise sensitive times of day and care taken to avoid scheduling noisy works, particularly piling of the closest holes) at these times.
43. All personnel working on the job including contractors and their employees will be made aware of their obligations and responsibilities with regard to minimising noise emissions.
44. Contractors will familiarise themselves with methods of controlling noisy machines and alternative construction procedures. These are explained in AS2436-1981 "Guide to Noise Control on Construction, Maintenance and Demolition Sites".
45. Activities that are known or have the potential to create excessive noise will, where possible, be scheduled to occur at times to cause least annoyance to the community. Carrying out such work during early morning will be avoided. This includes start up and idling etc. of heavy machinery prior to commencement of work.
46. Mechanical plant will be silenced using best available control technology. Noise suppression devices will be maintained to manufacturer's specifications. Engines should be fitted with appropriate, well maintained, high efficiency mufflers. Particular emphasis should be placed on the use of exhaust silencers, covers on engines and transmissions and squeaking or rattling components. Excessively noisy machines should be repaired or removed from site.
47. Machines which are used intermittently will either be shut down in the intervening periods between work or throttled down to a minimum.
48. Construction for the entire project will be restricted to the following hours:
 - Monday to Friday 7:00am to 6:00pm
 - Saturday 8:00am to 1:00pm
 - No work on Sundays or Public Holidays
49. Conducting piling only after 9.00 am, and include respite periods.

5.9 TOPOGRAPHY, GEOLOGY & SOILS

Construction

Impacts of construction to topography, geology and soils will be mitigated by:

50. The Construction Management Plan (CMP) prepared for the works will include an erosion and sediment control plan.
51. Erosion and sediment control measures will be consistent with those specified in the Blue Book - Managing Urban Stormwater: Soils and Construction (4th ed, Landcom, March 2004).
52. All erosion and sediment control measures will be established before excavation, demolition or vegetation clearance begins and are to remain in place until all surfaces have been fully restored and stabilised.
53. Sandbags will be placed at the entry points to any culverts and stormwater channels to prevent sediment entering the stormwater system.
54. Sediment control devices (eg silt fences, straw bales wrapped in geotextile etc) will be installed parallel with the contours of the site and immediately downslope of any areas where the natural ground surface has been disturbed.
55. Any spoil storage areas or stockpiles will have appropriate erosion control devices installed to control runoff and prevent sedimentation.
56. Sediment and erosion control devices will be inspected regularly, maintained to ensure effectiveness over the entire duration of the project, and cleaned out before 30% capacity is reached.

5.10 AIR QUALITY

Construction

Impacts of construction on air quality will be mitigated by:

57. Machinery and vehicles will not be left running or idling when not in use.
58. Odour or air pollutant emission complaints will be dealt with promptly and the source will be eliminated wherever practicable.
59. All work sites, general work areas and stockpiles will be closely monitored for dust generation and watered down (with clean water) or covered (via seeding or tarpaulins) in the event of dry and/or windy conditions.

5.11 WASTE MANAGEMENT

Ongoing Presence and Operation

60. Waste management on site will be in accordance with Gosford City Council's Development Control Plan 106 (Waste Management Controls) and Waste Classification Guidelines (EPA 2008), Environmental Guidelines: Best Management

Practice for Marinas and Boat Repair Facilities (EPA 1999) and in accordance with the requirements of the Marine Industries Association of Australia: Clean Marinas Handbook.

5.12 EMERGENCY SERVICES

Ongoing Presence and Operation

61. Upon completion of the marina, access keys will be provided to the NSW Water Police and NSW Maritime to ensure the marina is available for 24 hour emergency access.

5.13 APPROVALS

Ongoing Presence and Operation

62. To identify the requirements for water and sewer services for the development, the developer will submit an application under Section 305 of the Water Management Act 2000 to Gosford City Council's Water and Sewer Department for their formal requirements for the issue of a Certificate of Compliance for water and sewer services under Section 307.

5.14 GENERAL

63. Additional: A Construction Management Plan will be adopted for the works and will outline the above relevant commitments and how these will be achieved.
64. Additional: A Marina Environmental and Operational Management Plan will be adopted for the proposal, and will outline the above relevant commitments and how these will be achieved.

CMP

The following Commitments have been included within an amended CMP (refer Attachment 9):

- 2, 4, 5, 6, 9, 10, 17-19, 25, 27 and 41-59

MEOMP

The following Commitments have been included within the MEOMP:

- 7, 8, 11-16, 20-23, 28, 29, 60 and 61

Conditions of Approval

The following Commitments can be included as Conditions of Approval:

- 1, 3, 24, 34-40, 62 - 64

- Note: 30-33 have been incorporated into the proposed plan and are therefore enforced through Condition 1.

The above commitments and mitigation methods can be added to; with any further requirements of the Department of Planning and Infrastructure, to be included as either Conditions of Approval, and/or to be added to the final CMP or MEOMP.