

## Marina Environmental and Operational Management Plan

Proposed 50 berth Marina

**Property:**

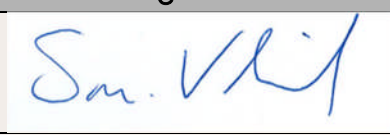
Koolewong Marina

**Date:**

December 2011

# Document Control

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Issue No.	Date	Author	
		Name	Signature
A	December 2011	Stephanie Van Dissel	

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**ATTACHMENT 1 - MARINA LAYOUT PLAN**

**ATTACHMENT 2 - MAP OF NEARBY FUEL AND PUMP-OUT FACILITIES**

## 1.0 General

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### 1.1 DESCRIPTION

Koolewong Marina is located in Murphy's Bay, part of Brisbane Water, Koolewong, NSW, Australia. The street address is Brisbane Water Drive, Koolewong.

The Marina has the following facilities:

1. 50 wet berths for vessels ranging in sizes from 8m to 21m in length;
2. Full security provided through CCTV surveillance, and secured entry to marina through individual key card access;
3. On-site car parking;
4. Recreation room and amenities located on the first floor within the existing Boathouse building; and
5. On-site Marina Manager/representative – able to assist in all boating and marina related questions.

The Marina layout and berth details are shown within Attachment 1.

### 1.2 HOURS OF OPERATION

The Marina will operate during the following hours:

Office	Summer	9.00 am to 6.00 pm - 7 days per week
	Winter	9.00 am to 5.00 pm - 7 days per week
Marina	24 hour key card access to berth holders	

### 1.3 RESPONSIBILITY

#### 1.3.1 Property Lessee (Gemsted Pty Ltd)

The Property Lessee is responsible for ensuring the Marina operations comply with the Conditions of Consent and other applicable Authority requirements.

#### 1.3.2 Manager

The Marina Manager/representative is responsible for ensuring that the day to day operations of the Marina comply with the Marina Environmental and Operational Management Plan (MEOMP) and for making Marina users aware of their obligations when using the Marina facilities.

#### 1.3.3 Owners and Lessees

The owners of vessels and the lessees of berths are responsible for ensuring that they comply with the rules of the Marina listed within the MEOMP.

#### 1.3.4 Temporary Berth Holders

The owners of vessels within temporary berths are responsible for ensuring that they comply with the rules of the Marina listed within the MEOMP.

### 1.3.5 Contact person

Marina Manager – telephone number to be advised.

### 1.3.6 In the Event of an Emergency

Emergency	Department	Contact No.
General Emergency	Fire brigade, police or Ambulance	000
Illegal dumping (on land)	Gosford City Council	(02) 4325 8222
Environmental Matters	Marina Manager or Office of Environment and Heritage	(TBA) or 131 555
Reporting non-compliances with MEOMP	Marina Manager	(TBA)

## 1.4 REVIEW

This document shall be reviewed by the Manager annually.

## 2.0 Environment

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### 2.1 MOBILISATION OF SEDIMENT

#### Manager

- The Marina Manager/representative will ensure that vessels with deeper drafts will be housed on the outer arm to maintain greater vessel clearance from the seabed.

#### Owners and Lessees/ Temporary Berth Holders

- Marina users will abide by the 'no wash' speed limit for vessels as they approach and move around the marina.

### 2.2 IMPACTS TO WATER AND SEDIMENT QUALITY

#### Manager

- 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. Floating booms will be located on site at all times.

#### Owners and Lessees/ Temporary Berth Holders

- The use of copper-based anti-fouling paints; in-situ cleaning of boat hulls that have been treated with copper paints is prohibited. Boats which at present are painted with copper-based anti-fouling paints are encouraged to switch to non-toxic anti-fouling paints.
- On board washing of boats are required to use only environmentally friendly cleaning agents (i.e. those that do not contain chlorine or phosphate-based ingredients).
- The discharging of sewage directly into Brisbane Water is strictly prohibited and those caught conducting such activities will be reported to the Department of Environment and Heritage and could be subject to significant fines. A list of available pump-out services is provided within Section 9.
- The discharging of bilge water before removing any oils using bilge pads is strictly prohibited.
- No fishing, swimming or diving (except for the cleaning of hulls) from marina or jetty.

### 2.3 DAMAGE TO HABITATS

#### Manager

- In the event of accidental spillages of fuels and oils, the Manager or representative, will contain spills within floating booms and clean up as soon as possible to prevent weathering and subsequent deposition of heavy fractions.
- The Marina Manager/representative will ensure a "Marina Spill Kit" including floating booms are located on site at all times.

- The Marina Manager/representative will undergo a course in operating the spill kit.
- The Marina Manager will ensure that on-shore and off-shore signage, highlighting the presence and distribution of seagrass, and creating an 'exclusion zone' as depicted in Figure 1 below and in accordance with the Signage Plan, is provided.

#### Owners and Lessees/ Temporary Berth Holders

- Boat owners/lessees are to have regard for the marina vegetation depicted within Figure 1 and are to avoid deploying anchors or navigating over seagrass (*P. australis*, *Z. capricorni* – Zos3CL, Zos3CS, Zos2BM) – known as the "EXCLUSION ZONE".

#### ***Importance of avoiding damage to seagrass***

*Seagrass meadows are the nursery grounds for many of Australia's commercial fish and crustacean species. The juveniles come into the seagrass meadows for protection against predators and to feed.*

*Seagrass leaves act as a filter by slowing the overlying water and allowing any sediment that is suspended in the water to settle therefore providing clearer water to support the various fish and shellfish present in Brisbane Water.*

*The seagrass *Posidonia australis* is listed as an endangered population in Brisbane Water and therefore its protection is of the utmost importance to both recreational and commercial fishermen and the general health and enjoyments of the Brisbane Water ecosystem.*

*The management team at Koolewong Marina strives to instill the significance of seagrasses and their protection to all users of the marina and surrounding areas.*



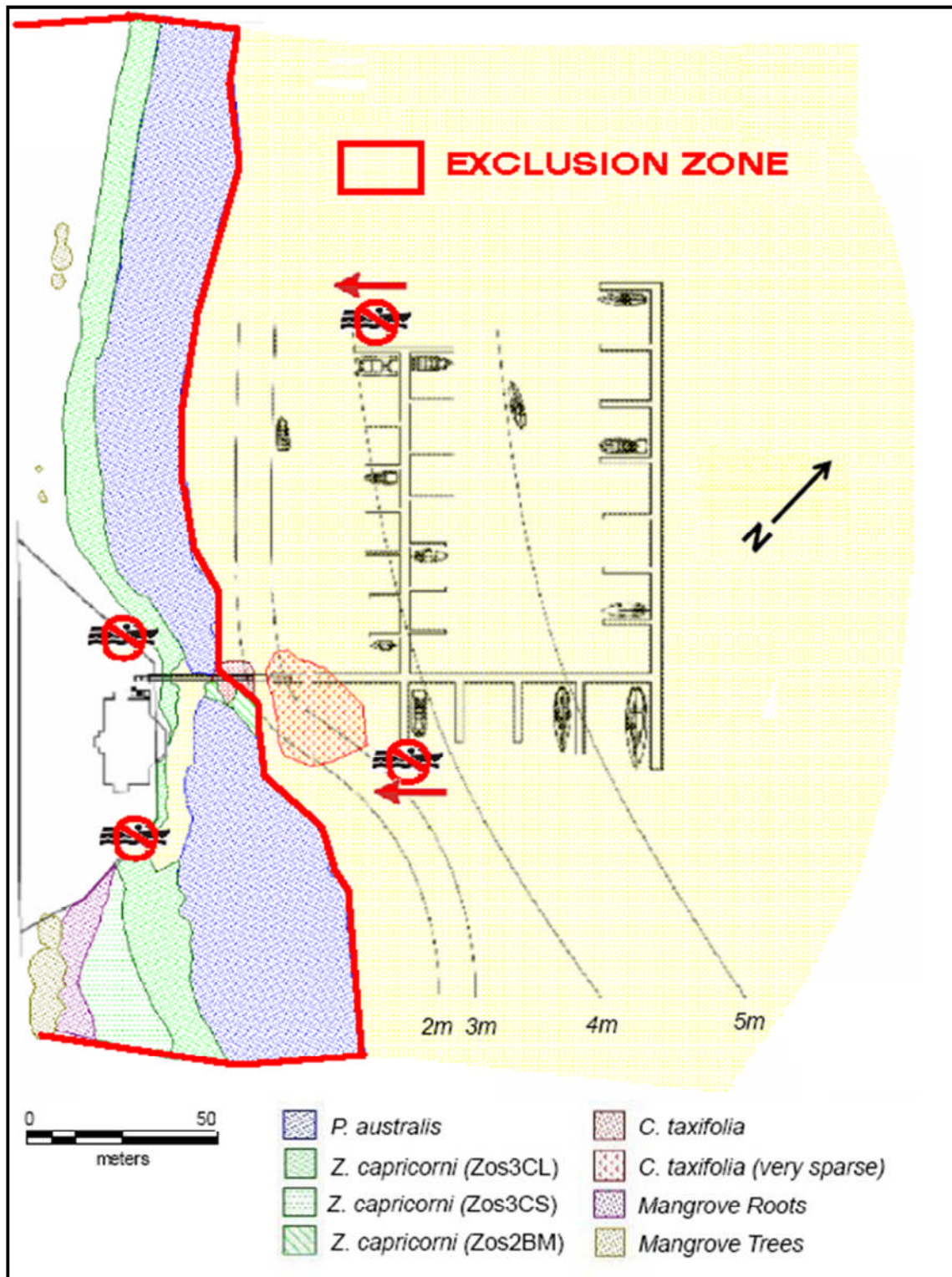


Figure 1: Exclusion Zone to avoid damage to seagrass

## 2.4 INTRODUCTION OR SPREAD OF MARINE PESTS

### Owners and Lessees/ Temporary Berth Holders

- 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.

#### *Importance of preventing the spread of Caulerpa taxifolia*

*Caulerpa taxifolia* is easily spread, can grow rapidly and can potentially out compete native seagrasses (discussed above).

*Boats can act as vectors for marine pests and algae which can be transported via anchor chains and fishing gear.*

*The management team at Koolewong Marina strives to instill the significance of seagrasses and their protection to all users of the marina and surrounding areas.*

## 3.0 Noise

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### 3.1 RIGGING

#### Owners and Lessees/ Temporary Berth Holders

- Marina berth users are to secure all lines, rigging and halyards so as to minimise the risk of noise from rigging slap and the like.

#### Manager

- In the event of rigging and halyard noise occurring upon an unattended vessel, Marina Manager/representative may board the offending vessel for the purpose of attenuating the cause of the noise.

### 3.2 ENGINES, POWER TOOLS AND EQUIPMENT

#### Owners and Lessees/ Temporary Berth Holders

- While vessels are moored in the Marina the use of generators, or the running of engines will not be permissible for purposes other than preparing the vessels for departure and checking that boat equipment is functioning.
- The running of generators and engines for checking boat equipment is only permitted between 7.00am and 6.00pm.
- The use of power tools by boat owners will be permitted only between 9.00am and 6.00pm Monday to Friday and 9.00am and 12.00pm on Saturdays.
- Unless required for safe navigation, “bow thrusters” are not to be used in the Marina or the approaches between 10.00pm and 8.00am.

## 4.0 Lighting

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### Manager

- The Manager will ensure the lighting for the Marina will be low voltage marina POD lighting that will turn on at night, along with motion activated spot lights. All lighting will be shielded such that light is directed downwards onto the walking surfaces and boats.
- Bollard lights on the floating structure will turn on at dusk and turn off in the mornings.
- With the exception of bollard lights and navigation lights on the Marina, all lights on the Marina will be turned off outside Marina operating hours.

### Owners and Lessees/ Temporary Berth Holders

- It will be a requirement for mooring vessels in the Marina, that once berthed, all navigation lights are turned off.

## 5.0 Waste Management

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### 5.1 SOLID WASTE

#### Manager

- The Marina Manager/representative will arrange a suitable waste pickup frequency with a private contractor to ensure that there is sufficient waste storage capacity at all times for the general and recyclable waste generated by marina users.
- The Marina Manager/representative will ensure that the management of waste, on site, will be in accordance with the 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.
- The Manager/representative will, on a daily basis, collect all visible garbage or other materials discharged or blown into the Marina waters and dispose of such in the appropriate receptacles.

#### Owners and Lessees/ Temporary Berth Holders

- Marina users will ensure that all general and recyclable waste is placed in the provided relevant receptacles. Any illegal dumping either off-shore or on-shore will be reported to the relevant authority and significant fines may be applied.
- Cleaning or preparation of fish is prohibited from the marina walkways.

### 5.2 LIQUID WASTE – INCLUDING OILS, BILGE, FLUID

#### Manager

- The Manager/representative will undertake regular inspections of the waterways around the marina for detection of waste, debris, oil slicks, coloured dye and other matter. They will trace the source thereof where possible and report to the respective berth holder for immediate repair.
- The Manager/representative will observe all wash down activities. It will be a requirement that the washing down of vessels is undertaken using water only or water with an approved standard of bio-degradable detergent.
- The Manager/representative will ensure that all waste oil is collected in approved containers and disposed of at a designated onshore collection point.

#### Owners and Lessees/ Temporary Berth Holders

- Owners/lessees are to adhere to controls listed within Section 2 in regards to liquid wastes.
- Painting of vessels berthed at the Marina is prohibited.

## 6.0 Parking and Loading

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### Owners and Lessees

- Marina users are prohibited from parking in the marked tandem staff or restaurant patrons parking area.

## 7.0 Emergency and Essential Services

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### 7.1 FIRE

#### Manager

- Marina Manager/representative will attend education and induction sessions in fire fighting techniques and the use of fire fighting equipment.
- In the event of fire and/or explosion, appropriate emergency control procedures will be activated. These include:
  - Notify Management, fire authorities and emergency services immediately.
  - Quickly evacuate all persons to an Evacuation Meeting Point at which a "muster" can be taken if required.
  - Ensure all power is cut off.
  - Commence fire fighting activity in accordance with training instructions.
  - Where necessary, remove all surrounding mobile property, vessels and other portable items to a safe location.
  - Prevent the spread of fire water and fire water run-off by deployment of the booms onto the water to contain fire water area.
- The Manager is to ensure that there is an audible and visible alarm at the "shore end" of the main Marina arm which is activated by breaking a glass covered button located immediately outside the Marina office. The alarm is to be sufficiently loud and bright that it will be clearly discernible by people at all berths and arms of the Marina.
- The Marina Manager/representative is to undertake maintenance procedures for the Marina including scheduled testing of fire fighting equipment and systems.
- The Marina Manager/representative will ensure each vessel owner is provided with an emergency evacuation plan showing the locations of all emergency equipment.
- The Marina Manager/representative will ensure that personal floatation devices are located on the floating structure for use in the event of a fire or other emergency evacuation.

#### Owners and Lessees/ Temporary Berth Holders

- It is a requirement for mooring vessels in the Marina that there is a CO<sup>2</sup> or dry chemical hand held fire extinguisher on each vessel, as is required by NSW Maritime for the registration of a vessel.
- No welding or oxy-cutting operations to be undertaken within the Marina, or on board vessels.
- All vessels will be inspected for fuel, vapour and gas leaks. Inspections shall include bilges, for fuel system leaks, gas equipment and lines, for integrity.

## 7.2 EVACUATION

### Manager/ Owners and Lessees/ Temporary Berth Holders

- Should a situation develop where emergency evacuation of people from the Marina is required, the Marina Manager/representative will activate a sound alarm.
- Where a safe path off the Marina is available, all people on the Marina will be directed to go directly to the Emergency Meeting Point (yet to be determined).
- In the event that a safe path off the Marina is not available, then all people on the Marina will be directed to go to the Emergency Evacuation Point as directed by the Marina Manager/representative.

## 7.3 SPILLS

### 7.3.1 Spillages/Leaks

#### Manager

- In the event of a fuel spillage/leak, Marina Manager/representative will deploy the fuel containment boom and absorbent pads to clean up fuel spillage.

### 7.3.2 Sinking of Vessel

#### Manager/ Owners and Lessees/ Temporary Berth Holders

- It is a requirement of the Berth Agreement that the owners of the vessels supply Management with an access key to the vessel, which is stored in the lock up box located in the office (this is not a requirement for temporary berth holders).
- Any vessel found to be taking water and having potential to sink to be reported to Marina Manager/representative. If necessary it will be removed by Marina Manager/representative to shallow water, where pumps will be activated and remedial action taken to prevent sinking.
- Marina users will report to Management immediately any sinking of a vessel, or any vessel in danger thereof.

#### Manager

- Marina Manager/representative will inspect berthed vessels regularly for correct waterline position. In the event of any vessel appearing lower than its designated water line, Marina Manager/representative will contact the owner.
- In the event of a vessel sinking, Marina Manager/representative will deploy the floating boom to ensure containment of any fuel and oil released.



### 7.3.3 Discharge of Sewage, Bilge Water and Toxic Waste

#### Owners and Lessees/ Temporary Berth Holders

- The discharging of sewage directly into Brisbane Water is strictly prohibited and those caught conducting such activities will be reported to the Department of Environment and Heritage and could be subject to significant fines. A list of available pump-out services is provided within Section 9.
- The discharging of bilge water before removing any oils using bilge pads is strictly prohibited.

#### Manager

- In the event of a leak or illegal dump, any spillage will be cleaned up by or under supervision of Marina Management/representative.
- In the event of a sewage spill, Marina Management/representative will deploy the floating boom in order to contain the spread of the discharge during managed clean-up operations.
- Marina Management/representative will ensure that a floating boom of adequate size, together with approved fuel and oil absorbent material in ready condition, is stored in an appropriate location and readily deployable.
- Marina Management/representative will undergo training in the deployment and utilisation of the floating boom.
- Marina Management/representative will regularly inspect the waters around the marina for evidence of pollution.
- Marina Management/representative will ensure that an adequate supply of oil absorbent material is available on site in the event of spillage of bilge water.

## 8.0 Fuelling Facilities

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Given the proximity of the marina to nearby oyster farms, fueling facilities are not provided on site.

The following facilities are available for boat owners/lessee who require a fuelling service:

1. Machans Marina

- Located approximately nine kilometres to the SE;
- The Marina has a Caltex fuel outlet on the wharf offering premium unleaded and diesel.

2. Booker Bay Marina

- Located approximately nine kilometres to the SE;
- Available 7 days a week providing both diesel and premium petrol.

3. Killcare Marina

- Located approximately ten kilometres to the SE;
- Re-fuelling service available.

A map highlighting the above locations in proximity to the Koolewong Marina is provided as an attachment to the MEOMP.

## 9.0 Pump Out Facilities

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Given the proximity of the marina to nearby oyster farms, pump-out facilities are not provided on site.

The following facilities are available for boat owners/lessee who require a pump-out service:

1. Gosford Wharf

- Located less than six kilometres to the NE;
- Available 24 hours a day;
- Provides detailed instructions on how to pump-out your sewerage, and
- Provides a convenient and free service.

2. Gosford Sailing Club

- Located less than six kilometres to the NE;
- Fee based service.

3. Killcare Marina

- Located approximately ten kilometres to the SE;
- The sewerage pump out facility can be used at anytime during Killcare Marina's general business hours under supervision (Marina Operating Hours Monday to Friday 8:00am - 4:30pm, Weekends & Public Holidays 8:00am - 4:30pm (October til mid May), Closed Christmas Day, Boxing Day, New Years Day.
- Boat owners are welcome to use the facility outside business hours (24/7), however prior to the use of the facility, customers will undertake a safety induction program and agree to use the facilities in an appropriate manner
- Provides a free service.

A full list of pump-out services in the Hawkesbury and Broken Bay Region can be found at [http://www.maritime.nsw.gov.au/rec\\_boating/pumpout-Hawks.html](http://www.maritime.nsw.gov.au/rec_boating/pumpout-Hawks.html)

A map highlighting the above locations in proximity to the Koolewong Marina is provided as an attachment to the MEOMP.

## 10.0 Vessel Management and Navigation

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### 10.1 BERTH ALLOCATION

#### Manager

- The Marina Manager/representative shall be responsible for allocating berths for all vessels. This shall be recorded in the Marina office showing:
  - Berth Number; and
  - Owner's / Vessels Name.

#### Owners and Lessees/ Temporary Berth Holders

- Owners of vessels moored in the Marina will be required to complete and sign a Berth Agreement Form, which sets out the requirements for mooring a vessel in the Marina and includes agreeing to the terms provided within MEOMP.
- Vessels with bow thrusters will be allocated berths on the outermost or northern section of the jetty.

### 10.2 MOORING

#### Manager

- In the event of extreme wind and wave conditions (storms), Marina Management/representative will check the mooring lines and, where considered necessary, add storm mooring lines.
- Marina Management/representative staff shall conduct regular inspections of mooring lines to check for chafing and damage.

### 10.3 NAVIGATION

#### Owners and Lessees/ Temporary Berth Holders

- All vessel owners will be given a plan of the Marina setting out the navigation channels to and from the Marina.
- It will be a requirement for mooring a vessel in the Marina that the maximum vessel speed, when approaching, departing or manoeuvring in the Marina, shall be 4 knots, unless adverse weather conditions arise which necessitate higher speeds for vessel masters to maintain control over the vessel.
- In adverse weather conditions, only one vessel will be permitted in the fairway between berths at any one time.
- For the purposes of this MEOMP, adverse weather conditions are defined as situations where the 10 minute average wind speed is greater than 20 knots.
- Predicted weather conditions as provided by the Bureau of Meteorology will be posted on the notice board at the Marina.

## 11.0 Security and CCTV

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Security cameras placed on small masts at the eastern end of each arm. These security cameras will monitor the arms 24 hours a day / 365 days a year and are recorded on a hard drive computer.

The Security cameras will assist in monitoring vessel movements, weather and patrons activities.

## 12.0 Complaints

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### 12.1 REGISTER

The manager will be available to the public for feedback and discussion about the Marina operations and functions during business hours. A suggestions box is located on the Marina office door entrance for the manager to collect feedback from the public.

Outside normal operating hours, complainants will be able to call a designated number to advise of their matter.

## 13.0 Enforcement

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### 13.1 MARINA RULES

Marina users will be given a copy of the MEOMP. It will be a condition of the use of the Marina that users comply with the MEOMP.

### 13.2 BREACH OF RULES

Marina users will be served with a formal letter informing them on their infringements. This letter will act as a formal warning requiring them to rectify the infringement within 14 days notice of the letter issue date. Failure to comply with the formal warning will prompt a second and final letter/notice.

### 13.3 THREE STRIKES AND YOU'RE OUT

Marina users that do not comply with the second warning letter will be asked to leave the Marina. A notice will be posted on the Marina notice board and a formal third and final letter will be served to the user.

## attachment 1

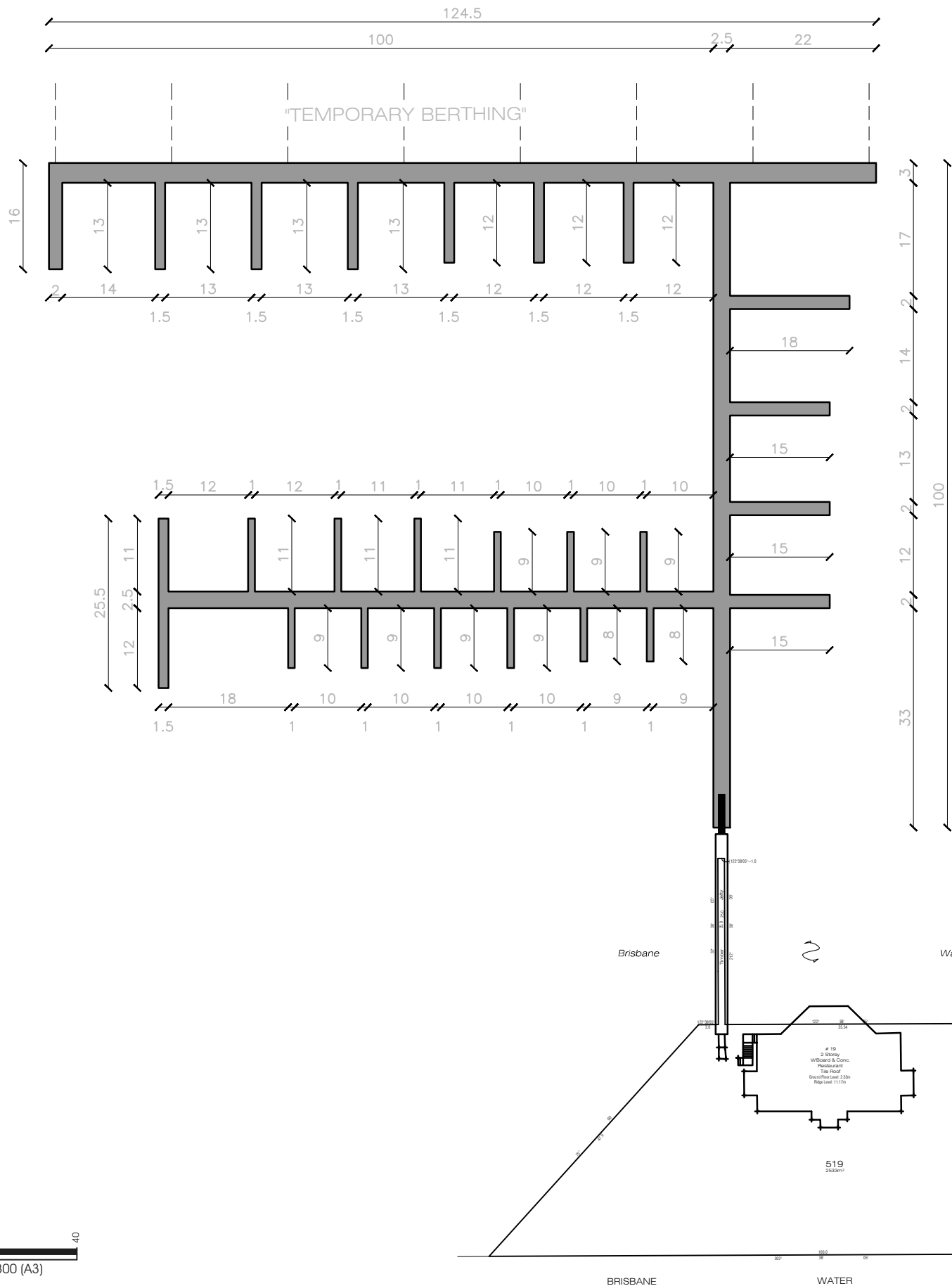
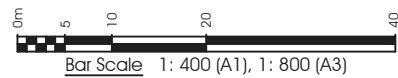
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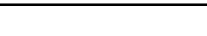
Marina Layout Plan



150134-SK-001-C

100mm AT FULL SIZE



REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY	SCALES		Central Coast 2 Bounty Close, P.O. Box 3717, Tuggerah N.S.W. 2259 Phone: (02) 4305 4300 Fax: (02) 4305 4399 email: coast@adwjohnson.com.au www.adwjohnson.com.au ABN 62 129 445 398	CLIENT	PROPERTY DESCRIPTION		PROJECT 150134 - BOAT HOUSE MARINA					
							PLAN TITLE											
A	9/07/10	PRELIMINARY ISSUE	KT	AC			PROPOSED MARINA LAYOUT											
B	19/08/10	MARINA REVISION	KT	AC														
C	20/08/10	MARINA - RAMP REVISION	KT	AC														
DESIGN FILE S:\							ALL DIMENSIONS ARE IN METRES. DO NOT SCALE				SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.		
											????	A.H.D.	150134 -	SK -	001	C		

## attachment 2

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Map of Nearby Fuel and Pump-out Facilities



