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**2<sup>nd</sup> ROUND OF FINAL COMMENTS ON THE  
MODIFICATION OF MAJOR PROJECT  
06\_0063**

**FOR**

**THE PROPOSED REDEVELOPMENT OF CRONULLA MARINA**

**AT:**

**60 Waratah Street, Cronulla**

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**ON BEHALF OF: NSW DEPARTMENT OF PLANNING  
Representative: David Kitto, Director, Major Development  
Assessment.  
23-33 Bridge Street, Sydney NSW 2000**

**Date of Issue: Issued as a Draft Document for Comment: Wednesday, June  
03, 2009**

**Cronulla Marina – Advice to the Director General**

Development Assessment

*Since 1993*

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## **Comments on the modifications made by the Proponent on Major Project 06\_0063, Cronulla Marina Extension.**

### **1.0 MARINA ISSUES**

The revised proposal submitted as a final and preferred option by the Proponent for Major Project 06\_0063 is detailed on drawing number 01384-CS-DRG-001 Rev 'C'. The design has not increased in size over that represented on drawings numbered 01384-CS-DRG-001 Rev 'A' and 01384-CS-DRG-002 Rev 'A'.

#### **1.1. Size**

The latest proposed Marina design is no larger than the layout proposed on drawings numbered 01384-CS-DRG-001 Rev 'A' and 01384-CS-DRG-002 Rev 'A'. As designed we are happy with this layout in relation to;

- Ferry movements.
- Equitable access to the waterways (subject to further requirements set out in this document being met).
- Environment.
- Navigation (subject to further requirements set out in this document being met).

#### **1.2. Vessel Berths Specified**

We had previously commented (report dated March 11 2009) that the vessel mix proposed by the Proponent could not be supported by current demand, current waiting lists or by a demonstrateable demand at other commercial marinas on the Port Hacking or the Georges River. Given our previous comment we have noted that;

- Cronulla Marina may want to set themselves apart from other commercial marinas by offering much larger vessel berths. The vessel size as proposed by the Proponent may prove to be a successful marketing technique. We know of few specialist large vessel marinas and concede that in the commercial marina industry such a vessel mix would attract the attention of large and medium vessel owners alike.
- Cronulla Marina may intend to use a percentage of large berths for vessel sales and as such, despite our previous view of vessel demand and mix it is reasonable to assume that within the next 10 years, upwards of 50% of the 20m and 18m vessel berths may secure vessels for sale.
- The current global economic downturn has seen a number of changes in the commercial marina and vessel market. These include:
  1. Larger vessels up to and including 20m in length being sold brand new, at second hand prices.
  2. Larger second hand vessels being sold at significant discounts.
  3. Commercial marinas outside of Sydney Harbour but within a 40 minute drive of the harbour are seeing vacancy rates decrease to zero percent. Large commercial Marinas in Sydney Harbour may charge upwards of \$5,000.00 per month for a 65' vessel berth (20m). An equivalent berth on the Port Hacking River may cost as little as \$1,100.00 per month for an annual saving of \$46,800.00 over the cost of a Sydney Harbour berth of the same size. We are now seeing a movement away from costly Sydney Harbour berths towards low cost Shire berths hence, the 100% berth take-up.

Given the above trends in berthing take-up and the potential for the vessel mix specified by the Proponent to set the Marina apart from other commercial marinas in the Sydney region we see merit in approving the vessel mix as specified by drawing number 01384-CS-DRG-001 Rev 'C'

### 1.3. The 17 by 8.4m Barge

The Proponent still proposes to berth a 17 by 8.4m barge in mooring pen number three (3). Once in place we doubt that this barge could be easily removed. The barge prevents casual berthing in accordance with AS3962-2001 opposite on the south western face of Arm 'A'. The barge does not conform to the minimum pen width required for a 17m by 8.4m beamed vessel as set out in AS3962-2001. We as such see the barge as a permanent platform and not as a moored vessel. The NSW Department of Planning may request planning approval should the barge be removed and the mooring pen be used to permanently berth two (2) 9m vessels as the total vessel count for the marina would increase.

### 1.4. Navigation Channels

Navigation channels are set by AS3962-2001 and as specified by the NSW Maritime Authority. We have amended our comments from our report dated March 11, 2009 below so as to review amendments made by the Proponent.

- Between Arm 'A' and the Hardstand – N/A, casual berthing.  
*No further comment required. The Proponent is responsible for the safe use and navigation by vessels in these waters.*

- Between Arms 'A' and 'B' – 11.02m between the 8m long house boats on the western edge of Arm 'A' and 9m berths on the eastern edge of Arm 'B'. AS3962-2001 requires a minimum of 1.5 times 9m or 13.5m. Mooring pens numbered 4, 5, 6, 7 & 8 need to be reduced in length to 8m for this navigation channel to meet Australian Standards. *We are unaware as to whether or not the four (4) houseboat vessels proposed for berthing in pens numbered HB1 to HB4 are the same four (4) houseboats planned for permanent berthing on the five (5) fore-&-aft moorings. Should these four (4) berths HB1 to HB4 be casual then the minimum interior channel requirement in accordance with AS3962-2001 is met. Should these four (4) berths be permanent then mooring pens numbered four (4) to seven (7) need to be reduced in vessel size from 9m to 8m in length. This vessel is taken from the following. Clear water width from Arm 'A' to Arm 'B' is 28m. Subtract 8m for the houseboats and 12m for the houseboat interior navigation channel and we are left with 8m as a maximum permissible vessel length in mooring pens numbered four (4) to Seven (7).*
- Between Arms 'B' and 'C' – 31.5m is detailed as an interior channel. AS3962-2001 requires 27m as a minimum and 30.6m as a preferred interior channel. This dimension can be reduced to as much as 27m reducing the total extent of the marina southwest into the Bay by 4.5m. We note the Proponents argument that catamarans will use this channel but drawings as supplied indicate twin mooring pens only and no catamaran pens. *No further comment needed. We are happy with the interior channel width.*

- Between Arms 'C' and 'D' – 26.25m is detailed with a minimum of 22.5m required. Given that a dedicated catamaran berth is located within the confines of Arms 'C' and 'D' we see no issue with the increased interior channel width. *No further comment needed. We are happy with the interior channel width.*
- Between Berths Numbered 1 and 2 and the adjoining public ferry wharf – a dimension of 15.852m is detailed by the proponent. The main walkway has been moved closer to the public ferry wharf by the proponent in this new modified design. Given the total distance between the eastern edge of the main walkway and the ferry wharf is 21.2m, the maximum vessel size that can be berthed in mooring pen numbered 1 and 2 is 11m long. The 12m vessel in berth number 2 needs to be downgraded to an 11m vessel and the 15m vessel in berth number 1 needs to be downgraded to an 11m vessel. *This recommendation remains as the Proponents final plan has not demonstrated these changes.*

#### 1.5. Northwestern Navigation Channel

As previously discussed in our report of March 11, 2009 the Proponent proposes a 30m wide navigation channel to the immediate northwest of Arm 'B'. This navigation channel increases in width to 36m northwest of Arm 'C' with a clear water width between structures northwest of a point half way between Arms 'C' and 'D' of 60m. We note that;

- The Proponent does need to ensure that the northwestern navigation channel specifically in the area fronting berths numbered 12 and 13 on Arm 'B' has a minimum depth to seabed at zero tide (to Indian Spring Low Water) of 1.0m.

- The NSW Maritime Authority had originally on May 7, 2009 issued a response to the Proponents layout requesting the removal of eight (8) berths from the marina. We met with the NSW Department of Planning and the NSW Maritime Authority on Thursday May 21, 2009 to review the rationale behind the deletion of these vessels. We noted that the NSW Maritime Authority was concerned re the loss of safe navigation width along the northwest of the proposed marina. Further discussion reduced the number of vessels to be removed from the proposed development from eight (8) to four (4) with berths numbered 33, 34, 57 and 58 to be removed. We noted that;
  - i) The NSW Maritime Authority supported the requirement that the Proponent ensure that the northwestern navigation channel, upon completion of the Marina construction, be a minimum of 30m wide and 1.0m deep at a zero tide to Indian Spring Low Water (-0.925m A.H.D.).
  - ii) The NSW Maritime Authority noted that the loss of the existing navigation channel running southwest out into the Bay from Tonkin Park Public Boat Ramp was due in its entirety, to the Proponent locating Marina Arms 'B', 'C' and 'D' across this existing navigation channel. The NSW Maritime Authority confirmed and agreed with our opinion that the design should incorporate a complete navigation channel solution.
  - iii) We agree with the NSW Maritime Authority's comment that they may require navigation makers to be placed to delineate the northwest navigation channel. Post Marina construction the NSW Maritime Authority can liaise with the Marina to ensure that these markers are installed as required.

- iv) The NSW Maritime Authority would prefer the five (5) fore-&-aft moorings noted as MB1 to MB5 remain as located on the Proponents plan number 01384-CS-DRG-001 Rev 'C' as they delineate the navigation channel. We agree with this view.

#### **1.6. Finger Width & Length**

We cannot confirm from plan number 01384-CS-DRG-001 Rev 'C' that fingers that may have been too short previously have been increased in length to meet the requirements of AS3962-2001. We therefore recommend that this issue be addressed in Development Application conditions of consent.

#### **1.7. Slipway Requirements**

After discussions with the NSW Maritime Authority, the NSW Department of Planning and the EPA, we are happy with the Proponent finalizing treatment systems during the completion of the Building Certificate and in negotiation with the relevant Authority in regards to the operation of the Marinas slipway. Note however that;

- The EPA is adamant that they will not support any pumping of any water into the Bay. All water collected on the slipway concrete surface including rainwater must go to a Sydney Water sewer system or be treated on site for re-use.
- We believe that two (2) full width grated catch drains should be installed at the lower end of the slipway. We have taken on board the Proponents comments of May 15, 2009 and recommend a full width grated catch drain at R.L.1.100 (A.H.D.) and R.L.1.225 (A.H.D.).

### **1.8. Fore & Aft Moorings**

As previously discussed we are in support of the NSW Maritime Authority's position that these be retained.

### **1.9. Dredging**

We have marked up drawing number 01384-CS-DRG-001 Rev 'C' following and have detailed an area of the Bay that will need dredging to ensure a 30m by 1m deep (at zero tide to Indian Spring Low Water) navigation channel. This issue has arisen as the Proponent has just confirmed that the hydrographic contours are to AHD and not to Indian Spring Low Water. As such these contours represent a seabed level to a datum 0.925m above zero tide and not to zero tide. Given this information we note that;

- The -1.0m contour to Indian Spring Low Water falls well within the 30m wide navigation channel.
- At zero tide an area of the 30m navigation channel will actually be exposed as a sandbar.
- An area of the seabed needs to be dredged to ensure a clear width of 30m at a -1.0m depth.
- Dredging batters need to be included in the dredging.
- The Proponents marina layout has triggered the need for the 30m navigation channel and as such we are of the opinion that they should be responsible for establishing this channel.
- Siltation issues predominantly associated with Councils storm water drains will more than likely silt up the navigation channel and as such Council should look to helping maintain this channel where and as required.

### **1.10. Draft Conditions of Consent**

We have reviewed the draft conditions of consent as issued by the NSW Department of Planning and note that;

- Of most importance is a Clause stating that the Marina must be designed and constructed strictly in accordance with all current and relevant Australian Codes and Standards. Specific attention must be given to dimensional and loading requirements set out in AS3962-2001.
- The conditions of development consent should include the removal of berths as required by the NSW Maritime Authority.
- The requirement for a navigation channel 30m wide by -1.0m deep should be included in the conditions of consent. We are happy for the Proponent to gain all approvals and complete all dredging works within a suitable timeframe post Council issuing a Construction Certificate.
- The conditions of consent should include meeting the NSW Maritime Authority's requirements for navigation markers.
- Post construction the Marina will need a detailed survey to ensure that it has been built strictly in accordance with the Development Application Approval and Construction Certificate.

Should you have any further questions regarding this project please feel free to contact my office.

Yours Faithfully



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**Joshua Stuart Parsons**  
**Director**

