



NSW GOVERNMENT
Department of Planning

MAJOR PROJECT ASSESSMENT: Reconfiguration of the Cronulla Marina



Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

July 2009

Cover photo: Aerial view of Cronulla Marina
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Published July 2009
NSW Department of Planning
www.planning.nsw.gov.au

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EXECUTIVE SUMMARY

Cronulla Marina Pty Ltd (Cronulla Marina) currently operates a marina at Gunnamatta Bay, Cronulla in the Sutherland local government area. The marina complex consists of 28 berths within a floating marina structure; 42 swing moorings; 4 house boat moorings; and land-based facilities including an office, toilet block and 2 slipways. In 2007, Sutherland Shire Council approved the redevelopment of the land-based component of the marina including the demolition of existing structures on site; the construction of a new 2 storey building, incorporating a café, marina office, and amenities; a retaining wall; vehicle access and landscaping.

Cronulla Marina now proposes to redevelop the water-based components of the marina. The proposal involves the extension of the existing wet berth marina complex by 51 berths (including 6 berths for small vessels), relinquishment of 42 swing moorings, relocation of 4 houseboat moorings as Fore and Aft moorings and the upgrade of the slipways and associated infrastructure.

The project has a capital investment value of \$1.6 million and would employ around 6 people once operational.

The proposal constitutes a 'major project' under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and consequently the Minister is the approval authority for the project.

The Department exhibited the Environmental Assessment of the project from 1 October 2008 to 3 November 2008, and received 37 submissions on the proposal: 7 from government authorities, and 30 from the general public including 5 from special interest groups.

Of the 30 submissions received from the general public, 15 objected to the proposal, 8 supported the proposal and 3 raised issues of concern.

Those objecting to the project were concerned about the overdevelopment of Gunnamatta Bay, impacts on navigation (particularly in relation to access to the boat ramp and the head of the bay), loss of public open space, visual impacts, loss of privacy, lack of community consultation and impacts on traffic, car parking, water quality and noise.

Those supporting the project consider that the proposal would provide for the more efficient use of the bay, allow public access to berthing facilities and associated infrastructure (fuel dispensing and sewage and oily bilge pumpout facilities), and reduce the environmental impacts of the existing marina through the removal of swing moorings.

The Department has assessed the merits of the project in detail with the assistance of an independent maritime engineer. This assessment has found that the:

- the proposal is generally consistent with the character of the bay;
- project generally complies with Australian Standards and NSW Maritime guidelines for marina structures as well as the Department of Environmental and Climate Change (DECC) guidelines for the operation of slipways and maintenance facilities, subject to some minor changes which can be made during the detailed design of the marina;
- project is unlikely to affect navigation, safety and public access within Gunnamatta Bay;
- visual impacts of the project are acceptable; and
- environmental impacts of the project can be suitably mitigated and managed.

The Department also considers that the project would have a number of benefits, including:

- the upgrading of recreational facilities of the Sutherland Shire by providing a modern marina for the recreational boating community, and catering for the growing demand for larger berths within the region;
- the removal of swing moorings which would open up a sizeable area within the bay for recreational and commercial purposes ;
- improving public facilities at the marina associated with fuel dispensing and sewage and oily bilge pumpout facilities and the provision of casual berths for small vessels;

- the provision of a designated navigational channel to the Gunnamatta Bay boat ramp providing for the safe navigation of boats that utilise this public facility; and
- improvements to the environmental performance of the existing facility.

On balance the Department considers that the project is in the public interest, and should be approved subject to conditions.

1. PROPOSED PROJECT

1.1 Background

Cronulla Marina is located within Gunnamatta Bay, on the northern side of Port Hacking, in the Sutherland Shire Local Government Area (see Figure 1). It has been operating for over 20 years with consolidation of the site in the mid 1990's, to incorporate a cafe and restaurant. The marina complex consists of 70 berths including 28 berths within a floating marina structure, 42 swing moorings, and 4 house boat moorings, as well as land-based facilities including an office, toilet block and 2 slipways.



Figure 1 – Regional Context

The area of the marina is leased from the Department of Lands, while the area of the swings moorings (including the 4 house boat moorings) is leased from NSW Maritime. The marina lease area covers approximately 5,500m², of which the water-based components cover an area of 3,950m². The 42 swing moorings cover an area of approximately 28,000m², with the eastern moorings covering an area of 16,000m² and the western moorings covering an area of 12,000m² (see Figure 5).

In 2007, Sutherland Shire Council approved a new two storey building (incorporating a café, office, and amenities) to replace the original buildings associated with the marina, which were destroyed by fire. The water-based marina operation was not affected by the fire, and was incorporated into the development application for the redevelopment of the land-based facilities.

Gunnamatta Bay is surrounded by the residential suburbs of Cronulla, Woolooware and Burraneer, many of which have views of the existing and proposed facility. The closest residences are located approximately 50m to the north-east of the marina complex at Tonkin Street (~100m north-east of the existing wet berths). Residences in Excelsior Road are located approximately 170m from the land-based components of the marina and approximately 110m from the existing wet berths (see Figure 2).

Other surrounding land uses, as depicted in Figure 2, include:

- Cronulla Wharf immediately to the south of the marina. This wharf is utilised by the Cronulla/Bundeena ferry, as well as commercial cruise/tour operators, charter vessels and fishing vessels. The public ferry wharf is currently being upgraded (under a separate Council consent);
- the Cronulla Sailing Club and private boat sheds approximately 50m to the south of the existing marina;
- Gunnamatta Baths and Gunnamatta Park (~150-250m to the south-east);
- a public boat ramp to the north, adjacent to the marina slipways;
- a public car park (~25m) and Tonkin Park (~70m) to the north; and
- Cronulla train station approximately 130m to the east.

The Port Hacking Royal Motor Yacht Club (70 berth marina) is located approximately 1km south-west of the Cronulla Marina within Gunnamatta Bay.



Figure 2 – Existing Complex (labelled yellow) and surrounds

1.2 Project Description

Cronulla Marina proposes to reconfigure and redevelop the operations at its marina by removing the majority of existing swing moorings (42 out of the 46 moorings would be removed) and extending the existing floating marina to accommodate 79 vessels. The proposal involves the extension of the existing 28 wet berth marina complex by 51 berths (including 6 public berths for small vessels), relinquishment of 42 swing moorings, placement of the 4 houseboat moorings with 5 Fore and Aft moorings (i.e., in a row), and the upgrade of the slipways and associated infrastructure.

During the assessment process, the design of the marina was modified to address concerns raised by the Department and NSW Maritime relating to consistency with Australian Standards for the design of marinas and navigational impacts. In addition, Cronulla Marina also identified significant demand for larger berths, due to the increasing size of catamarans being purchased. The boat manufacture and sales industry indicated the availability of large marina berths is limiting sales of these products. The Proponent subsequently increased the size of some of the proposed berths in light of this trend.

The major components of the project are summarised in Table 1. The original proposed marina layout is depicted in Figure 3, with the revised (and final) marina layout provided in Figure 4. The project is described in full in the Environmental Assessment (EA), which is attached as Appendix F.

Table 1: Major Components of the Project

Aspect	Description
Project Summary	The Cronulla Marina Project to expand the marina to accommodate 79 vessels. The project includes the relinquishing of 42 existing swing moorings, expansion of the floating wet berth marina complex to include an additional 51 berths, upgrade of the slipways and associated infrastructure.
<i>Marina Expansion</i>	<p>The marina expansion includes:</p> <ul style="list-style-type: none"> • extension of the existing wet berth marina complex by 51 berths, to a total of 79 berths including: <ul style="list-style-type: none"> – 73 wet berths (28 original berths plus 45 additional berths) to be located on 4 arms (A, B, C and D); and – 6 public berths for small vessels (e.g., dinghies and rowboats); • replacement of 4 existing house boat moorings with 5 fore and aft moorings; • replacement of the fuel bowsers; and • installation of a oily bilge pumpout facility. <p>There would be no changes to the existing sewage pumpout facility.</p>
<i>Removal of Swing Moorings</i>	42 swing moorings would be relinquished (see Figure 5). Moorings would be removed via a crane on a barge, with divers to monitor the removal of the moorings.
<i>Upgrade of Slipways</i>	<p>The slipway upgrade includes:</p> <ul style="list-style-type: none"> • extension of the slipway rails by ~9m to allow 20m vessels to be slipped at the facility; • installation of a catch drain to collect water from the slipways; • installation of a water recycling system including a oil-water separator to treat water collected from the slipway and a 20,000L tank for water re-use; • relocation of the approved retaining wall; and • installation of a 12m high awning over the slipways. <p>The upgrade of the slipway would require the relocation of the loading bay to the east by ~9m.</p>
<i>Boundary/lease Adjustment</i>	Expansion of the lease area to incorporate the additional berthing structures (an additional area of 10,480m ²) and the additional area required for the slipways (an adjustment of the eastern boundary adjacent to the slipways by ~9m).
<i>Employment</i>	Peak construction workforce of 14, with an estimated operational workforce of 6.
<i>Capital Value</i>	\$1.5 million
<i>Construction</i>	22 weeks
<i>Hours of Operation</i>	Operational services (fuel, slipway and maintenance) 7am – 7pm, 7 days a week. Marina berth holdings would have authorised access 24 hours a day, 7 days a week.

1.3 Project Need

Cronulla Marina considers that the expansion and upgrade of the marina is required to provide: a modern facility that meets current environmental standards for marinas; secure berths for vessels; and a larger cleared area at the head of the bay through the removal of swing moorings.

In addition, the expansion of the marina would provide public benefits such as a designated area for small vessels to berth in the bay, as well as fuel and oily bilge and sewage pumpout facilities.

2. STATUTORY CONTEXT

2.1 Major Project

The proposal is classified as a major project under Part 3A of the *Environmental Planning and Assessment Act 1979* (the EP&A Act) because it met the criteria of Clause 1 of Schedule 2 of the then *State Environmental Planning Policy (Major Projects) 2005* (Major Projects SEPP), namely Clause 1(d) development for the purposes of:

'marinas that are designated development and that are wholly or partly in a sensitive coastal location'.

The project is considered to be designated development as the marina would have a capacity of more than 30 vessels with a car park ratio of less than 0.5:1. In addition, the project would include works that would be carried out partly on land within a 100m above the mean high water mark of Gunnamatta Bay, which meets the criteria of a sensitive coastal location in the Major Projects SEPP.

It is noted that Major Projects SEPP was amended on the 1 July 2009. Under the now *State Environmental Planning Policy (Major Development) 2005* (Major Development SEPP), the proposal would no longer be a project to which Part 3A of the EP&A Act applies. However, under the savings and transitional provisions of the Major Development SEPP, this amendment does not apply to projects where project applications were received prior to 1 July 2009.

As the project application was lodged prior to 1 July 2009, the Minister for Planning is the approval authority for the project.

2.2 Permissibility

The site is located within Zone 16 - Environmental Protection (Waterways) of Sutherland Shire Local Environmental Plan (SLEP) 2006. The proposal is permissible with consent in this zone. Part of the area of the slipways is located in Zone 13 – Public Open Space. While the works proposed are not permissible in this zone, upgrade of the slipways is permissible on the basis of existing use rights (as per Sutherland Shire Council's approval of the land-based components).

Sutherland Shire Council raised concerns that the display and sale of boats is a prohibited activity in Zone 16 - Environmental Protection (Waterways) of SLEP 2006. Under SLEP 2006 a:

"marina means an arrangement of pontoons, jetties or the like, used as a business for providing moorings for boats, together with associated facilities, such as the following...."

The definition of "marina" in the SLEP 2006 clearly contemplates that there would be associated facilities and the definition contains a non exhaustive list of examples of such facilities. The Department considers that associated facilities can be the sale and display of boats. The Department is therefore satisfied that this aspect of the proposal is permissible with consent. Nonetheless, the Department has recommended conditions of approval limiting the number of berths that can be used for the display and sale of boats.

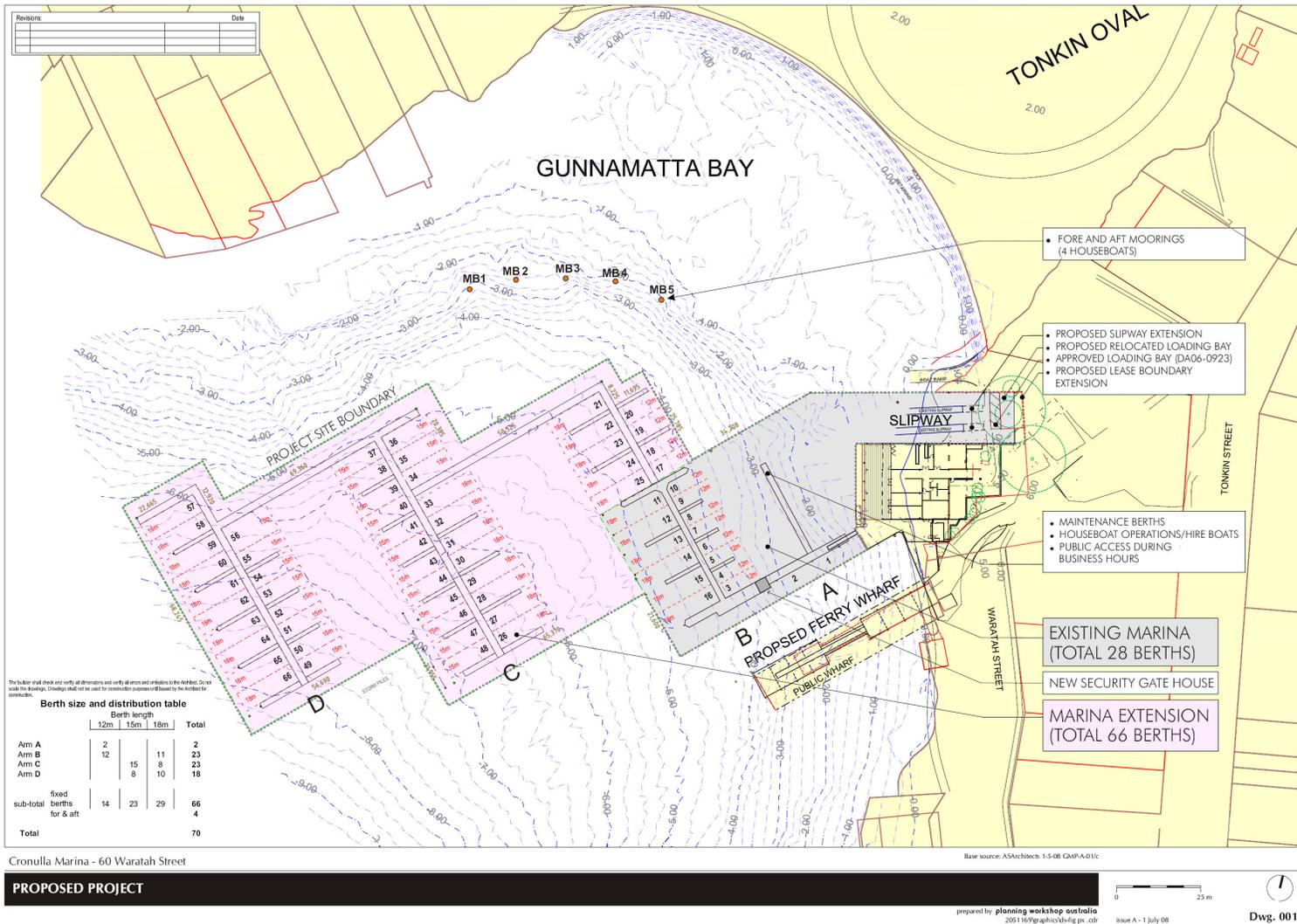
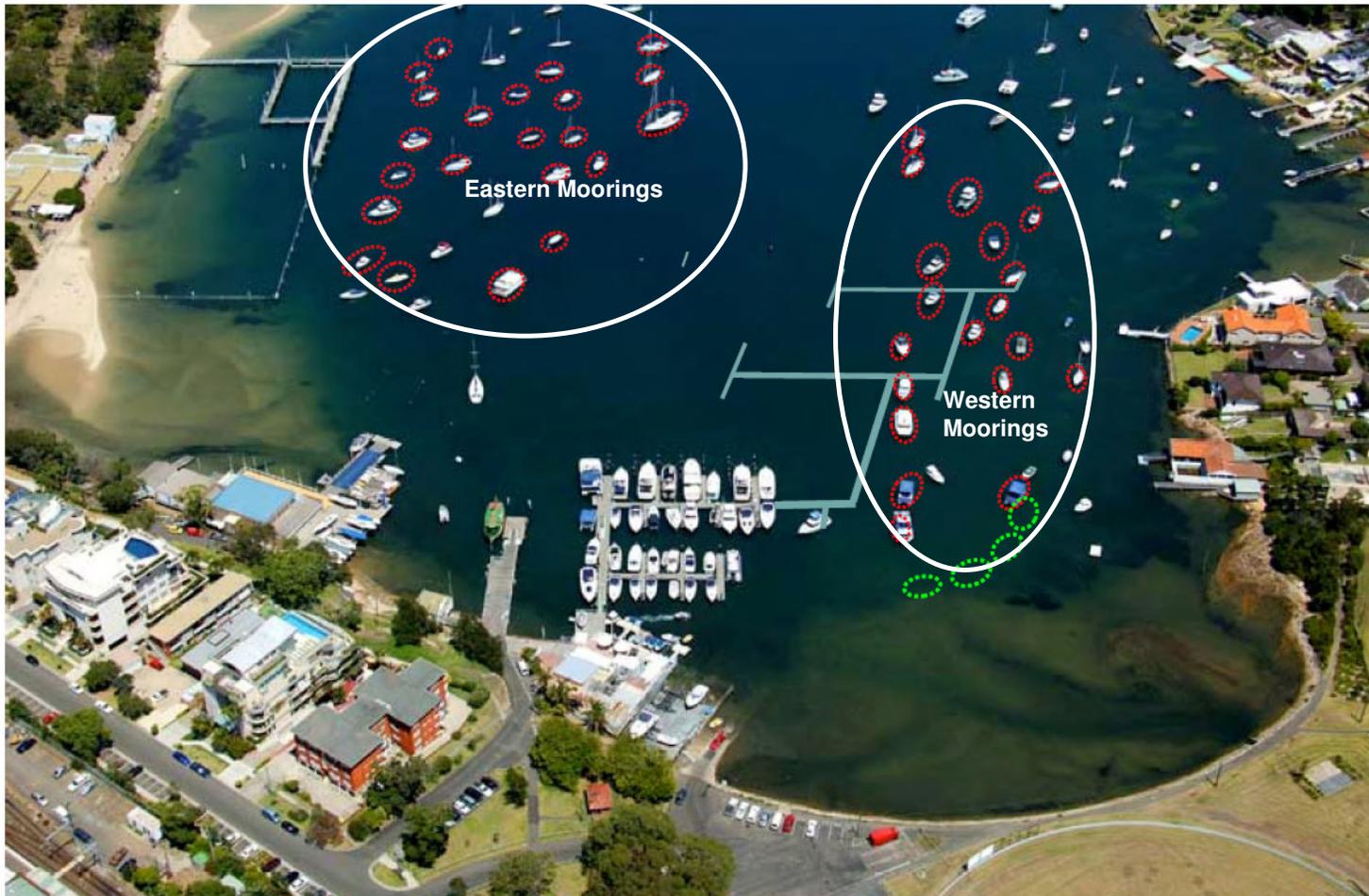


Figure 3 – Original Site Plan



Gary Blumberg &
Associates
J06-17/R75
Plot date: 5/6/08



APPROX LOCATION OF 42 SWING
MOORINGS TO BE RELINQUISHED



PROPOSED 4 FORE-AND-AFT
MOORINGS

NOTE – INDICATIVE ONLY AS
SOME BOATS ARE IN TRANSIT
OR AWAY FROM MOORINGS

RECONFIGURATION CONCEPT
FOR CRONULLA MARINA

Figure 5 – Location of the Swing Moorings to be Removed

2.3 Exhibition and Notification

Under Section 75H(3) of the EP&A Act, the Director-General is required to make the Environmental Assessment (EA) of a project publicly available for at least 30 days.

After accepting the EA for the project, the Department:

- made it publicly available from 1 October 2008 until 3 November 2008:
 - on the Department's website, and
 - at the Department's Information Centre;
 - at the Sutherland Shire Council's Information office; and
 - at the Nature Conservation Council;
- notified landowners in the vicinity of the site about the exhibition period by letter;
- notified relevant State government authorities and Sutherland Shire Council by letter; and
- advertised the exhibition in the St George and Sutherland Shire Leader.

This satisfies the requirements in Section 75H(3) of the EP&A Act.

2.4 Environmental Planning Instruments

Under Section 75I of the EP&A Act, the Director-General's report is to include a copy of or reference to the provisions of any:

- *State Environmental Planning Policy (SEPP)* that substantially govern the carrying out of the project; and
- environmental planning instrument that would (but for Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project.

The Department has considered the project against the relevant provisions of several environmental planning instruments (including *State Environmental Planning Policy (Infrastructure) 2007*, *State Environmental Planning Policy No. 55 – Remediation of Land*, *State Environmental Planning Policy No. 71 – Coastal Protection*, and the *Sutherland Shire Local Environmental Plan 2006*).

The Department is satisfied that, subject to the implementation of the recommended conditions of approval, the proposal is generally consistent with the aims and objectives of these instruments (see Appendix C).

2.5 Objects of the Environmental Planning and Assessment Act 1979

The Minister's consideration and determination of the application must be consistent with the relevant provisions of the EP&A Act, including the objects set out in the Act's section 5. The objects of most relevance to the Minister's decision on whether or not to approve the proposed project are found in section 5(a)(i), (ii), (iv), (vi) and (vii). They are:

The objects of this Act are:

- (a) *to encourage:*
 - (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
 - (ii) *the promotion and co-ordination of the orderly and economic use and development of land,*
 - (iv) *the provision of land for public purposes,*
 - (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
 - (vii) *ecologically sustainable development".*

The Department has fully considered the objects of the EP&A Act, including the encouragement of ESD, in its assessment of the application.

The assessment integrates all significant economic and environmental considerations and seeks to avoid any serious or irreversible damage to the environment.

Cronulla Marina has also considered a number of alternate designs to the proposed project (including the alternative of not proceeding), and considered the project in the light of the principles of ESD.

2.6 Statement of Compliance

Under Section 75I of the EP&A Act, the Director-General's report is required to include a statement relating to compliance with the environmental assessment requirements with respect to the project.

The Department is satisfied that the environmental assessment requirements have been complied with.

3. ISSUES RAISED IN SUBMISSIONS

During the exhibition period, the Department received a total of 37 submissions on the project:

- 7 from public authorities (Department of Primary Industries, Department of Water and Energy, Sydney Water Corporation, the Ministry for Transport, NSW Maritime, Roads and Traffic Authority and Sutherland Shire Council);
- 5 from special interest and community groups; and
- 25 from the general public.

A summary of the issues raised in submission is provided below. A full copy of these submissions is attached in Appendix E.

3.1 Public Authorities

The **Department of Primary Industries** (DPI), the **Department of Water and Energy** (DWE), **Sydney Water Corporation** (Sydney Water) and the **Roads and Traffic Authority** (RTA) did not object to the proposal and provided recommended conditions of approval. The **Ministry of Transport** also did not object to the proposal.

NSW Maritime (Maritime) considered that the initial design of the proposed expansion posed a hazard to navigation for vessels accessing the Tonkin Street boat ramp, and requested that the proposal be modified to address its concerns. Following the redesign of the proposal, Maritime is satisfied that navigational impacts have been addressed and has provided its recommended conditions of approval.

Sutherland Shire Council (Council) raised concerns that insufficient detail was provided in the EA. In particular, it raised concerns about the ongoing operations and compliance of the existing marina operations; noise associated with 24 hour access to the marina; management of contaminated sediments and acid sulphate soils; visual impacts; and potential use of the facility for boat sales which is currently prohibited. However, after reviewing the response to submission (see section 3.3 below), Council provided recommended conditions of approval.

The Department also received advice from the **Department of Environment and Climate Change** (DECC) that it would not be the regulatory authority for the project under the *Protection of the Environment Operations Act 1997*.

3.2 Community and Interest Groups

Of the 30 submissions received from the general public and community groups, 15 objected to the proposal, 8 supported the proposal and 3 raised issues of concern.

Issues raised in submissions from the general public related to the overdevelopment of Gunnamatta Bay, impacts on navigation particularly in relation to access to the public boat ramp and the head of the bay, loss of public open space, visual impacts, loss of privacy, lack of community consultation and impacts on traffic, car parking, water quality of the bay and noise.

The proposal was supported on the grounds that it would provide for the more efficient use of the bay and public access to berthing facilities, as well as reducing environmental impacts through the removal of swing moorings.

Submissions were received from the following special interest and community groups:

- **Cronulla Sailing Club** raised concerns about navigational impacts for its members;
- **Boat Owners' Association of NSW Inc, Sutherland Shire Marine Association** and the **Boating Industry Association of New South Wales Ltd** support the proposal as it would provide modern boating infrastructure, publicly accessible facilities, meet environmental requirements, and have public benefit; and
- **Tara Owners Corporation Executive Committee** objected to the proposal due to a lack of community consultation, visual impacts, traffic, public access to the boat ramp, and sediment contamination.

3.3 Response to Submissions

Cronulla Marina has provided a response to the issues raised in submissions. To address ongoing concerns relating to navigational and safety impacts Cronulla Marina revised its proposal and submitted a Preferred Project Report for the project. These have been made publicly available on the Department's website.

The Department has considered the issues raised in submissions, and Cronulla Marina's responses to these issues (including the revised design of the marina in the Preferred Project Report), in its assessment of the project. In addition, the Department engaged an independent maritime engineer to assist with its assessment of the design of the marina as well as navigational impacts (see Appendix E).

4. ASSESSMENT

4.1 Marina Design, Navigation and Public Access

Gunnamatta Bay is a popular recreation area and there are a number of public and private facilities within the bay. These facilities include:

- two public structures that are located in close proximity to the marina, the Cronulla/Bundeena Public Ferry Wharf (10-15m to the south of the marina) and the Gunnamatta Bay boat ramp (to the north of the marina, adjacent to the marina slipways);
- the nearby Cronulla Sailing Club which routinely holds events including learn to sail lessons as well as races/regattas in the vicinity of the Cronulla Marina;
- Gunnamatta Park Baths;
- a number of swing moorings; and
- two marinas – the Cronulla Marina and the Royal Motor Yacht Club.

Therefore, there are a number of competing users utilising the bay and the addition of structures (i.e., piles and floating pontoons) associated with the proposed marina expansion could impact on a number of these facilities, as well as navigation at the head of the bay (i.e., northern extremity of the bay).

One of the key concerns raised in submissions related to the potential over-development of Gunnamatta Bay, navigation and safety impacts from the construction of the marina structures within the head of the bay and impacts on public access to the nearby boat ramp. The Department therefore engaged an independent maritime engineer to review and assess the proposed marina design and its potential impacts.

4.1.1 Marina Design

There a number of guidelines available to assist in the appropriate design of marinas, covering structures (Australian Standards and NSW Maritime guidelines) as well as environmental performance for slipways and maintenance facilities (DECC guidelines).

The independent expert's initial review of the proposal against the Australian Standards for the design of marinas (AS 3962-2001 and AS 4997-2005) and NSW Maritime's guidelines for maritime structures indicated that:

- sufficient water depths is available for the manoeuvring of vessels;
- the fairway and berth widths are appropriate; and
- finger widths and lengths should be revised to comply with Australian Standards;

The independent expert also noted that as the lease area extends an additional 5m from the marina structures it would be possible for the outer face of the T heads and lengths of main walkways to be used for either casual or permanent berthing. The independent expert therefore recommended that these areas be designated as berths to negate the unlawful use of these areas for berthing once operational. In addition, the independent expert identified that the footprint of the marina could be reduced based on different vessel mix, primarily to minimise the navigational and visual impacts of the proposal (see below).

The Department subsequently requested further justification from Cronulla Marina for the proposed marina design. As Cronulla Marina had initiated the planning for the redevelopment of the marina in 2002, Cronulla Marina undertook a further survey of existing and potential clients to establish the demand for marina berth sizes. This survey indicated that there was demand for berths up to 20m in length. Consequently, Cronulla Marina revised its proposed marina design to address comments made by the Department's independent expert regarding the design of the marina as well as to accommodate the local demand for berths for larger vessels (see Figures 3 and 4).

Cronulla Marina has revised the layout to accommodate berths for nine 20m vessels by decreasing the number of berths for 18m and 12m berths. In addition, Cronulla Marina has increased the number of berths for 15m vessels. A comparison of the berth sizes as originally proposed compared to the revised proposal is provided in Table 2.

The Department recognises that there is a demand for berths for larger vessels (>15m) in Port Hacking. For example, other marinas within Port Hacking, including the St George Motor Boat Club, Dolans Bay Marina, and Burraneer Bay Marina, predominantly cater for vessels that are 15m and less, with limited infrastructure to accommodate larger vessels (>15m).

Table 2: Comparison of Berth Sizes Between the Original and Revised Proposal

Berth Length	Original Proposal	Revised Proposal
House Boats (~8m)	0	4
9m	0	4
12m	14	10
15m	23	35
17m	0	1
18m	29	11
20m	0	9
Total	66	73

The independent expert's final review of the revised proposal indicates that overall the proposed marina has generally been designed in accordance with Australian Standards and that suitable water depth is available for the marina. However, the independent expert has identified some minor non-compliance with Australian Standards in relation to the size of vessels proposed to be moored in berths 1 through to 7, which includes berths adjacent to the Cronulla/Bundeena Public Ferry Wharf (see Figure 4).

In this regard, the Department's recommended conditions would limit the size of vessel that could be berthed adjacent to the Cronulla/Bundeena Public Ferry Wharf and would require Cronulla Marina to ensure the marina is designed in accordance with Australian Standards during the detailed design phase for the project. In addition, the Department recommends that the fuel dispenser be covered with a roof or awning to prevent stormwater washing any spilt fuel into Gunnamatta Bay in accordance with best practice.

The Department is satisfied that the marina has generally been designed in accordance with Australian Standards and that suitable justification has been provided for the size and scale of the marina.

Slipway

The proposal includes the upgrade of the two existing slipways to meet current environmental standards. The upgrade would allow a maximum of 4 vessels to be serviced at any one time, with the largest vessel to be slipped being 20m. It would also include the addition of a catch drain at 0.98m AHD to prevent any contaminated water and solid waste from the slipways being washed into Gunnamatta Bay.

Water collected in the catch drain existing slipway would be transferred to a 5,000L tank prior to being treated through an oil-waste separator to remove sediments, oils and grease in accordance with DECC guidelines. Treated water would be stored in a 20,000L tank for reuse on site. In the event that treated water exceeds on-site requirements, this water would be discharged to sewer via a trade waste agreement with Sydney Water (see Figure 6).

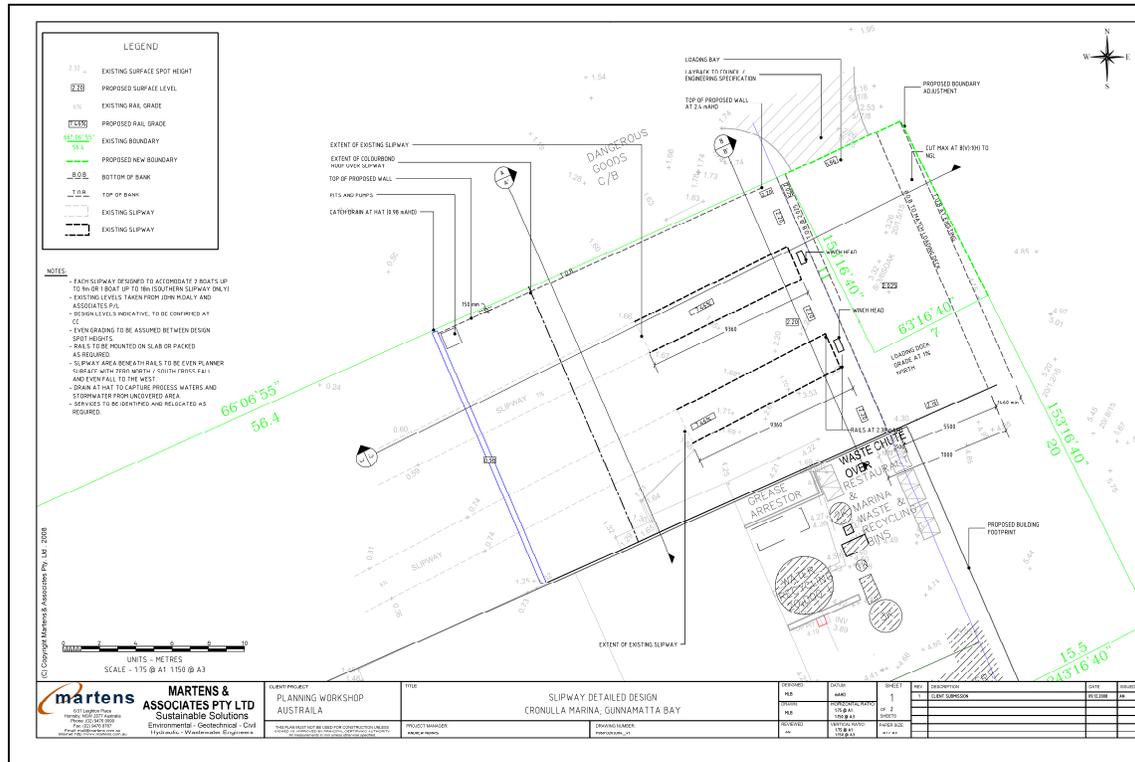


Figure 6 – Proposed Slipway Layout

The independent expert reviewed the slipway design against DECC’s *Environmental Action for Marinas, Boatsheds and Slipways* and Australia Standards. In general, the independent expert was satisfied that the proposed slipway facility would comply with these requirements and standards. However, was concerned that the proposed catch drain (at 0.98m AHD) would be covered during high tides, and recommended that it be positioned at 1.1m AHD and supplemented with a second catch drain at 1.225m AHD. With these changes in place the independent expert was satisfied that any contaminated water from the slipways would be captured during all tides, and that the water quality of Gunnamatta Bay would be suitably protected.

These requirements have been incorporated into the recommended conditions of approval. The Department is therefore satisfied that the slipway is appropriately designed and that the recommended conditions of approval would ensure that suitable environmental controls are in place to minimise any potential impacts on Gunnamatta Bay.

4.1.2 Navigation, Safety and Public Access

As previously discussed, there are a number of competing users within Gunnamatta Bay. Therefore, the proposed marina could affect the navigation and safety as well as public access at the head of the bay (i.e., the northern area of the bay). Concerns were raised in submissions that the proposal would:

- restrict access to a public waterway;
- reduce the navigation channel to the public boat ramp; and
- impact on the public ferry and commercial vessels utilising Cronulla Wharf.

In addition, concerns were raised that there was no guarantee that the swing moorings to be removed would not be replaced, further reducing navigable waters. NSW Maritime also considered that the width of the proposed marina would pose a hazard to navigation.

In assessing the proposal, the Department's independent expert:

- examined the location of the expansion in relation to the ferry berthing and disembarking from the public wharf;
- reviewed the users of Gunnamatta Bay to establish potential impacts of the proposal on these users; and
- assessed the impacts of the proposal on vessels navigating to and from the public boat ramp.

The independent expert's assessment indicates that:

- the removal of swing moorings would open up a sizeable area of water for commercial and recreational users (the swing moorings that would be removed cover an area of ~28,000m²);
- Cronulla Sailing Club would have a larger pond area for club members to sail in, with the removal of swing moorings allowing easier navigation at the head of the bay for novice and younger sailors;
- the proposal would not impact on the ferry berthing and disembarking from the public wharf and that the removal of the swing mooring would ensure that there is ample area for the ferry to navigate; and
- the proposal and in particular the extension of Arm B would require the existing navigational channel for the public boat ramp to be moved further to the north-west, resulting in vessels accessing the boat ramp having to navigate in shallower water and access to the boat ramp being restricted at low tide.

In light of the above, the key navigational and safety impact associated with the proposal relates to vessels navigating to and from the boat ramp. The existing navigational channel heads in a westerly direction from the boat ramp, and continues past the existing marina structures through the area of the proposed expansion. Therefore the proposal would require the navigational channel to move further north.

The *Marine Safety (General) Regulation 2009* outlines requirements for the safe operation of vessels in navigable waters, as well as near persons or objects in the water. This regulation does not strictly apply to Gunnamatta Bay (as it has a speed limit of 4 knots whereas the regulation applies to waters with a with a 10 knot speed limit), NSW Maritime believe it should be applied due to the high level of boat usage in the bay. The regulation requires a distance of 30m to be maintained between power driven vessels and the land or any maritime structure. In other words there should be at least 60m between the marina and any land-based structure.

To address the concerns of NSW Maritime and the Department, Cronulla Marina revised its proposal to ensure that there would be 60m between the lease boundary and the closest land-based structure (see Figure 7), allowing vessels sufficient area to navigate. This was achieved by relocating 4 vessels to the southern side of Arm D and reconfiguring the layout of the berths. This allowed the lease area to be moved 5m further south to achieve a 60m distance between the lease boundary and pontoons located to the north of the marina.

In addition, the revised proposal provides for a 30m navigational channel between Arm A and the fore and aft moorings. The independent expert considers that the 30m wide navigational channel would be sufficient for vessels that currently utilise the public boat ramp (vessels that can use the boat ramp are currently limited due to the narrowness of the ramp). The provision of a 30m navigational channel would also accommodate any upgrade of the boat ramp (including a duplication of the size of the boat ramp).

NSW Maritime has no objections to the revised site layout for the marina. In addition, NSW Maritime has no objections to the location of the fore and aft moorings, and consider that these moorings would not impact on vessels utilising the Gunnamatta Bay boat ramp, provided that navigational markers are installed along the northern boundary of the navigational channel for the boat ramp (see Figure 4). The requirement to install two navigational markers in accordance with NSW Maritime's requirements has been incorporated into the recommended conditions of approval.

The independent expert has also reviewed the revised site layout and considers that the changes to the proposed marina would allow sufficient area for the Cronulla/Bundeena ferry to berth and disembark from the public wharf. As such, the proposal would not impact on the Cronulla/Bundeena ferry movements, provided the vessels in berths 1 and 2 (i.e., directly opposite the ferry wharf) no greater than 11m (as previously discussed). This requirement has been incorporated into the recommended conditions of approval.

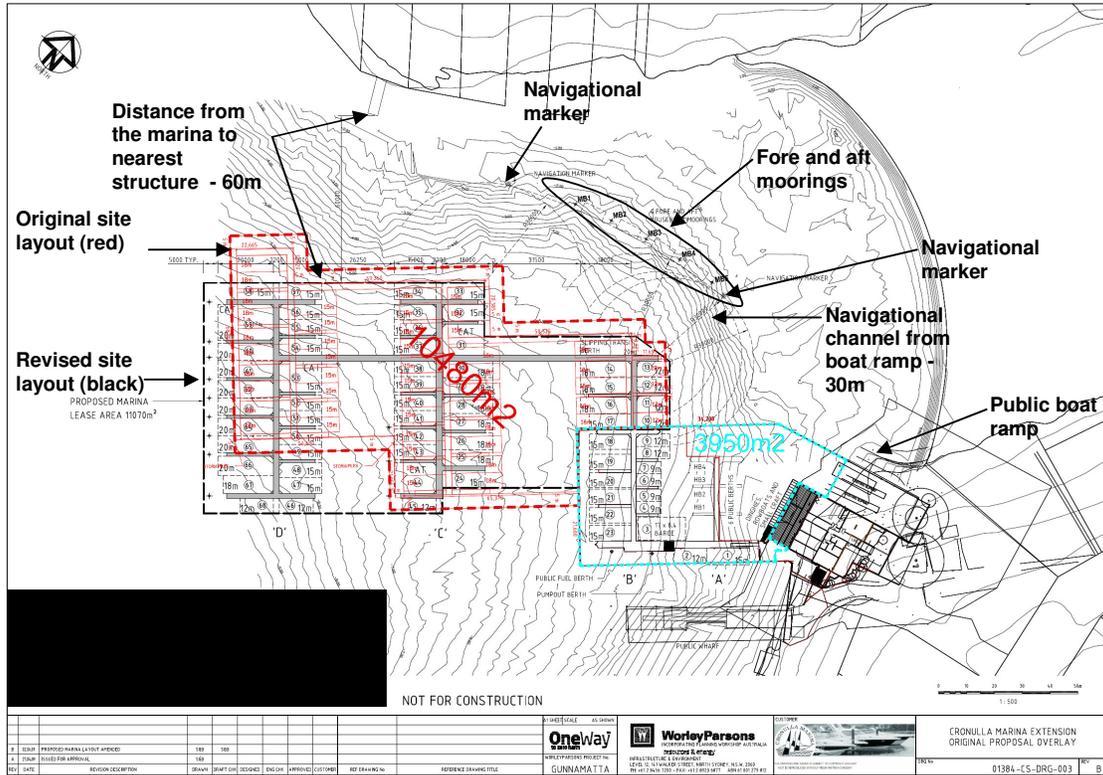


Figure 7 – Overlay of the Original (Marked in Red) and Revised Site Area (Marked in Black)

While the Department is satisfied that the proposal would allow sufficient area for vessels to navigate to and from the public boat ramp, the sedimentation of the head of the bay and other areas of Gunnamatta Bay is an ongoing navigational issue and is an issue that has been raised in submissions.

This issue was discussed with the DECC Coastal Unit who indicated that the sedimentation/siltation of the head of Gunammatta Bay is primarily due to prevailing winds and currents resulting in littoral sand drift (a naturally occurring process in coastal areas), rather than stormwater discharges to the bay. Sometime in the 1960s or 1970s, sediment from Gunnamatta Bay was dredged and deposited along the eastern foreshore areas of the bay for beach replenishment. Due to prevailing winds, the deposited material has moved north towards the head of the bay resulting in sedimentation/siltation of areas near Tonkin Oval, the public boat ramp, Cronulla Marina, the Cronulla/Bundeena Public Ferry Wharf and the Cronulla Sailing Club. Sedimentation will continue to accumulate in this area as it is the northern extent of the bay and as such the deposited material is unable to drift further north.

These comments are supported by studies commissioned by Council that indicate that the sediments at the head of Gunnamatta Bay in the vicinity of the Cronulla Sailing Club and Cronulla Marina are primarily marine sediments and not a result from urban discharges which can deposit suspended solids from the broader urban catchment.

While it is unlikely that Cronulla Marina is directly contributing to the sedimentation of Gunnamatta Bay, the proposal would result in an intensification of the bay, resulting in vessels accessing the public boat ramp having to navigate in shallower waters. As a result, access to the boat ramp could be

restricted during low tides. Consequently, the Department considers that the alternative navigational channel proposed (as discussed above) needs to be of a suitable depth to allow navigation in low tides. The Department has recommended conditions of approval requiring that the navigational channel has a minimum depth of 1m below zero Indian Spring Low Water, providing sufficient clearance for vessels accessing the boat ramp during low tide. In this regard, Cronulla Marina may need to dredge the channel to meet the required depth. However, any dredging would be subject to further assessment and approval. The recommended conditions of approval would therefore ensure that access to the boat ramp would be maintained.

However, the Department considers that as the sedimentation of Gunnamatta Bay predominantly relates to a natural process and the marina would not contribute to the sedimentation of the bay, that the maintenance of the navigational channel (i.e., any on-going dredging that may be required) should not be the responsibility of Cronulla Marina.

In relation to the uncertainty as to whether the swing moorings would be removed permanently, the Department understands that any proposal to replace the swing mooring would need to assess the navigational impacts of the placement of swing moorings on navigation and safety, and would be subject to an agreement between NSW Maritime and Council, as well as further planning approval. However, given the layout of the marina, it would be unlikely that swing moorings would be reinstated on the western and eastern sides of the bay, given the need to maintain navigable channels to the public boat ramp and public ferry wharf.

Overall, the Department is satisfied that the proposal design of the marina together with the recommended conditions of approval would ensure that the proposal would have minimal impact on the users of Gunnamatta Bay by:

- opening up a sizeable area of navigable waters for recreational and commercial purposes through the removal of swing moorings; and
- providing a designated and marked navigational channel with sufficient width and depth allowing the safe navigation of vessels to and from the public boat ramp.

4.2 Visual Impact

The proposed marina is located within Gunnamatta Bay which is characterised by maritime elements, including swing moorings and private jetties within the bay, the public ferry wharf, the existing marina and a public boat ramp. The foreshore of the bay supports low and medium density residential dwellings with large areas of public open space and some foreshore vegetation associated with Gunnamatta Park.

The potential for the proposed marina to visually impact residents, the general public and recreational users of Gunnamatta Bay is a key issue for assessment. Approximately half of all submissions raised visual impacts as a key issue (18 of 37 submissions), including the submission from Sutherland Shire Council.

Methodology

The EA assessed visual impacts by identifying key viewing locations from the private and public domain and developing a series of photomontages showing 'before' and 'after' development scenarios. From the photomontages, conclusions were drawn on the impact on views and the level of view loss. The assessment noted that most views of the proposed marina were experienced at elevations above mean high water mark ranging from 2 – 4m at residential properties on the north-western foreshore, 2m elevation from Tonkin Oval and 6-10m from residences on Waratah Street.

Potential Impacts

The EA assessed the visual impacts as negligible, concluding that views from:

- residences along the north-western foreshore would experience minor-moderate impacts;
- Cronulla public school, Tonkin Oval and the public carpark adjacent to the foreshore walk would experience minimal impacts;
- the foreshore walk in front of residences on Waratah Street would experience minimal impacts; and
- Gunnamatta Park and Baths would experience minimal impacts.

The Department reviewed the assessment in the context of:

- *Sydney Harbour Foreshores and Waterways Development Control Plan, 2005* (Guidelines for visual impact assessment, incorporating a visual assessment matrix);
- *Tenacity Consulting v Warringah Council, 2004 – Principles of View Sharing*; and
- *Addenbrooke Pty Ltd v Woollahra Council, 2008* (Land and Environment Court proceedings).

These documents were considered the most relevant for assessing the visual impact of the proposed marina as they provide a clear methodology and legal precedence for assessing the visual impact of marinas, and provide guiding principles on view sharing.

The proposed marina would constitute a considerable extension of the fixed berth structure, increasing from the current 28 berths to a total of 79 berths. However, the project would also result in the removal of 42 swing moorings from the eastern and western sides of the bay (see Figure 5). The land based development would involve an upgrade to the existing slipway including the addition of a 12.82m high roof structure attached to the marina building. The new marina building was approved separately by Sutherland Shire Council in February 2007 (DA06/0923), as depicted in Figure 8 and Figure 9 below. The new marina building would replace the existing land-based marina building.

The primary view locations likely to be affected by the project are shown on Figure 10 and include:

- views from public spaces such as Tonkin Oval and the foreshore (Deeban Walk); and
- views from residential properties on the north-western foreshore of the bay.

Views from other locations around the bay, such as Gunnamatta Park and Baths, and the residences along Waratah Street were considered less likely to be impacted as the baths and park are located a greater distance from the marina (approximately 200m) and the residences along Waratah Street have intermittent views through trees screening the marina, thereby reducing the potential for visual impacts.

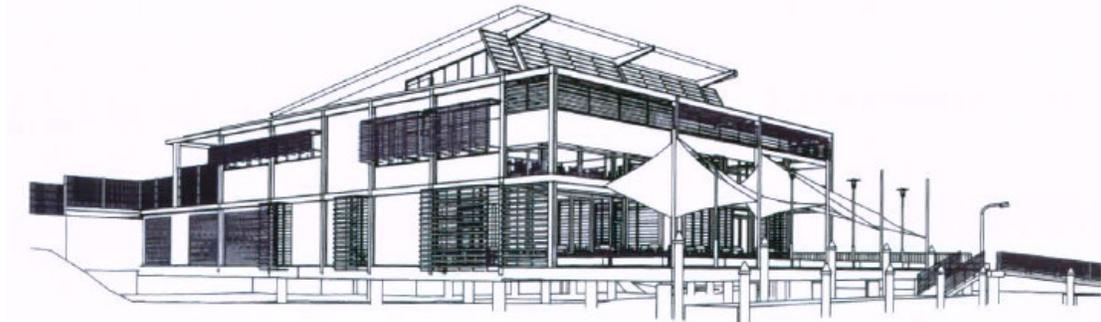


Figure 8: Artist's impression of approved marina building (Council approval DA06/0923)



Figure 9: Artist's impression of proposed slipway roof attached to approved marina building

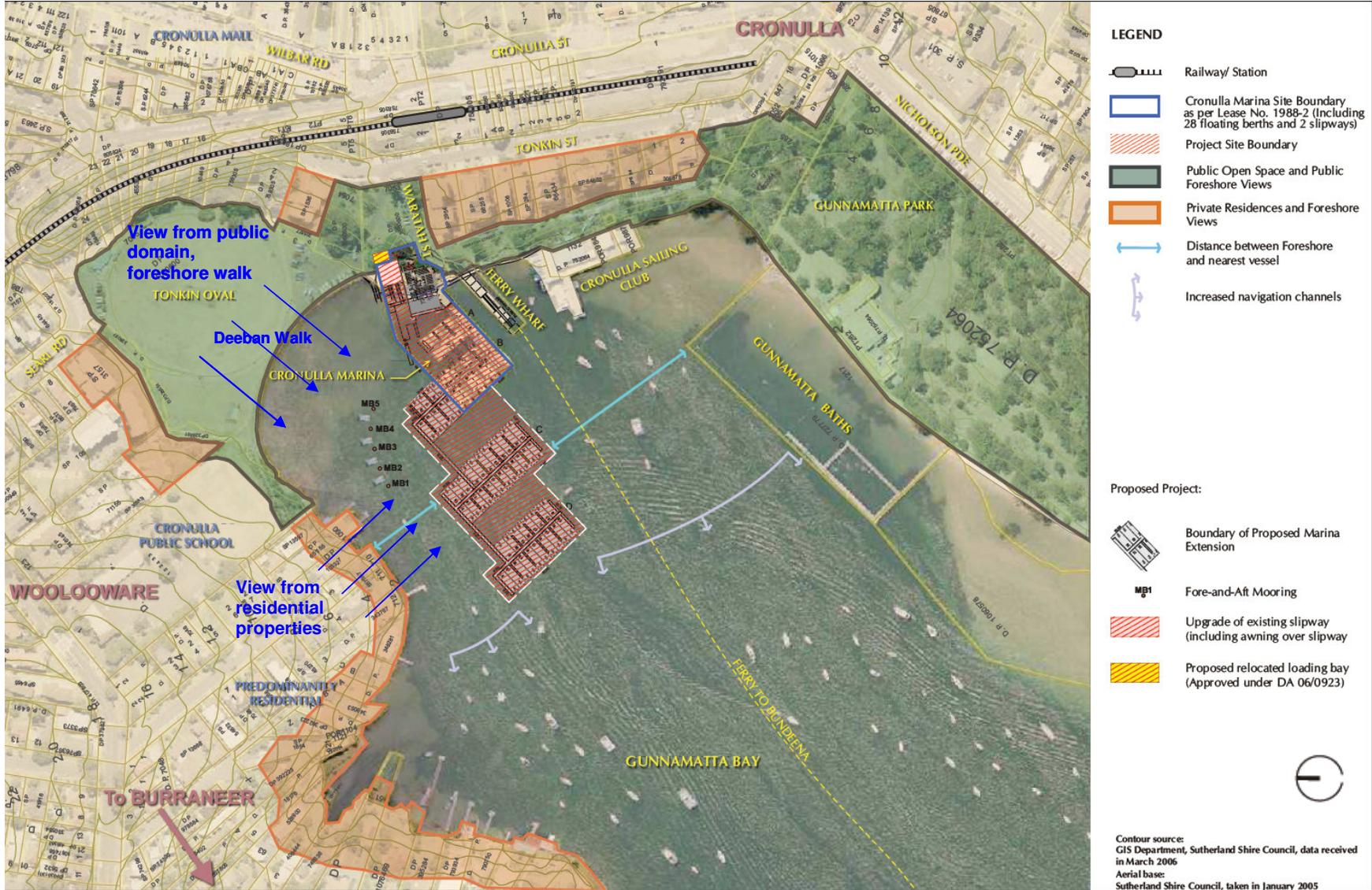


Figure 10: Primary view locations

As previously discussed, in assessing the level of visual impact as viewed from public spaces and residents, the Department considered the project against the criteria of the *Sydney Harbour Foreshores and Waterways Development Control Plan, 2005* (Guidelines for visual impact assessment) and the principles established in legal proceedings for assessing the visual impact of marinas and impacts on view sharing. The Department's consideration of the proposal against the above criteria and principles is provided in Table 3.

Table 3: Visual Impact Assessment

Source	Principle	Consideration
<i>Sydney Harbour Foreshores and Waterways DCP, 2005</i>	Size and number of vessels to be moored	45 additional vessels between 9m and 20m in length.
	Distance of view to receptor locations	60m to residences and 100m from the foreshore walk to the extended marina components.
	Approximate number of viewers	Six residences on the north-western foreshore. The number of viewers in the public domain would vary.
	Elevation of view locations	2-4m from residential locations and 2m from Tonkin Oval and the foreshore walk.
	Period of view	Permanent change to view from residences; view from public domain may range from 5 minutes to several hours, given the variation in times spent walking along the foreshore or attending sporting games at Tonkin Oval.
<i>Tenacity v Warringah Council</i>	Views to be affected	Water views would be affected. Water views are often more highly prized than regional or district views. No iconic vistas or structures are visible in the landscape of Gunnamatta Bay.
	Extent of impact	Loss of views from residences and public spaces considered to be minor as views would not be lost, but altered.
	Reasonableness of proposal	Extension of the existing marina builds on an existing maritime element within the Bay, meets the requirements of relevant design standards and would meet increased demand for berths.
<i>Addenbrooke v Woollahra Council</i>	Identification of key viewpoints, such as from the public domain	Key viewpoints are from the residences on the north-western foreshore and from the public open space of Tonkin Oval and the foreshore (Deeban Walk).

The Department concluded that the visual impacts of the marina extension and removal of swing moorings would be:

- moderate when viewed from the public spaces of Tonkin Oval and the foreshore walk (see Figure 15);
- moderate when viewed from the residential properties on the north-western foreshore (see Figure 14); and
- minor when viewed from other locations around the bay.

Visual impacts associated with the proposed roof structure over the slipway are considered minor, given it would adjoin the approved marina building which occupies a larger footprint and is of a similar height and architectural form. The structure also replaces an existing land-based marina element. The structure would comply with best practice guidelines for slipways in that it would minimise water pollution by separating clean stormwater from the slipway. It could also be argued that the upgraded slipway and boundary fencing would represent a significant visual improvement from the existing facility, which is degraded and outdated (see Figure 11 and Figure 12).



Figure 11: Photo of slipway, viewed from foreshore walk



Figure 12: Photo of slipway, viewed from public boat ramp

The extended marina elements would be lit using low wattage, pedestal type lighting, as shown in Figure 13. Visual impacts associated with lighting would be minimal given:

- the low light emissions from the marina boardwalks;
- the shielding provided by boats located on the western edge of the floating pontoons; and
- that residences are already subjected to surrounding light emissions from other residential premises, apartment blocks and the nearby Cronulla town centre.



Figure 13: Indicative pedestal lighting (shown day and night)

Significance of impacts

The significance of identified impacts was considered in the context of the existing visual character of the area. The head of Gunnamatta Bay comprises a mixture of maritime elements, such as the public ferry wharf, Cronulla Sailing Club, the existing Cronulla Marina, public boat ramp and numerous swing moorings. The area also supports large areas of public open space such as the foreshore walk, Tonkin Oval, Gunnamatta Park and Baths. The area contains a mix of medium and low density residential properties, with some private jetties. Cronulla train station is located close to the head of the bay. The bay itself is long, of moderate width and shows large areas of exposed sand during low tides. Part of the shoreline supports vegetation, primarily on the southern and eastern sides.

The proposed marina extension would essentially remove swing moorings and transfer boats onto fixed berths, with the marina structure extending approximately 120m into the bay in a north-westerly direction from the existing marina. The design of the marina is such that navigable channels remain for the public ferry on the southern side and the public boat ramp on the northern side. The marina structure would also provide some corridors of clear water space between the berth arms (see Figure 10).

Various submissions raised concern about the potential for swing moorings to be reinstated, thereby increasing visual impacts further. As previously discussed, swing moorings are managed by NSW Maritime and any application to reinstate them would be subject to separate assessment. However, the Department considers that it would be unlikely that swing moorings would be reinstated on the western and eastern sides of the bay, given the need to maintain navigable channels to the public boat ramp and public ferry wharf.

Some submissions raised concerns about the removal of two mature trees behind the existing marina building. Removal of the trees was approved by Council in February 2007 as part of the new marina building development and is not included in this project application.

The Department considers that the proposed marina extension is generally consistent with the character of the bay. The removal of swing moorings and transfer of boats onto floating berths retains a similar visual element in the landscape; however it is acknowledged that floating berths represent a bulkier structure than swing moorings. The view from residences on the north-western foreshore would be moderately impacted; however it is considered that these impacts would affect only a small number of properties (approximately six) as shown in Figure 14. Views from public open space along

the foreshore and from Tonkin Oval would also be moderately impacted and would affect a greater number of viewers, however the period of view would be shorter as people tend to move through the public domain or stay for short periods.

The Department concludes that the visual impacts of the project would be moderate but acceptable. There is limited scope to minimise visual impacts through design or mitigation measures, however, the Department recommends the following conditions:

- lighting of the marina would be designed to be unobtrusive and consistent with relevant Australian Standards; and
- the slipway roof structure must be constructed of a non-reflective material.

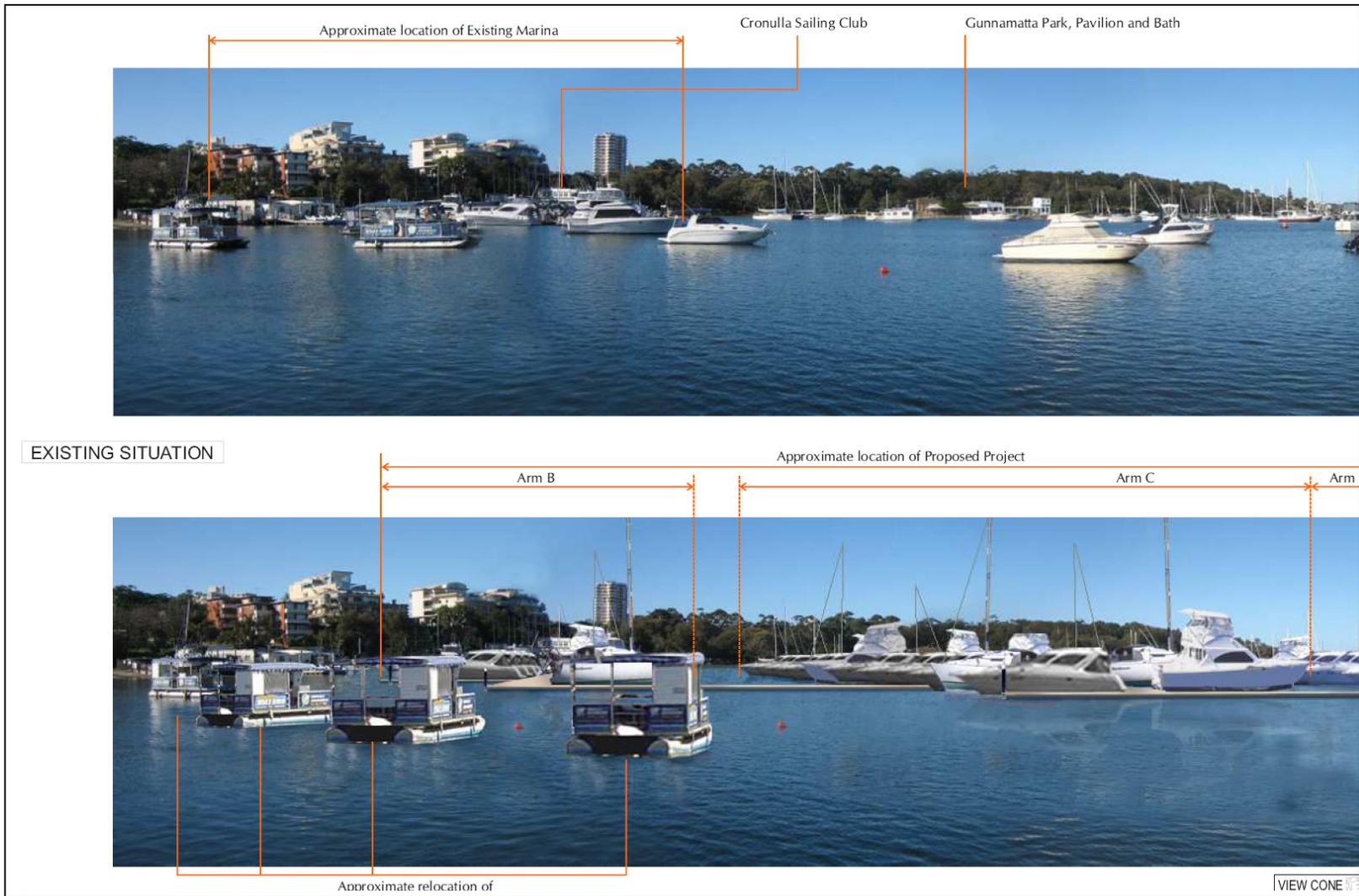


Figure 14: View from residents along north-western foreshore, before and after project



Figure 15: View from foreshore walk adjacent Tonkin Oval, before and after project

4.3 Other Issues

The following issues were also assessed and a number of conditions are proposed to ensure adequate management of these issues.

Table 3: Other issues

Issue	Key Impacts	Recommendation
Noise (Construction and Operation)	<ul style="list-style-type: none"> • The closest sensitive noise receivers are located 50m to the south of the marina on Tonkin Street and on the western side of the bay approximately 165m from existing slipways and 115m from existing wet births (Excelsior Street). • Construction activities that could impact on nearby residents predominantly relate to piling and installation of the floating marina structures, while operational activities relate to the operation of the slipway and maintenance facility, as well as third party noise from the use of the vessels. • Estimated that construction of the marina extension would take up to 22 weeks. • Noise levels during construction are predicted to exceed daytime noise design goals by 10-26dBA (resulting from truck movements and impact piling). However, noise emission would be intermittent with the noisiest activity (piling) being carried out over a short period (~4 weeks). • Noise emissions from the operation of the project were predicted to meet project specific noise goals. • The Department is satisfied that the recommended conditions of approval would ensure potential noise impacts are minimised and managed. 	<ul style="list-style-type: none"> • The Department recommended conditions of approval that would: <ul style="list-style-type: none"> - restrict hours of construction and operation; - set noise limits for the operation of the project; and - require Cronulla Marina to notify affected residents of potential noise generating activities prior to the commencement of construction.
Soils, Sediments and Water	<ul style="list-style-type: none"> • There is the potential for the construction and operation of the proposal to impact on the water quality of Gunnamatta Bay. • Potential construction impacts relate to the disturbance/oxidisation of acid sulfate soils (ASS) and contaminated sediments during construction piling, as well as erosion and sedimentation from the upgrade of the slipways. • Cronulla Marina has proposed a number of measures to minimise construction impacts including the installation of a containment boom and silt netting during piling activities as well as a erosion and sediment control measures during works on the slipways. • Operational impacts primarily relate to accidental spills (e.g. sewage, oily bilge, fuel and chemicals); and waste discharge from the slipways. • The 'water-based' development has been designed to meet AS 3962 – 2001 '<i>Guidelines for the design of marinas</i>' and the DECC's '<i>Environmental Action for Marinas, Boatsheds and Slipways</i>' 2007 to minimise water quality impacts during operation. • A Water Cycle Management System is proposed to prevent pollutants and waste discharging into Gunnamatta Bay from the slipways. • The proposal includes the provision for bilge water and sewage pumpout for the public, with 	<ul style="list-style-type: none"> • The Department's recommended conditions of approval would require Cronulla Marina to: <ul style="list-style-type: none"> - install the containment boom and silt curtain, as well as sediment and erosion controls prior to construction and in accordance with relevant guidelines; - prepare an ASS management plan in the event that ASS are disturbed during construction to manage any potential impacts; - only to discharge stormwater in accordance with the <i>Protection of the Environmental Operations Act 1997</i> or Council's approval for the land base facility; - discharge bilge pumpout water to the sewer in accordance with Sydney Water's requirements; and - store all chemicals, fuels and oils in bunded areas in accordance with Australian Standards and DECC guidelines.

	<p>the slipways to be upgraded to meet current environmental standards, providing water quality benefits for Gunnamatta Bay.</p> <ul style="list-style-type: none"> • The Department is therefore satisfied that the measures proposed by Cronulla Marina to manage water quality impacts on Gunnamatta Bay are appropriate. 	
Traffic	<ul style="list-style-type: none"> • There is a potential for traffic generation resulting from the project (an additional 40 – 50 vehicle movements) to impact upon the local road network. • There would be a minor increase in the number of vessels to be moored at the marina compared to the existing facility (an additional 9 vessels); • The traffic assessment indicates that the traffic generated by the project can be readily accommodated by the overall traffic network. • The proposal would rely on the surrounding public car parking and the assessment indicates that there is sufficient parking to accommodate the proposed minor increase in traffic. • Additionally it is expected that there will be a reduction in car-trailer parking demand associated with accessing the 38 relocated swing moorings. • The Department is therefore satisfied that traffic from the project would not significantly alter/exceed existing road capacity. 	<ul style="list-style-type: none"> • NA
Flora and Fauna	<ul style="list-style-type: none"> • A survey of the project site and head of Gunnamatta Bay identified three species of aquatic vegetation within the vicinity of the project site including the seagrasses <i>Zostera</i> and <i>Posidonia</i> and the noxious seaweed species <i>Caulerpa taxifolia</i>. A large number of benthic invertebrates were also identified at the project site. • The construction (changes to water quality and disturbance during piling and removal of swing moorings) and operation (changes to water quality and shadowing impacts) of the marina therefore has the potential to impact on these species. • A number of the swing moorings are located within the seagrass beds. Cronulla Marina propose to use divers to assist in the removal of the swing moorings to minimise impacts on seagrasses. • The Department is satisfied that the methods used for piling would minimise the area of disturbance, minimising impacts on benthic fauna. • The seagrasses are located some 16 to 47m from the marina structures and therefore the Department is satisfied that there would be minimal impacts from over-shadowing during the operation of the marina. • The Department concurs with the Proponent that the removal of swing moorings from the seagrass beds would have a beneficial effect. • The proposal is unlikely to impact on threatened or protected species. • The Department is satisfied that impacts from changes to water quality would be managed 	<ul style="list-style-type: none"> • The Department's recommended conditions of approval would require Cronulla Marina to: <ul style="list-style-type: none"> – ensure that the barge does not anchor in seagrass beds and as far as reasonable avoid the areas of <i>Caulerpa taxifolia</i>; and – prepare and implement an aquatic management plan outlining measures to minimise the fragmentation and spread of <i>Caulerpa taxifolia</i> as well as damage to <i>Posidonia</i> seagrass.

	<p>through the recommended conditions of approval together with Cronulla Marina's commitments (see above).</p> <ul style="list-style-type: none"> • The Department is satisfied that impacts on flora and fauna from the construction and operation of the project can be managed. 	
Waste Management	<ul style="list-style-type: none"> • As a fully operational marina, the project is expected to generate sewage, oily bilge water, solid waste, and chemical waste. • The existing sewage pump-out facility would collect sewage from boats and dispose it via the existing connection to Sydney Water sewer. • An oily bilge pump out facility is proposed and signage would be installed at the marina to advise boat owners to use this facility. Oily bilge water would be discharged to sewer, removed via a licensed contractor or pre-treated on site prior to disposal to sewer. • Solid and chemical waste would be collected on site and removed by licensed contractors. • The volumes of waste generated by the project would not be significantly different from the existing situation. 	<ul style="list-style-type: none"> • The Department recommends that a detailed waste management plan, confirming final disposal options of each waste stream be submitted prior to commencement of operation. • The Department is satisfied that waste from the project can be adequately managed to minimise impacts on the environment of Gunnamatta Bay.
Heritage	<ul style="list-style-type: none"> • Four heritage items are located within 300m of the marina, including Tonkin Park located immediately north and Cronulla Wharf stone steps located 50m to the south-east. • The project would not directly affect these items. • The Department is satisfied that the layout, scale and finish of the proposed slipway awning and marina extension would not impact on nearby heritage items. 	<ul style="list-style-type: none"> • NA
Air Quality	<ul style="list-style-type: none"> • Potential air quality impacts relate primarily to the operation of the slipways. • While the project involves the upgrade to the existing slipway, there would be no change to the activities currently being performed by the facility. • The Department is therefore satisfied that air quality impacts and emissions would be similar to the all ready approved. 	<ul style="list-style-type: none"> • The recommended conditions of approval would require Cronulla Marina to carry out all reasonable and feasible measures during the construction and operation of the project to prevent air pollution (including odour) in accordance with Sections 124, 125, 126 and 128 of the <i>Protection of the Environment Operations Act 1997</i>.
Hazards	<ul style="list-style-type: none"> • The project would not result in any change to existing fuel bowsers and storage tanks. • Therefore, there would be no change to hazards associated with the facility. 	<ul style="list-style-type: none"> • All chemicals are required to be stored in accordance with relevant Australian Standards.

5. RECOMMENDED CONDITIONS

The Department has prepared recommended conditions of approval for the project (see Appendix B), and summarised these conditions in Appendix A. These conditions are required to:

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

The Proponent has reviewed and accepts the recommended conditions.

6. CONCLUSION

The Department has assessed the merits of the project in accordance with the requirements in the EP&A Act. This assessment was undertaken with assistance an independent maritime engineer and found that:

- the proposal is generally consistent with the character of the bay;
- the project generally complies with Australian Standards and NSW Maritime guidelines for marina structures as well as the Department of Environmental and Climate Change (DECC) guidelines for the operation of slipways and maintenance facilities, subject to some minor changes which can be made during the detailed design of the marina;
- project is unlikely to affect navigation, safety and public access within Gunnamatta Bay;
- visual impacts of the project are acceptable; and
- environmental impacts of the project can be suitably mitigated and managed.

The Department also considers that the project would have a number of benefits, including:

- the upgrading of recreational facilities of the Sutherland Shire by providing a modern marina for the recreational boating community, and catering for the growing demand for larger berths within the region;
- the removal of swing moorings which would open up a sizeable area within the bay for recreational and commercial purposes ;
- improving public facilities at the marina associated with fuel dispensing and sewage and oily bilge pumpout facilities and the provision of casual berths for small vessels;
- the provision of a designated navigational channel to the Gunnamatta Bay boat ramp providing for the safe navigation of boats that utilise this public facility; and
- improvements to the environmental performance of the existing facility.

Consequently, the Department believes that the project is in the public interest and should be approved subject to conditions.

7. RECOMMENDATION

It is RECOMMENDED that the Minister:

- consider the findings and recommendations of this report;
- approve the project application, subject to conditions, under section 75J of the Environmental Planning and Assessment Act 1979; and
- sign the attached project approval (see Appendix B).

Signed 24/7/09

David Kitto
**A/Executive Director
Major Projects Assessment**

Signed 25/7/09

Richard Pearson
**Deputy Director-General
Development Assessment and Systems
Performance**

Signed 28/7/09

Sam Haddad
Director-General

APPENDIX A: SUMMARY OF CONDITIONS OF APPROVAL

Aspect	Condition	Requirement
Schedule 2: Administrative Conditions		
	5 - 9	Limits for the maximum number of vessels that can be berthed and the maximum berths that can be used for the display and sale of boats, as well lapsing provisions for the approval.
	10	Requirements for the facility to be designed and constructed in accordance with the BCA and Australian Standards for marinas.
	12	Requirements for the protection of public infrastructure.
Schedule 3: Specific Environmental Conditions		
<i>Marina</i>	1	Requirement to relinquish moorings before commissioning the new berths
<i>Berthing and Design</i>	2-3	Design requirements for the berths and slipways.
<i>Navigation</i>	5 - 7	Requirements for the navigational channel to the public boat ramp including the provision of navigational markers and the depth requirements for the channel.
<i>Visual</i>	8 - 9	Requirements to minimise lighting impacts from the site and to use non-reflective materials for the slipway roof structure. .
	10	Requirements for signage.
<i>Noise</i>	11 -12	Construction and operation hours as well as noise limits for the project.
	13	Requirement to notify surrounding land owners prior to the commencement of construction.
<i>Soils and Water</i>	14- 15	Requirements to install a floating boom and silt curtain prior to construction and to install appropriate erosion and sediment controls during construction.
	16	Requirement to prepare and implement an acid sulfate soils management plan prior to disturbing any acid sulfate soils.
	17 -20	Requirements for discharges and bunding
<i>Flora and Fauna</i>	21 – 22	Requirements to minimise impacts on seagrasses and where reasonable avoiding areas of the noxious species <i>Caulerpa taxifolia</i> .
<i>Air Quality</i>	23	Requirement to minimise air pollution during the construction and operation of the project
<i>Waste Management</i>	24	Requirement to minimise waste during the life of the project and to dispose of waste lawfully.
<i>Hazards</i>	25	Requirement to ensure that spillage control equipment is available at all times.
	26	Requirement to prepare and implement an emergency management plan to detail staff training and measures to prevent spills, accidents and other emergencies.
Schedule 4: Environmental Management, Monitoring, Auditing and Reporting		
<i>Environmental Management Strategy</i>	1	Requirements to prepare an environmental management strategy.
<i>Pre-Operation Compliance Audit</i>	2 - 3	Requirement to submit works as executed plans prior to the commencement of operations.
<i>Incident Reporting</i>	4 - 5	Incident reporting requirements.
<i>Annual Report</i>	6	Requirement to submit an annual report for the project.
<i>Independent Environmental Audit</i>	7 - 8	Requirement to commission an independent audit within 2 years of approval and every 3 years thereafter to assess the environmental performance of the project and compliance with the project approval.

APPENDIX B: CONDITIONS OF APPROVAL

APPENDIX C: CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) aims to ensure the RTA is made aware of and allowed to comment on projects for developments listed in Schedule 3 of the SEPP. It would appear that the Infrastructure SEPP does not apply, however, the project was referred to the RTA for comment in accordance with the Infrastructure SEPP regardless.

State Environmental Planning Policy No. 55 – Remediation of Land

State Environmental Planning Policy No. 55 – Remediation of Land applies to the site. SEPP 55 aims to ensure that potential contamination issues are considered in the determination of a development application. Clause 7 of SEPP 55 states that:

- 7(1) *A consent authority must not consent to the carrying out of any development on land unless:*
- (a) it has considered whether the land is contaminated, and*
 - (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and*
 - (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.*

Analysis of the sediments of Gunnamatta Bay indicates that the heavy metals concentrations in sediments in the vicinity of the project are below ANZECC guidelines. Additionally, recent investigations commissioned by Council of sediments near the sailing club indicate that petroleum aromatic hydrocarbons, and organochlorine and organophosphate pesticides are also below ANZECC guidelines.

The Department is satisfied that land is suitable for its proposed used.

State Environmental Planning Policy No. 64 – Advertising and Signage

SEPP 64 aims to ensure signage is appropriately located and designed and to regulate signage within transport corridors. The Department has recommended conditions to ensure detailed signage plans are prepared in consultation with Council to the satisfaction of the Director-General.

State Environmental Planning Policy No.71 – Coastal Protection

State Environmental Planning Policy No. 71 – Coastal Protection applies to the site as it is within the coastal zone. In broad terms SEPP 71 aims to ensure that the natural, cultural, recreational and economic assets of the NSW coast are protected and appropriately managed.

The relevant matters for consideration in clause 8 of the SEPP 71 include:

- the aims of the SEPP 71;
- the suitability of development given its type, location and design and its relationship with the surrounding area;
- the scenic qualities of the New South Wales coast, and means to protect and improve these qualities;
- measures to conserve animals and plants, and their habitats;
- measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals;
- likely impacts of development on the water quality of coastal waterbodies; and
- the conservation and preservation of items of heritage, archaeological or historic significance.

The Department is satisfied that the proposed development is broadly consistent with the aims and other matters for consideration in the SEPP 71. The Department considers that the site is suitable for the proposal and the project would be compatible with surrounding land uses. It would have a minimal impact on scenic qualities and known heritage items, and access to the foreshore areas would be

maintained. In addition, water quality protection measures would ensure that adequate protection is provided for animals, plants and their habitats, including Gunnamatta Bay.

Sutherland Shire Local Environmental Plan 2006

Sutherland Shire Local Environmental Plan 2006 provides development controls for development in the Sutherland LGA including Gunnamatta Bay. The proposed facility is located in Zone 16 – Environmental Protection (Waterways), while a section of the slipways is located in Zone 13 – Public Open Space. The objectives of the Zone 16 is to ensure that development (including private development) is carried out in a manner that protects the ecology, scenic value or navigability of the waterways while ensuring that public access to the waterway is not hindered. The objectives of Zone 13 are to provide and preserve public open space. The Department is satisfied that the proposed facility is not consistent with the objectives of these zones

APPENDIX D: RESPONSES TO SUBMISSIONS & PREFERRED PROJECT REPORT

APPENDIX E: SUBMISSION FROM AN INDEPENDENT MARITIME ENGINEER

APPENDIX F: SUBMISSIONS

APPENDIX G: ENVIRONMENTAL ASSESSMENT
