



HARBOUR PLANNING
WATERFRONT CONSULTANCY

STATEMENT OF ENVIRONMENTAL EFFECTS

Submitted to
NORTHERN BEACHES COUNCIL

Development Application For
RELOCATION OF THE EXISTING MOORING AID PILE

At
**963 BARRENJOEY ROAD,
PALM BEACH NSW 2108**

For the
PHILLIPS FAMILY

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1. INTRODUCTION – PROJECT SUMMARY

The Phillips family, homeowners of 963 Barrenjoey Road, Palm Beach NSW 2108, are submitting a Development Application to Northern Beaches Council for the **Relocation of the Existing Mooring Aid Pile** below of the Mean High Water Mark (MHWM) abutting the eastern side of Careel Bay. This application is submitted in conjunction with a Building Information Certificate (BIC) Application to authorise the **Existing Piles, Pontoon, Ramp, Jetty and part Timber Deck and Part Boat Shed**. Notably, both applications have now received Land Owners Consent (LOC) from Crown Lands on 28 May, 2025, enabling the application to be lodged to Northern Beaches Council.

The property was purchased by the current homeowner on 3rd September 2018, who subsequently initiated an Automatic Licence Transfer Application to have the Crown Licence transferred to their name. However, Schedule 3 of the Crown Licence (RN 600868) indicates that some of the existing structures are required to be authorised and included in the Licence. On 13th March 2024, Crown Lands issued an "Offer of Licence" to the homeowner, confirming them as the registered owners of the adjoining land covered by the licence. In response, the homeowner has engaged Harbour Planning Pty Ltd for practical assistance and advice to prepare a BIC Application to authorise the existing structures and obtain a valid Crown Licence.

When the application was submitted to DPIRD Fisheries for assessment, they did not provide concurrence for issuance of the BIC for the Mooring Aid Pile, as it was located within the Type 1 Key Fish Habitat Area. Upon submission to Crown Lands for Land Owner Consent, a directive was made on February 6th, 2025, stating that a Development Application would be required to remove the Mooring Aid Pile. Following this, Harbour Planning engaged in discussions with DPIRD Fisheries about the possibility of relocating the Mooring Aid Pile 3.8m offshore, outside of the Type 1 area, along the seaward face of the pontoon. This would provide continued temporary berthing of the owner's vessel while minimizing the impact on the Key Fish Habitat Area. DPIRD Fisheries has since confirmed that they have no objections to the proposed new location of the Mooring Pile.

Importantly, the Mooring Aid Pile is essential for securing the homeowner's vessel during periods of high winds and wave attenuation. This application proposes relocating the pile to maintain the waterfront's amenity while improving marine ecology. Figure 1 below shows an aerial map of the site. Scaled plans in A3 are attached as Annexure C.

FIGURE 1. Aerial locality map of the subject site (Source: Nearmap, 2024)



Based on Harbour Planning's onsite inspections and review of specialist documents (Marine Habitat Report – Annexure A and Identification Survey – Annexure B), the SEE has determined that retaining the existing water recreation structures warrants the site's occupation of Crown Land. Hence, the application meets the general requirements of all stakeholders with Landowners Consent received from Crown Lands on 28/05/2025. This application is now submitted to Northern Beaches Council with an award of Development Consent.

2. PROJECT BRIEF AND OBJECTIVES

2.1. SCOPE OF STRUCTURES SUBJECT TO BIC

Figure 2 below shows the site plan of the existing structures along the waterfront and the proposed location for the relocated Mooring Aid Pile. Specifically, this application involves relocating the existing Mooring Aid Pile 3.8m seawards, in line with the face of the existing pontoon, while being outside of the Type 1 Key Fish Habitat area. With the updated layout, the vessel will temporarily berth on the seaward face (long side) of the pontoon, enabling the bow of the vessel to be tied onto the relocated Mooring Aid Pile.

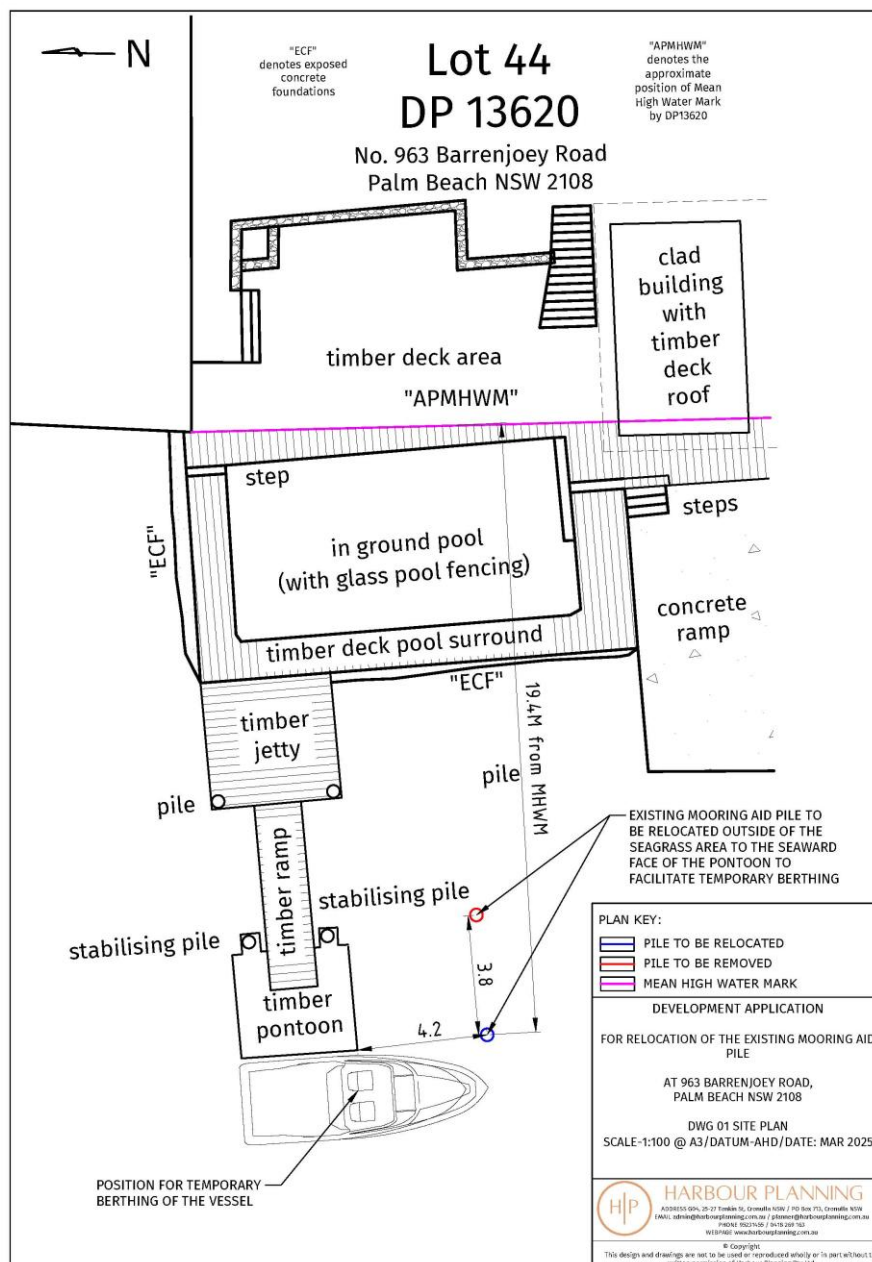
Development Application for the relocation work following:

Existing Mooring Aid Pile

– 0.1m²

❖ Total Existing Structures Length = 19.4 m from Mean High Water Mark

FIGURE 2. DWG 1 site plan of DA works



2.2. DOMESTIC CROWN LICENCE OF THE SITE

Figure 3 below provides a snapshot of Schedule 3 from the previous Crown Licence (Li 199876) drawn on 30/06/1994, while Figure 4 on the next page shows a snapshot of the current Crown Licence (RN 600868) with notations highlighting the footprint of the structures to be authorised. Despite the numerous arrows in Figure 4, the layout of the waterfront structures remains generally unchanged. The footprint and configuration of the concrete ramp and the inground pool are equivalent. The main differences include the removal of the slip rails on top of the concrete ramp and the upgrade from a timber jetty with sea stairs to a jetty, ramp, and pontoon facility for an all-tide platform. The jetty position has also shifted from the southern to the northern side of the current inground pool.

As these alterations are minor and constitute essential improvements to the waterfront, the currently submitted BIC application can resolve the majority of the issues regarding the waterfront footprint as part of the transfer process of the existing Crown Licence to the current homeowner. Additionally, the approval of the Mooring Pile in this application will ensure that all improvements made to the existing domestic waterfront structures are included in the computation of the Crown Licence's annual lease payments without impacting on the usability of the subject site.

FIGURE 3. Schedule 3 of domestic crown license number: Li 199876 (excerpts only)

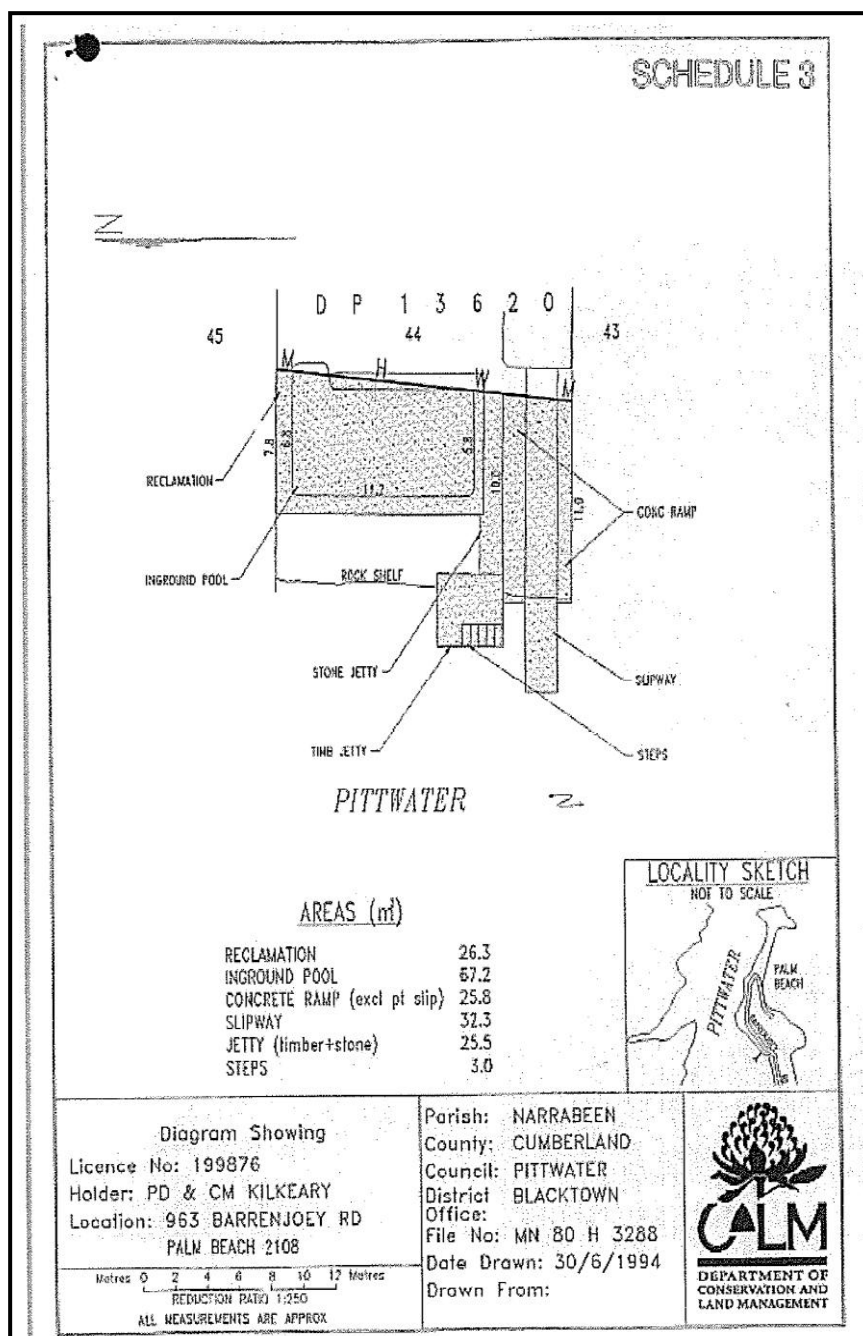
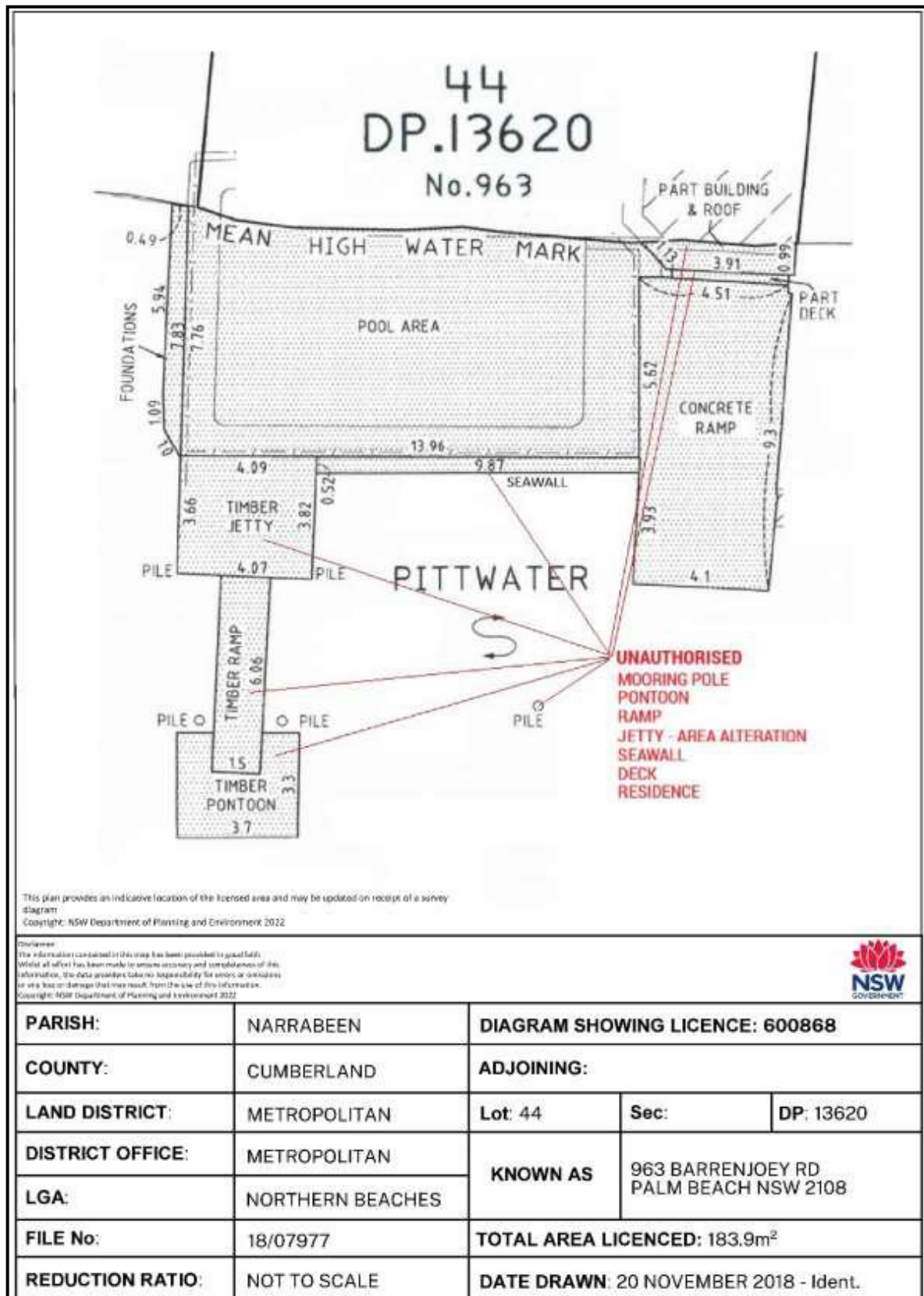


FIGURE 4. Schedules 3 of the current domestic crown license (RN 600868) (excerpts only)

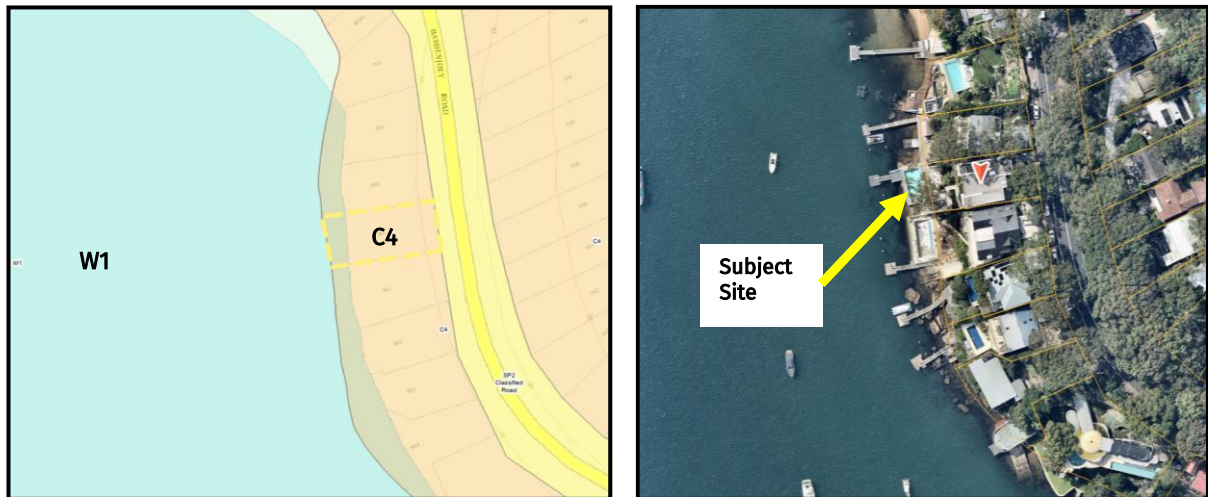


3. SITE ANALYSIS

The property is known as Lot 44 DP 13620, located at 963 Barrenjoey Road, Palm Beach NSW 2108. It is a waterfront property located along Eastern shoreline of Careel Bay along the waterway of Pittwater, approximately 1km South of Palm Beach.

Under the Pittwater Local Environmental Plan 2014, the property is currently classified as within the C4 Environmental Living Zone and the waterway is zoned as W1 Natural Waterways Zone. The proposed Mooring Aid Pile relocation is defined as permissible development subject to Council consent.

FIGURE 5. Pittwater LEP 2014 zoning map and aerial locality map from nearmap, 2024



The subject property, located at 963 Barrenjoey Road, Palm Beach, is a rectangular allotment of 745.43m² accessed from Barrenjoey Road to the east. It features an adequate land-water interface of approximately 18.5 metres in width along the MHWL. The main residence is centrally situated on the lot, typical of properties in this area, with a stepped profile from the main street to the waterfront.

Seaward of the main residence, a staircase provides the homeowner with access to the waterfront area via the roof of the existing boatshed. The property has an active domestic marine frontage with a variety of existing waterfront facilities, including a boat shed, concrete ramp, jetty, ramp, and pontoon. Figure 6 below shows the current view of marine facilities along the subject site.

FIGURE 6. Seaward (L) and landward (R) views of the subject waterfront area



FIGURE 7. 1971 and 1991 historical maps of the site (Source: NSW Historical Aerial Imagery)



Based on the snapshots from NSW Historical Aerial Imagery (Figure 7), the subject site has a long history and continuous usage of marine structures. Notably, the inground pool abutting the site has been in situ since 1971, as evidenced by the earliest aerial image accessible on the portal. It should also be noted that the stub jetty on the southern side of the pool has also existed since that time. Therefore, the previous homeowners of the property have enjoyed a similar type of waterfront facility for more than fifty years. By 1991, the jetty platform towards the southern side of the pool had been enlarged to a size similar to that depicted in the 1994 Crown Licence (refer to Figure 3).

FIGURE 8. 2009, 2010, 2018 and 2024 Historical maps of the site (Source: Nearmap)



Additionally, a search on Nearmap was conducted to obtain more recent and high-quality aerial imagery of the subject waterfront area. According to the oldest Nearmap imagery from 2009, the waterfront footprint was generally the same as depicted in the 1994 Crown Licence (refer to Figure 3). It is worth noting that in 2009, there were two vessels on the slip rails and a davit adjacent to the former timber jetty. Since 2010, both small vessels have been removed. Hence, there are currently no vessels permanently stored below MHW, significantly enhancing waterfront compliance.

The current homeowner acquired the property in 2018, and the footprint of the structures at that time was already similar to the present-day footprint. The only noticeable difference is the removal of the dilapidated and unusable jetty end adjacent to the southern side of the inground pool. Therefore, it is clear that the current homeowner has only conducted minor refurbishments to upgrade the waterfront area without significantly altering the alignment or footprint. All the above works are currently in the process of authorisation in accordance with the accompanying BIC application.

Moreover, an examination of the position of the Mooring Aid Pile on the southern side of the pontoon between 2009 and 2010 reveals that the pile is a remnant from the previous timber jetty end pile. This emphasises that the pile is not a new structure but part of the authorised structures under their previous licence. Furthermore, this pile serves an important purpose by facilitating temporary berthing onto the pontoon during periods of high wave and wind attenuation. Hence, this Development Application is submitted to Northern Beaches Council in order to relocate the Mooring Aid Pile outside of the Key Fish Habitat area instead of requiring its removal.

FIGURE 9. View of the neighbouring structures looking north (L) and south (R)



It is also worth highlighting that the subject property is located within an active marine locality with a wide range of marine structures, including seawalls, boatsheds, jetties, ramps, pontoons, sliprails, concrete ramps, and rigging decks. As shown in Figure 9 above, there is a continuum of marine structures along both sides of the subject property. The property to the north (965 Barrenjoey Road) has a jetty, ramp and pontoon, timber deck, boatshed, and a mooring pen structure. Similarly, the property to the south (961 Barrenjoey Road) has a waterfront structure nearly identical to the subject site, including a swimming pool, seawall, boatshed, concrete ramp, jetty, ramp, pontoon, and freestanding pile. Hence, the existing structure aligns with the size, scale, and character of the subject locality and seamlessly blends into the area's visual amenity.

Figure 10 on the previous page depicts the proposed structures superimposed onto the existing foreshore area. Notably, the existing Mooring Aid Pile to be removed is highlighted in red while the proposed relocated position, approximately 3.8m seaward of the existing Pile, along the seaward face of the Pontoon is superimposed in yellow. It should be highlighted that the proposed position of the Mooring Aid Piles is still commensurate with the continuum of freestanding piles along the locality. Therefore, the proposal aligns with the size, scale and character of the subject locality.

FIGURE 10. View of the approximate position for the Mooring Pile Relocation



In terms of noise, the site is located in a well-established, built-up area with numerous marine structures and an active marine environment. Since the proposed works involve only the relocation of an existing Mooring Aid Pile, rather than the construction of a new type of waterfront facility, there will be no increase in water traffic noise. This noise is readily absorbed into those of existing maritime activities, as generated by the neighbouring properties and the general use of the waterway.

Based on the detailed analysis above, this SEE has determined that the potential impacts of the approval of this DA on the amenity or aesthetic values of the Pittwater are expected to be minimal. The applicant now requests Northern Beaches Council for an award of Development consent.

4. ENVIRONMENTAL IMPACT ASSESSMENT

The following section of the statement is divided into separate impact assessments, which are specifically related to relevant Stakeholders, Transport for NSW – Maritime (Maritime) and Department of Primary Industry and Regional Development—Fisheries (Fisheries).

4.1. NAVIGATION

Transport for NSW absorbed Roads & Maritime Services in 2019 under s.46 of Transport Administration Act 1988. Maritime, specifically, is an operating subgroup under the Transport for NSW tasked to assess development proposals and their navigational impacts to existing and future water recreation structures of adjacent properties, as well as other navigational aspects in relation to the main body of water and the general public's enjoyment.

In compliance with the requirements of Transport for NSW and to establish the suitability of the development works to the maritime use of this section of Pittwater in respect to navigation, the Development Application has been lodged to Transport for NSW – Maritime and has subsequently been issued Consent (Annexure D refers).

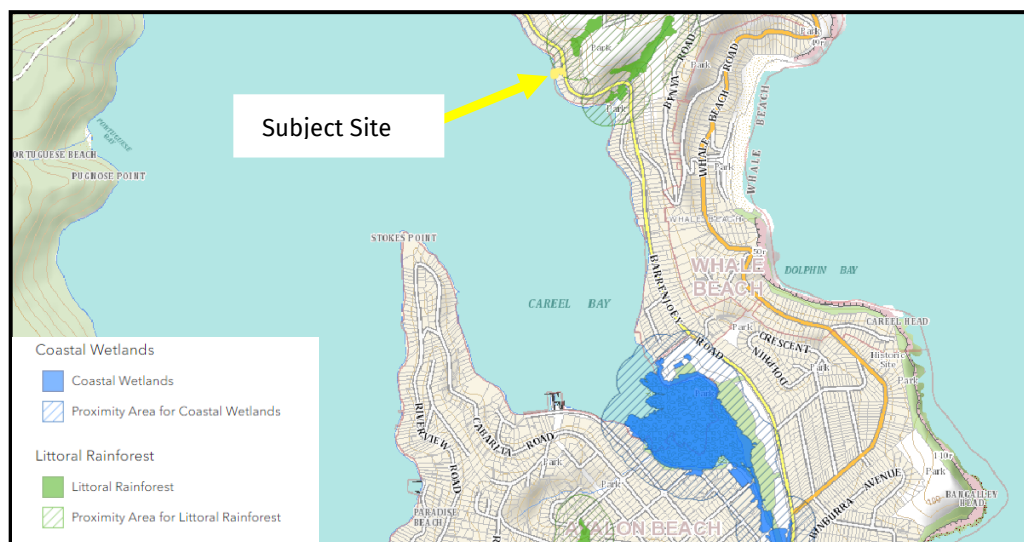
The Consent Letter for the existing work seaward of 963 Barrenjoey Road, Palm Beach NSW 2108 was issued on the 31 July, 2024 (Annexure D) and states; **“Transport for NSW Maritime advise that the proposal, as per the attached stamped plan, has been assessed as having minimal impact on the safety of navigation under the Marine Safety Act 1998.”** Hence, the applicant has satisfied the navigation assessment aspect of Northern Beaches Council for the issue of Consent.

4.2. SEPP (RESILIENCE AND HAZARDS) 2021

The site, along with all properties that have boundaries adjoining Pittwater, have been identified in accordance with State Environmental Planning Policy (Resilience and Hazards) 2021 to be located within the Coastal Management Area. Therefore, the proposed works are assessed in relation to Division 1 Coastal wetlands and littoral rainforests area, Division 2 Coastal vulnerability area, Division 3 Coastal Environment area, Division 4 Coastal use area and Division 5 General of the SEPP.

Generally, the planning approval path for domestic marine structures is consistent with the objectives of the RH SEPP 2021, as it is a precautionary graduating process. According to the Coastal Wetlands and Littoral Rainforests Area Map, this property on 963 Barrenjoey Road, Palm Beach, is not located in those zones (refer to Figure 11). The landward section of the subject property is partly located in the Proximity Area for Littoral Rainforests, but this is irrelevant as this application is only for water-based structures. The closest Littoral Rainforest Zone is located approximately 130m north-east of the site, and the closest Coastal Wetlands are located more than 1300m to the south-east. During the site visit, it was established that there are no mangroves or salt marshes along the foreshore area. Therefore Division 1 is not applicable to this property.

FIGURE 11. Coastal wetlands zone map of 963 Barrenjoey Road, Palm Beach NSW 2108



Further, the Division 2 is not applicable also as there are no current mapping provided by the NSW Government. Table 1 below is an evaluation of the subject works against Division 3, 4 and 5.

Table 1. Performance Assessment Table to the relevant provisions of the Division 3, 4 and 5 of the RH SEPP

Division 3 – 2.10 Development on land within the Coastal Environment Area		
Required	Proposal	Compliance
1 (a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment,	The mooring aid pile will be freestanding and open form, it is not solid fill structure. Also, as the application merely involves the relocation of the existing pile, with no new structures, it is confirmed that the proposal will not impact on the biophysical, hydrological surface and ground water.	Yes
(b) coastal environmental values and natural coastal processes,	As the proposed Mooring Pile Relocation will not alter the footprint of the waterfront structures, it would have nil to negligible impact on the coastal environmental values and natural coastal processes, if any.	Yes
(c) the water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1,	The only possible impacts for the Pile Relocation would be short term piling works during the construction phase which may create temporary increases in turbidity. It should also be noted that the turbidity generally dissipates through 1-2 tide cycles with no long-term effects. Also, the subject site is not located in a Sensitive Coastal Lake.	Yes
(d) marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms,	As previously mentioned, the impacts on the Marine Vegetation are likely to be improved as a result of the proposal because the Mooring Aid Pile will be relocated away from the Type 1 Key Fish Habitat area and be located on bare substrate devoid of vegetation.	Yes
(e) existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,	Notably, this is an absolute waterfront with the boundary of the property ending at MHW. Hence, there is no existing public open space along the subject foreshore. Additionally, the proposed location of the Mooring Aid Pile will be along the seaward face (long side) of the pontoon which will ensure that the Pile does not exceed the seaward length of the neighbouring piles and jetties. This confirms that the proposal will have no impact on public access.	Yes
(f) Aboriginal cultural heritage, practices and places,	No significant items of Aboriginal Heritage found in this property.	Yes
(g) the use of the surf zone.	There is no use of the Surf Zone.	Yes
Division 4 – 2.11 Development on land within the Coastal Use Area		
Required	Proposal	Compliance
(1) (a) (i) existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,	Notably, this is an absolute waterfront with the boundary of the property ending at MHW. Hence, there is no existing public open space along the subject foreshore. Additionally, the proposed location of the Mooring Aid Pile will be along the seaward face (long side) of the pontoon which will ensure that the Pile does not exceed the seaward length of the neighbouring piles and jetties. This confirms that the proposal will have no impact on public access.	Yes

(ii) overshadowing, wind funnelling and the loss of views from public places to foreshores,	The proposed Mooring Aid Pile relocation is an open profile and small-scale alteration, and are commensurate in terms of scale with the neighbouring structures. Therefore, there is no impact to wind funnelling and view loss from public places to foreshore.	Yes
(iii) the visual amenity and scenic qualities of the coast, including coastal headlands,	As mentioned above, the subject site is an active marine locality with all properties having existing waterfront facilities. Also, the proposal is only for the Relocation of the Existing Mooring Aid Pile, with no change to the overall area of waterfront occupation. Hence, the proposed pile relocation is commensurate with the majority of the structures along the locality which highlights that there is no risk to the visual amenity and scenic qualities of the coast resulting from the subject works.	Yes
(iv) Aboriginal cultural heritage, practices and places,	No significant items of Aboriginal Heritage found in this property.	Yes
(v) cultural and built environment heritage, and	The subject property is not listed in the heritage register. Hence, the proposal is unlikely to impact the cultural and built environmental heritage.	Yes
(b) (i) the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a), or	Based on the detailed response above, it can be ascertained that the development mitigates adverse impact on the site. The works have minimal or no impact on water quality, marine ecology, public access or use of Pittwater, overshadowing, funnelling, visual amenity or cultural values. Hence, the application satisfies the assessment criteria of the RH SEPP for Development Consent.	Yes
Division 5 – 2.12 General		
Development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.	Careful consideration has been given to the assessment of the proposed works against coastal hazards risks. Due to the minor nature of the existing mooring aid pile relocation, risks are negligible if not nil.	Yes
Division 5 – 2.13 General		
Development consent must not be granted to development on land within the coastal zone unless the consent authority has taken into consideration the relevant provisions of any certified coastal management program that applies to the land	Per the NSW Government Environment and Heritage website, there are no certified coastal management programs applicable to the site. https://www.environment.nsw.gov.au/topics/water/coasts/coastal-management/programs/certified-coastal-management-programs	Yes
Division 5 – 2.14 General		
Subject to section 2.5, for the avoidance of doubt, nothing in this Part— (a) permits the carrying out of development that is prohibited development under another environmental planning instrument, or	The subject works are permissible within the Pittwater LEP 2014, as such this clause is not relevant.	N/A

(b) permits the carrying out of development without development consent where another environmental planning instrument provides that the development may be carried out only with development consent.		
Division 5 – 2.15 General		
If a single parcel of land is identified by this Chapter as being within more than one coastal management area and the development controls of those coastal management areas are inconsistent, the development controls of the highest of the following coastal management areas (set out highest to lowest) prevail to the extent of the inconsistency— (a) the coastal wetlands and littoral rainforests area, (b) the coastal vulnerability area, (c) the coastal environment area, (d) the coastal use area.	The hierarchy has been noted accordingly in the assessment, with Division 3 and 4 contents tabled above. Division 1 and 2 are not applicable to the subject site.	Yes

Based on the detailed analysis from above, the application satisfies the assessment criteria of the RH SEPP for the issue of a Development Consent by Council.

4.3. MARINE ECOLOGY

DPIRD Fisheries, being the State Stakeholder responsible for the conservation of fish stocks and key fish habitats, ensures that all developments comply with the stringent requirements of the Fisheries Management Act 1994 as well as the related Policy and Guidelines for Fish Habitat Conservation and Management (2013). Through DPIRD Fisheries' careful assessments and elimination of unfavourable applications during the preliminary stages of the development consent process, the sustainable management of commercial, recreational and Aboriginal cultural fishing, aquaculture, marine parks and aquatic reserves within NSW is ensured.

In compliance with the requirements of DPIRD Fisheries and to establish the suitability of the development works to the marine habitat of the seabed abutting the 963 Barrenjoey Road, Palm Beach NSW 2108, in respect to ecological impact, the Building Information Certificate Application has been lodged to the Department of Primary Industries and Regional Development – Fisheries and issued a Consent (Annexure E refers). As a result of Fisheries' assessment of the submitted plans and the Marine Habitat Survey (Annexed A), an approval letter was issued on the 18 September 2024 for the authorisation of all structures except the existing Mooring Aid Pile. Subsequently, Harbour Planning proposed the plan to relocate the existing Mooring Aid Pile outside of the Type 1 Key Fish Habitat area, and a reply has been received from Fisheries stating that they have no comment regarding this proposal. Therefore, this Development Application has satisfied the requirements of Crown Lands and Northern Beaches Council for the issuance of Consent.

An assessment of the surrounding aquatic environment has been conducted by Waterfront Surveys Australia at 12:45am on 15 April 2024 to establish the existing integrity of the intertidal and subtidal area seaward of the subject site and justify the suitability of the waterfront structures. Provided below is a description of the aquatic environment fronting the property as extracted from the Marine Habitat Survey (Annexure A refers).

Intertidal Ecology

The intertidal zone within the on-site survey area of The Property consisted of natural and artificial habitats. The seawall that stretched across the inground pool to the authorised concrete ramp was composed of a natural bedrock base topped by concrete. The authorised concrete ramp and the unauthorised timber jetty, pontoon and mooring piles provided artificial intertidal habitat.

*The natural bedrock on the lower half of the seawall was colonised by a high density cover of Sydney rock oysters (*Saccostrea glomerata*), and the concrete on the top half of the seawall was bare. The top half of the authorised concrete ramp was bare (Photo 3) and the bottom half colonised by oysters.*

*The unauthorised timber deck was devoid of any intertidal biota (Photo 3). The intertidal sections of the unauthorised timber jetty and pontoon piles were bare. The intertidal section of the single unauthorised timber mooring pile was colonised by barnacles (*Tesseropora rosea*).*

Subtidal Ecology

The subtidal zone within the on-site survey area of The Property started at the base of the seawall and consisted of a moderately sloping rocky reef (Photos 4 - 5) that continued offshore 4.5 m, finishing 1 m offshore of the jetty piles. From there the seabed transitioned to gradually sloping silty sand that continued offshore beyond the extent of the survey area (Photos 6 - 9). There was a large boulder located 2.5 m south-west of the pontoon.

*The rocky reef (Photos 4 - 5) was colonised by a high density cover of brown algae (bubbleweed *Sargassum* sp., kelp *Ecklonia radiata*, scrollweed *Padina* sp. and turfing filamentous) and red coralline alga (*Corallina officinalis*). The jetty piles were located within this rocky reef (Photo 5). The silty sand seabed across the site was colonised by a low density cover of the green pest alga *Caulerpa taxifolia* (Photo 6). The *Caulerpa* was present under the unauthorised ramp and pontoon (Photo 6) and around the pile locations. There was a patch of low density *Halophila* seagrass present on the southern side of the pontoon (Photos 7 - 9). Within this *Halophila* patch there were several sparsely scattered individual shoots of *Posidonia* (Photo 9; see section c. below for further seagrass details).*

*The subtidal sections of the unauthorised timber jetty, pontoon and mooring piles were colonised by turfing cover of brown and red filamentous algae, along low numbers of barnacles (*Tesseropora rosea*). The unauthorised pontoon (Photo 10) provided a subtidal habitat that was colonised by a diverse matrix including brown algae (scrollweed and filamentous), green alga (sea fingers *Codium fragile*), red algae (branching *Laurencia* sp. and filamentous *Gelidium* sp.), solitary ascidians (*Styela plicata*), hard bryozoa (*Watersipora* sp.) and barnacles. Fish observed during the survey were yellowfin bream (*Acanthopagrus australis*) and luderick (*Girella tricuspidata*).*

The Marine Habitat Survey concluded with the following:

In summary, the potential impacts on the aquatic ecology at The Property from the unauthorised existing timber deck at the top of the concrete ramp, timber jetty, timber ramp, pile stabilised pontoon and single mooring pile have been assessed as potentially minor. The rocky reef under the unauthorised jetty was not adversely impacted by the jetty, as it had the same diversity and cover of algae as the adjacent rocky reef habitat.

*The unauthorised ramp and pontoon were located over a silty sand seabed. This soft seabed was colonised by a low density cover of the green pest alga *Caulerpa taxifolia* across much of the site. There were no seagrass habitats observed in the footprint of any of the unauthorised structures. The closest seagrass habitat was a patch of low density *Halophila* located 1.5 m and 0.5 m south of the unauthorised ramp and pontoon respectively. There were low numbers of sparsely scattered individual shoots of *Posidonia* mixed within the *Halophila* patch, however, there was a buffer of 1 m from the southern edge of the pontoon to the closest the *Posidonia* shoots.*

*Due to the fact that there was no *Posidonia* patch on the southern side of The Property (like there was a patch on the northern neighbouring property) colonising a soft seabed that is several metres away from any structures or mooring pile; it is difficult to ascertain retrospectively whether there would have been any seagrass (*Posidonia* or *Halophila*) on the seabed under the unauthorised ramp and pontoon before they were installed. As such, the impacts of the installation of the unauthorised ramp and pontoon can only be assessed as potentially minor, though the impacts could also have been negligible if there was no seagrass ever on the seabed in their footprint. The site inspection seagrass findings correspond to the NSW DPI mapping of *Posidonia* being located only on the northern side of the ramp and pontoon.*

The unauthorised timber jetty piles, pontoon piles, mooring pile and pontoon were observed to be beneficial to the aquatic ecology at the site. These structures provided artificial intertidal and subtidal habitats that were colonised by flora and fauna, that otherwise would not be present at the site.

Specifically, it should be highlighted that the proposed relocation of the Mooring Aid Pile seaward will be beneficial to the Marine Ecology because it will enable the Pile removed from the Type 1 Key Fish Habitat to the bare seabed area. Hence, providing consent will therefore not result in adverse impacts on the existing integrity of the marine habitat.

Based on the results of the marine habitat survey, the SEE has determined that the as build work will preserve the integrity of the site's existing marine habitat, and thus, satisfies the requirements of Crown Lands for an award of the Landowner's Consent and for Northern Beached Council to provide a Development Consent.

5. PLANNING CRITERIA TABLES

This application has been prepared to evaluate Northern Beaches Council's planning charter on the appropriateness of practical land use development of this foreshore site. Relevant planning instruments applicable to this proposal are:

- Pittwater Local Environmental Plan 2014 ("Pittwater LEP 2014");
- Pittwater 21 Development Control Plan ("Pittwater 21 DCP");

An assessment of this application in context to the objectives and controls as detailed in this document are provided below in both the compliance tables and associated comments.

5.1. PERFORMANCE ASSESSMENT – PITTWATER LEP 2014

The following tables and discussions demonstrate to the Northern Beaches Council that the proposed work satisfies the specific assessment criteria set by the Pittwater Local Environmental Plan 2014.

Table 1. Performance Assessment Table to the relevant provisions of the Pittwater LEP 2014

Standard/ Control	Required	Proposal	Compliance
C4 & W1 Zoning (Pt. 2 – Land use Table)	Land uses that are permitted with consent	Mooring Pens are permissible in the W1 Natural Waterways Zone.	Complies.
Development below the MHWL (Cl. 5.7)	Development Consent is required for works below MHWL.	Development Application will be submitted to Council with Landowners Consent issued by Crown Lands.	Complies.
Acid Sulfate Soils (Cl. 7.1)	Class 1 Land from the Acid Sulfate Soils Map	The proposed Mooring Pile relocation works will be driven to the seabed and will not require any excavation works. The works will disturb less than 1t of soil. On this basis, there is no potential to lower the water table and no requirement to submit an ASS Management Plan.	Complies.
Biodiversity (Cl 7.6)	(Cl.3) (a) Consent authority must consider whether the development is likely to have adverse impacts ecological value on flora, ang fauna, vegetation and habitat of the land	This SEE and the Marine Habitat Survey all confirms that the Proposed relocation of the Mooring Aid Pile outside of the Type 1 Key Fish Habitat area will have been beneficial for the biodiversity.	Complies
Geotechnical Hazard (Cl 7.7)	The existing site is identified as "Geotechnical Hazard H1"	The development will use a floating oil boom catching equipment to manage wastewater to prevent it from leaked into the waterway. It also	Complies.

	(Cl.4) (a) consent authority is satisfied that the development will appropriately manage waste water, stormwater and drainage (b) The development is designed, sited and will be managed to avoid any geotechnical risk or significant adverse impact on the development and the land surrounding development	makes sure that any excess materials don't get washed into the waterways or storm water system.	
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5.2. PERFORMANCE ASSESSMENT – PITTWATER 21 DCP

The following table and discussion demonstrate to the Northern Beaches Council that the proposed work satisfy the specific assessment criteria set by the Pittwater 21 Development Control Plan.

Table 2. Performance Assessment Table for Development Seaward of Mean High Water Mark according to Pittwater 21 Development Control Plan

Requirement	Proposal	Complies
Chapter D15 Waterways Locality, Clause 15.12 – Development seaward of mean high water mark		
Outcomes		Yes
1. To ensure minimal adverse impact on the water quality hydrodynamics and estuarine habitat of Pittwater. (En)	As mentioned above, the proposed relocation of the existing Mooring Aid Pile is expected to have minimal, temporary and unlikely to cause significant damage to the water quality, hydrodynamics and estuarine habitat of Pittwater.	Yes
2. To ensure new buildings are not susceptible to flooding. (S)	The proposal is a water-based development and will not be susceptible to flooding.	Yes
3. To ensure public access is maintained and provided for along the foreshore (En)	Notably, this is an absolute waterfront with the boundary of the property ending at MHW. Hence, there is no existing public open space along the subject foreshore. It should also be noted that the pile will be located within along the seaward face (long side) of the pontoon, ensuring that the structure does not exceed the existing continuum of waterfront structures along Pittwater, and thus protecting the integrity of public navigation from the waterway.	Yes
Controls		
4. All new buildings are to be located landward of mean high water mark.	Proposed work is not a new building.	Yes
5. Only structures associated either with the accommodation, servicing or provision of access to boats shall be permitted seaward of mean high water mark.	Proposed Mooring Aid Pile relocation is associated with the provision of access to boats below MHW.	Yes
6. In instances where it is proposed to alter, extend or rebuild existing buildings seaward of mean high water mark, any further encroachment of such buildings onto the waterway is to be minimised. Where development seaward of mean high water mark	The new Mooring Aid Pile is generally the same as the existing footprint and only relocated slightly seaward by 3.8m. This proposal also reduces the harm to marine vegetation because the pile will be no longer be located within the Type 1 Key Fish Habitat area. Consultation has also been made with DPIRD Fisheries, who has no objections with the relocation of the pile.	Yes

	is proposed to occur, especially during the refurbishment of existing structures, proponents need to ensure that the structure will not harm marine vegetation, and must consult with the Department of Primary Industries.		
7.	Developments are required to ensure that public access is maintained and provided for along the foreshore.	Notably, this is an absolute waterfront with the boundary of the property ending at MHW. Hence, there is no existing public open space along the subject foreshore.	Yes

Table 3. Performance Assessment Table Lateral Limits to Development seaward of Mean High Water Mark according to Pittwater 21 Development Control Plan

Requirement	Proposal	Complies
Chapter D15 Waterways Locality, Clause 15.13 – Lateral limits to development seaward of mean high-water mark		
Outcomes		
1. To ensure that fair and equitable enjoyment of the waterway is achieved between neighbouring waterfront landowners through restricting unreasonable encroachment of waterfront development in front of adjoining properties. (S)	The property's waterfront structures enjoy approval from Maritime which confirms that there will be no negative impact on navigation in this stretch of the Careel Bay on the Pittwater as a result of this DA proposal. It does not extend outside its prolongation of common lot boundaries, nor impede access or use of adjacent existing or future waterfront facilities.	Yes
Controls		
2. Waterfront development shall be constructed perpendicular to the shoreline and within the defined lateral limit lines to development, regardless of the orientation of waterfront properties, where practicable. This is to maximise equitable access to the waterway. (Diagrams 1 and 2).	The proposed Mooring Aid Pile relocation be constructed perpendicular to the shoreline and within the subject site's prolongation line (lateral limits).	Yes
3. Waterfront development shall be set back a minimum of 2.0 metres along the full length of the lateral limit lines to development to minimise conflict and the possibility of inaccurate location of structures during construction (Diagram 3). This may be varied where shared facilities are proposed where the adjoining property will benefit from the shared facility.	The location of the relocated Mooring Aid Pile will have a setback of 9.4m to the North and 9.0m to the South respectively.	Yes
4. This setback shall also apply to any vessel that is to be berthed at a wharf or boating facility, marina, water recreation structure or the like. Vessels which cannot meet this criterion are considered to be inappropriate for the site and should be accommodated elsewhere.	The expected temporary vessel berthing location and position are unchanged. Hence, the setback is unimpacted by the proposed work.	Yes

Table 3. Performance Assessment Table for Waterfront Development according to Pittwater 21 Development Control Plan

Requirement	Proposal	Complies
Chapter D15 Waterways Locality, Clause 15.15 – Waterfront Development, e) Piles		
Outcomes		
1. Waterfront development does not have an adverse impact on the water quality and estuarine habitat of Pittwater. (En)	Per the marine habitat survey, the impact regards relocation of the Existing Mooring Aid Pile is expected to be minimal, temporary and unlikely to cause significant damage to the water quality and estuarine habitat of Pittwater. In fact, the relocation of the pile outside of the Type 1 Key Fish Habitat is likely to be beneficial to the estuarine habitat of Pittwater.	Yes
2. Public access along the foreshore is not restricted. (S)	Notably, this is an absolute waterfront with the boundary of the property ending at MHWM. Hence, there is no existing public open space along the subject foreshore.	Yes
3. Waterfront development does not encroach on navigation channels or adversely affect the use of ferries and service vessels or use of the waterway by adjoining landowners. (S, Ec)	Maritime consent letter (Annexure D refers) dated 31/7/2024 states that the proposal is “assessed as having minimal impact on the safety of navigation under the Marine Safety Act 1998,” which confirms that navigation channels or use of ferries, service vessels and use by adjacent neighbours will not be affected.	Yes
4. Structures blend with the natural environment. (S)	Notably, Mooring Aid Piles are extremely common along the foreshore stretch of Careel Bay, and the relocated pile will be constructed generally in the same size, scale and material as the existing. This ensures that the proposal blends with the natural environment of the subject locality.	Yes
5. Structures are not detrimental to the visual quality, water quality or estuarine habitat of the Pittwater Waterway. (En, S)	As mentioned above, the mooring pile relocation is expected to be minimal, temporary and unlikely to cause significant damage to the water quality and estuarine habitat of Pittwater. As the property is located in a well-established and active Marine Locality, and that the proposal is only for the relocation work. Hence, the existing visual amenity on site to be unchanged.	Yes
6. To promote a mix of commercial waterfront development for the accommodation of boats, their repair and maintenance, and for organised waterfront development. (Ec)	The proposed development will be for residential development and accommodate for the homeowner’s recreational use.	Yes
Controls – e) Piles		
Freestanding or end piles are generally not favoured	Handrails are not proposed on the subject structures	Yes
Variations		
I. Structures shall not have a height greater than indicated in the following table: Berthing Piles 2.16m above MHWM, 2.67 AHD and 1.5m above HAT	The proposed piles will be located at 2.50m AHD, which confirms that the structures will not have a height greater than the figures on the table.	Yes
II. Structures shall be of timber or fibre reinforced concrete. Timber piles shall have a minimum diameter of 250mm and be stripped bare of bark above mean high water mark and be bound at the top by a metal ring to prevent splitting and be capped to prevent long term deterioration.	The proposed Pile Relocation will be constructed with the same material as the existing pile, being Turpentine Timber with a toe diameter of approximately 400mm. The pile will be stripped bare of bark above mean high water mark and be bound at the top by a metal ring to prevent splitting and be capped to prevent long term deterioration.	Yes
III. Structures shall be treated in dark,	The relocated pile will be Turpentine Timber,	Yes

	natural colours above mean high water mark. End piles or free standing piles shall be painted white along the top 1 metre of the pile to facilitate visual prominence when viewed from the water at night and minimise any hazard to navigation. The use of alternative measures, such as reflective materials, to facilitate visual prominence may also be supported.	with the top 1m painted white for navigational reasons.	
IV.	Structures should be positioned at least 2 metres away from any Posidonia seagrass.	The relocated Mooring Aid Pile will be located approximately 2m away from Posidonia Seagrass.	Yes

6. CONCLUSION

This Statement of Environmental Effects is submitted in support of a Development Application by the Phillips family on the property of 963 Barrenjoey Road, Palm Beach NSW 2108. The application seeks approval for the **Relocation of the Existing Mooring Aid Pile** below Mean High Water Mark (MHW) seaward of their family home.

This application was initiated during the process of the Licence Transfer by Crown Land, when it was noted that the footprint of the existing structures had been altered by the previous homeowner without the required consents. According to information provided by the homeowner and historical searches conducted by Harbour Planning, the waterfront alterations were primarily made by the previous homeowner between 2009 and 2010. Consequently, the current homeowners were unaware of the unauthorised status of their waterfront structures.

Harbour Planning Pty Ltd has been engaged to provide practical assistance and facilitate the authorisation process for the waterfront structures to enter into a valid Crown Licence. A BIC application has been requested by Crown Lands to regularise the area of occupation of the existing facility. However, upon assessment by DPIRD Fisheries, the existing Mooring Aid Pile, located within the Type 1 key fish habitat area, was not included for the approval of the BIC. When the application was submitted to Crown Lands for Landowner Consent, a directive was issued on 6th February 2025, requiring a Development Application for the removal of the existing Mooring Pole. Following this, Harbour Planning engaged in discussions with DPIRD Fisheries regarding the possibility of relocating the Mooring Pile offshore by 3.8 meters, outside the Type 1 area, along the seaward face of the pontoon. This relocation would continue to support the temporary berthing of the owner's vessel while minimising impact on the seagrass habitat. DPIRD Fisheries has since confirmed that they have no objections to the updated location of the Mooring Pile. Land Owners Consent has also subsequently been received from Crown Lands dated 28 May, 2025, enabling this application to be submitted to Northern Beaches Council for Development Consent.

As the freestanding Mooring Aid Pile is essential for securing the homeowners' vessel during periods of high winds and wave action, this application proposes relocating the pile to preserve the amenity of the waterfront while enhancing marine ecology. Additionally, approval of this Development Application will allow government departments to legally incorporate the expanded occupation footprint of the structure into the Crown Licence's annual lease payment. This will satisfy Crown Land's requirements for the ongoing domestic recreational use of the waterfront by the family.

Based on the analysis above, this application meets the criteria of all stakeholders and is now being submitted Northern Beaches Council for their issuance of Development Consent.

7. COMPANY DETAILS

Harbour Planning Pty Ltd:

Involved in the Marine Consulting and Contracting industry for over 45 years. Our company works predominantly along the East coast including Lake Macquarie, Brisbane Water, Hawksbury River, Port Jackson, Botany Bay, Georges River, Port Hacking and Shoalhaven River areas. We also have extensive experience within Sydney Harbour. Our knowledge of the waterways has been obtained by a combination of both hands-on experiences as well as through our in-house consultancy services. We submit approximately 120 to 150 applications per year, which involve liaisons with Crown Lands, DPIRD - Fisheries, Transport for NSW – Maritime and Local Council Authorities. As an aside, our professionals are multilingual and can converse fluently in Mandarin and Cantonese.

Consultant Details:

Shirley Lee:

Diploma of Building Design and Graduate Certificate in Planning UTS – continuing – Town Planner and Project Coordinator at Harbour Planning Pty. Ltd.

She has risen through the ranks of consultancy, liaising with professionals and government stakeholders to assist the team in achieving favourable outcomes. Her knowledge and experience of the planning industry is embedded with marine construction and maritime culture of the river systems within and surrounding Sydney and the East Coast of NSW.

Adrian Leung:

Bachelor of Design in Architecture, USYD and Master of City Planning, UNSW – Town Planner at Harbour Planning Pty Ltd.

He has recently joined the team and is providing academic and technical support whilst embracing everything nautical.

Han Hu:

Bachelor of 3D & Product Design, Griffith University and Master of Urban Design, USYD – Town Planner at Harbour Planning Pty. Ltd

He is our incumbent latest Town Planner with a Masters in Urban Design. Although without any maritime experience (he is quickly learning) he brings additional management skills and design flair with an energetic passion to our current team of Planners and Architects.

Puneet Kaur:

Bachelor of Architecture, Amity University India and Master of Construction Project Management and Property Development, UNSW – Town Planner at Harbour Planning Pty Ltd.

Our newest team member is exceptionally qualified in the urban environment and like Han and Adrian, she is quickly adapting to the Maritime and Fisheries Guidelines.

Aubrey Zhang:

Bachelor of Landscape Architecture, Qingdao University and Master of Landscape Architecture, UTS, Master of Urban Design, USYD. The Australian Institute of Landscape Architects (AILA) Member – Landscape Architect at Harbour Planning Pty. Ltd

She is remarkably qualified in Landscape Architecture and is providing another fact to our clients' waterfront consulting needs.

Craig Turner:

Consultancy Manager

Has no formal qualifications except for evolving, since 1978, to the guidelines and the ever-changing rigours of both marine construction and marine consultancy. He has been intimating to the ever ongoing and expanding raft of requests, legislation, personalities and changes that continue through the ranks of Government and Semi Government Stakeholders.

Lyn Watson:

Office Manager and Office Mum as well as Credit Accounts Supervisor.

Lyn coordinates the interface between our clients, their initial expectations and then directs the Planners with our in-place systems to commence the processes to the numerous Government Stakeholders.

ATTACHMENT A: AERIAL LOCALITY MAP



Aerial View Map: 963 Barrenjoey Road, Palm Beach NSW 2108
(Source: Nearmap, 2025)

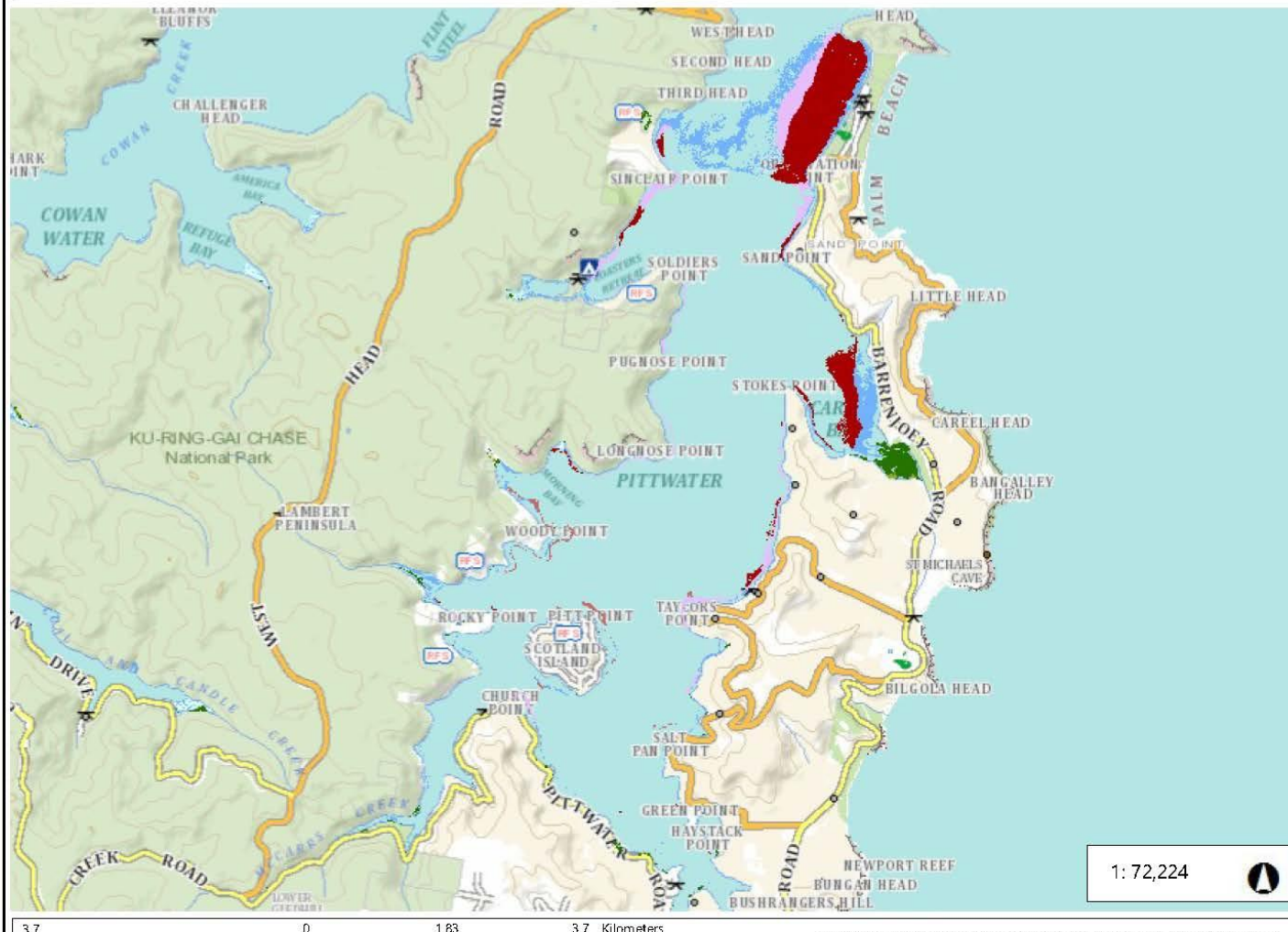
ATTACHMENT B: ENVIRONMENTAL MAP

Supplied by NSW Fisheries





Department of
Primary Industries



WGS_1984_Web_Mercator_Auxiliary_Sphere
© Department of Trade and Investment NSW

13-Jun-2024

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION



Legend

Estuarine Macrophytes

- Halophila
- Mangrove
- Mangrove/Saltmarsh
- Posidonia
- Posidonia - Sparse
- Posidonia/Zostera
- Ruppia
- Saltmarsh
- Zostera
- Zostera - Sparse
- Zostera/Ruppia

Notes

ATTACHMENT C: SITE PHOTOGRAPHS

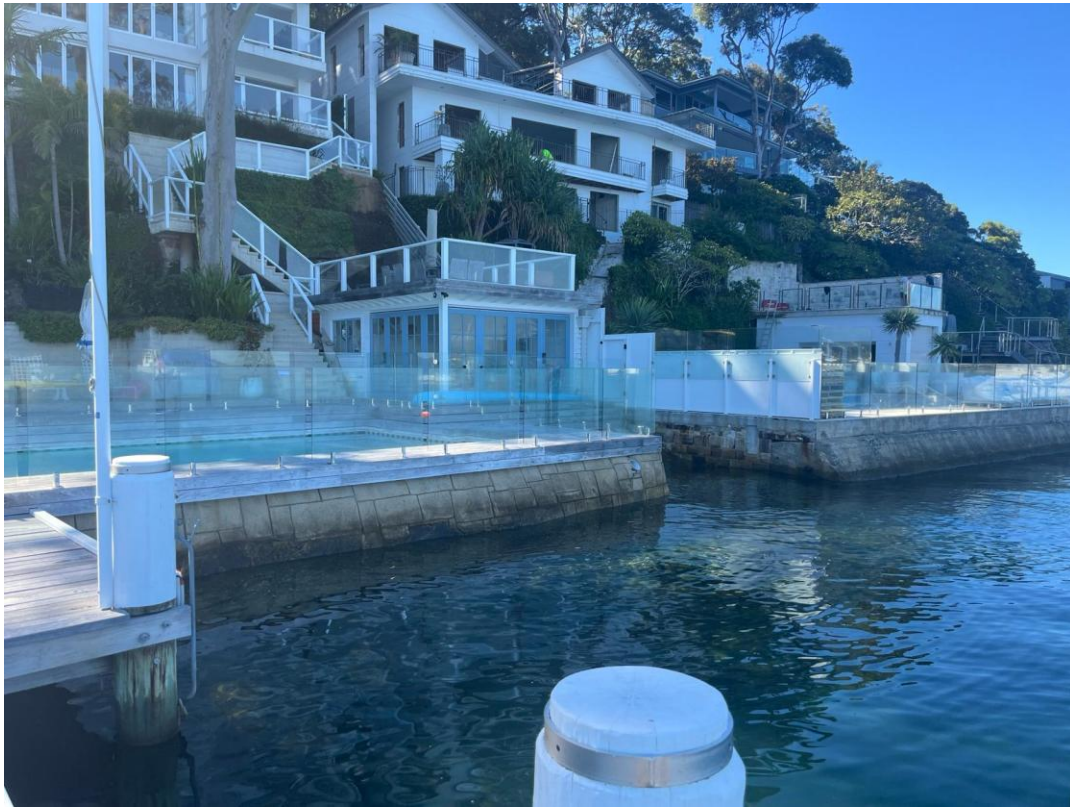




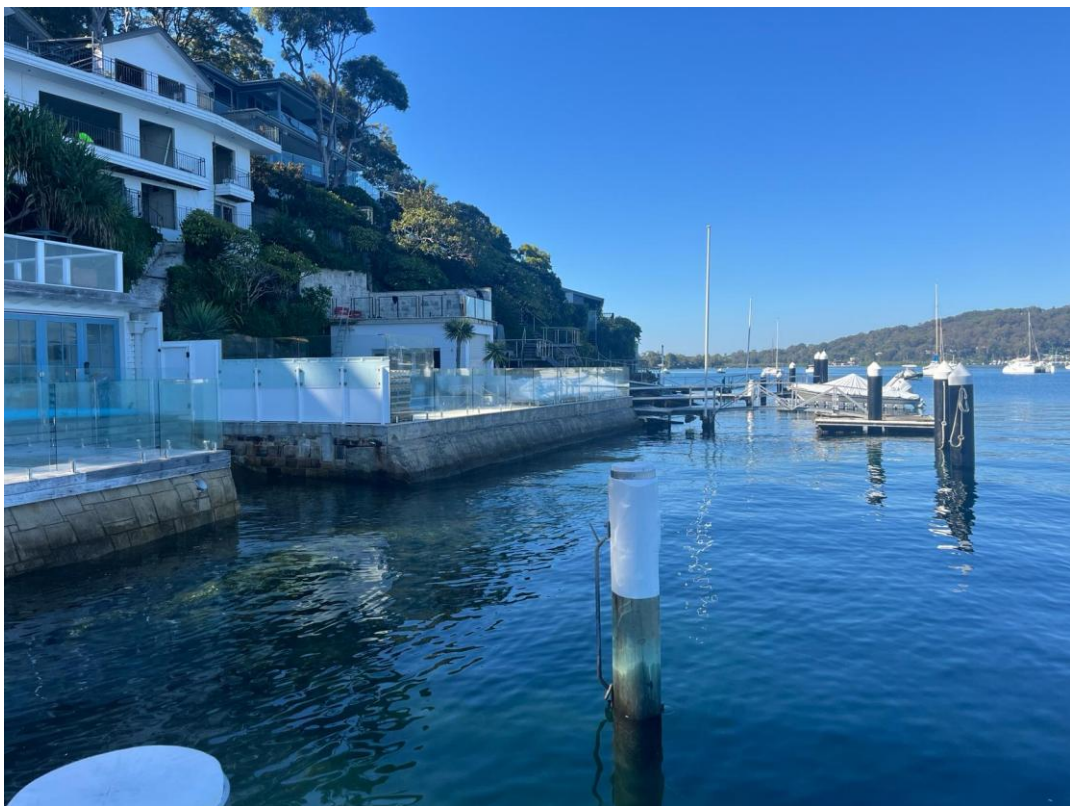
Seaward photo of the existing jetty, ramp and pontoon



Landward view jetty, ramp, seawall and swimming Pool



Landward view of the seawall, swimming pool, boatshed and access steps



Southern view freestanding pile, and a continuum of neighbouring structures



Northern view of the continuum of jetties and mooring pens in the locality



Neighbouring boat shed, timber deck, skid ramp and steps at 965 Barrenjoey Road to the north

ATTACHMENT D: THREATENED SPECIES REPORT



REPORT ON THE THREATENED SPECIES

963 Barrenjoey Road, Palm Beach NSW 2108

Part 1	
Endangered Species	
Name of Species	Effect of Existing Structure
The Grey Nurse Shark <i>Carcharias Taurus (Rafinesque, 1810)</i>	The Grey Nurse Shark is found in the waters of Bate Bay and parts of Botany Bay; however, it is unlikely that the Grey Nurse Shark would be found in the Pittwater. It is unlikely that the Grey Nurse Shark would be affected by the existing structure.
The Murray Hardyhead <i>Craterocephalus Fluvialilis (McCulloch, 1913)</i>	The Murray Hardyhead is a fresh water fish that is common to the Murray River in Victoria. It will not be affected by this existing structure.
The Eastern Freshwater Cod <i>Maccullochella Ikei Rowland</i>	The Eastern Freshwater Cod is a freshwater fish which is found in the Richmond River System. It will not be affected by this existing structure.
The Trout Cod <i>Maccullochella Macquariensis (Cuvier)</i>	The Trout Cod is a freshwater fish found in southern New South Wales and northern Victoria. It will not be affected by this existing structure.
The Oxleyan Pygmy Perch <i>Nannoperca Oxleyana Whitley</i>	The Oxleyan Pygmy Perch is a freshwater fish that would not be affected by the existing structure.
The River Snail <i>Notopala Sublineatat (Conrad, 1850)</i>	The River Snail is a freshwater snail that would not be affected by the existing structure.
The Green Sawfish <i>Pristis Zijsron (Bleeker, 1851)</i>	The Green Sawfish occurs mainly in the tropics from Broome to Southern Queensland with some individuals found as far south as Sydney. The Green Sawfish is a bottom dweller and is unlikely to be affected by this existing structure as no excavation of the sea bed will be undertaken.
Part 2	
Endangered Populations	
Name of Species	Effects of Existing Structure
The Purple Spotted Gudgeon <i>Mogurnda Adspersa (Castelnau, 1878)</i>	The Purple Spotted Gudgeon is a freshwater fish found in the Murray Darling Region. It will not be affected by this existing structure.
The Olive Perchlet <i>Ambassis Agassizii (Steindachner, 1966)</i>	The Olive Perchlet is a freshwater fish found in the Murray Darling System, Queensland, Western New South Wales, Victoria, and Western Australia. It is unlikely to be affected by the existing structure.
Part 3	
The Aquatic Ecological Community in the Natural Drainage System of the Lower Murray River Catchment	
Will not be affected by the existing structure.	
Part 4	
Species Presumed Extinct	
Name of Species	Effects of Existing Structure
Bennetts Seaweed <i>Vanvoorstia Bennettiana (Harvey) Papenfuss (1956)</i>	Bennetts Seaweed has only been collected from two localities in Port Jackson. It is unlikely that Bennetts Seaweed would be affected



	by the existing structure.
Adams Emerald Dragonfly <i>Archaeophya Adamsi</i> (Fraser, 1959)	Adams Emerald Dragonfly has only been found in four (4) localities in New South Wales which does not include the Woronora River. It is unlikely that Adams Emerald Dragonfly would be affected by the existing structure.
Silver Perch <i>Bidyanus Bidyanus</i> (Mitchell, 1838)	The Silver Perch is a vulnerable species that is freshwater. It is unlikely that the Silver Perch would be affected by the existing structure.
Buchanans Fairy Shrimp <i>Branchinella Buchananensis</i> (Geddes, 1981)	Buchanans Fairy Shrimp is a small crustacean that is found in lakes that dry during periods of the year. It is unlikely that the Buchanans Fairy Shrimp will be affected by the existing structure.
Part 5 Additional List of Endangered Species	
Name of Species	Effects of Existing Structure
Great White Shark <i>Carcharodon Carcharias</i> (Linnaeus, 1758)	The Great White Shark is normally found in deep sea water off the coast of New South Wales and surrounding areas. The Great White Shark is pelagic and would be unlikely to enter the Pittwater on a regular basis and therefore would be unlikely to be affected by the existing structure.
Black Cod <i>Epinephelus Daemeli</i> (Gunther, 1876)	The Black Cod is found on coastal and off-shore reefs and islands from southern Queensland to eastern Victoria. Yet lives in the craggy seabed in areas like the mouth of the Pittwater. Due to the non excavation of the seabed, the Black Cod is unlikely to be affected by the existing structure.
Macquarie Perch <i>Macquarie Australiasica</i> (Cuvier, 1830)	The Macquarie Perch is a vulnerable freshwater species. It is unlikely to be affected by the existing structure.
Southern Pygmy Perch <i>Nannoperca Australis</i> (Gunther, 1861)	The Southern Pygmy Perch is a freshwater fish and therefore is unlikely to be affected by the existing structure.
Part 6 Key Threatening Processes	
The introduction of fish to freshwaters within a river catchment outside their natural range.	No fish are to be introduced into the proposed site during construction.
The degradation of native riparian vegetation along New South Wales water courses.	There will be no significant increase in the amount of sediment and nutrients reaching into the bay during construction. There will be no reduction of the input of organic carbon, via leaves, twigs, and branches during construction. The river bank in this specific case has been replaced by a seawall and therefore cannot be destabilized. No overhanging vegetation will be removed resulting in loss of shade and shelter for fish.
The installation and operation of in-stream structures and other mechanisms that alter natural flow regimes of rivers and streams.	There will be installation of in-bay structures and other mechanisms, however, they are in keeping with the existing marine structures and subsequently would not alter the tidal flow of the river.

ATTACHMENT E: STANDARD EROSION & SEDIMENT



STANDARD SEDIMENT AND EROSION CONTROL DETAILS

963 Barrenjoey Road, Palm Beach NSW 2108

Waterfront Facilities –

Generally:

1. Where tidal movement allows, materials are to be delivered by barge so as to not disturb the seabed.
2. Barges are to be moored in deep water where possible so as to not disturb the seabed.
3. Anchors should only be used as a last resort for mooring of barges.
4. Barges must have floating oil boom catching equipment in the event of any hydraulic leaks into the waterways.
5. Any land-based excavation into the seawall should be carried in a manner so as to protect the waterways from soil overflow i.e.: bunding/ hay bales.

Harbour Planning Pty Ltd

ATTACHMENT F: CONSTRUCTION MANAGEMENT PLANS



CONSTRUCTION MANAGEMENT PLAN

963 Barrenjoey Road, Palm Beach NSW 2108

Before start of construction:

1. Erosion & sediment control details to be installed before any site disturbance takes place.

Site access

Barge/Boat access to the site must be via a single-entry point that is stabilised to prevent tracking of sediment into the waterway.

Measures taken during construction period of watercraft facility

(Jetty, ramp, pontoons, skid ramp & berthing areas)

2. Where tidal movement allows, materials are to be delivered by barge so as not to disturb the seabed.
3. All materials are to be stored on barge.
4. Barges are to be moored in deep water where possible so as to not disturb the seabed, spud (pole supported) style.
5. Anchors should only be used as a last resort for mooring of barges.
6. Barges must have floating oil boom catching equipment in the event of any hydraulic leaks into the waterways.
7. Any land-based excavation into a seawall should be carried in a manner so as to protect the waterways from soil overflow i.e.: bunding/ hay bales, seaward floating booms.
8. Any disturbance to the existing structures or seabed shall be reinstalled to original condition prior to site disestablishments.

Materials used for construction

1. All floating devices are to be prefabricated at the factory so no unnecessary noise or odours are produced on site.
2. All small batch concrete is mixed, in a concrete mixer prior to installation into piers (inshore) so that no concrete slurry leeches into water. Large batch concrete is delivered, pumped after mixing offsite.
3. All steel components are to be treated with hot dipped galvanised agents so that steel fasteners do not rust and therefore do not leech minerals into the sea bed or river.
4. All timber to be used in construction is Australian hardwood. It comes from private plantation and is not purchased from the state forest.

Construction Methodology

- 250 HDPE POLY PE 100 SERIES 1 PIER
- 300mm Toe Turpentine Pile

1. Site information is limited and the descriptions of the materials and conditions on site may vary. No guarantee is given that those site conditions encountered will not vary across the frontages.

2. The contractor shall be responsible for assessing the information provided and conducting any further investigation they may deem necessary, further contact for confirmations care of Engineer.
3. Piles to be installed using appropriate plant and techniques using an experienced and skilled licensed piling, crane or excavator operator.
4. Supply piles in one continuous length. Piles are not to be spliced unless approved by engineer in writing.
5. The founding level at the toe of the piles shown on the drawings are indicative only. These levels do not necessarily represent the actual founding levels. Engineer to confirm onsite.
6. All socketing/driving depths to be as specified. The contractor shall determine the pile lengths into rock or sediment to achieve adequate bearing.
7. Drilled socket holes to have a diameter slightly less than the diameter of the pile to ensure that pile is hard up against foundation for its full depth and circumference (Turpentine Piles) 1.2 - 1.5mt into rock, subject Eng. and Geo. information.
8. No excavation or jetting of piles shall be permitted.
9. The nominated pile design capacities and embedment are to be achieved. Engineering to confirm.
10. Pile records shall be sufficient to satisfy the engineer that the foundation requirements have been achieved; pile embedment have been reached and that the pile design capacity has been reached.
11. Leave bark on all exposed turpentine piles. Paint top 1.2mt of pile white.
12. All timber pile heads to be ringed with a snug fit gal steel ring 50mm fitted.
13. If the seabed is rock or there is not sufficient overburden to achieve sleeve penetration, then core drill the pile diameter to 0.6 - 0.8mt deep and socket the pile sleeve into sound rock (Poly Piers).
14. Contractor shall establish the ground conditions and determine poly pier lengths in advance.
15. 50 MPA concrete. Poly Pier minimum wall thickness 6.0mm. Prepare and clean rock surface level.
16. Remove all loose seabed material from out of the drilled pier hole base to achieve a firm fit/bond.
17. Concrete shall be continuous pour by tremie. Without penetrating of the Poly Pier to install any attachments or bolts.
18. The design assumptions are shown on the drawings. Conditions may vary. The contractor shall make their own assessment of the geotechnical conditions. The contractor shall be responsible for assessing the information provided and conducting any further investigations they may deem necessary to ensure proper founding of the piles to ensure the design pile loads are achieved. Engineer to confirm.

Harbour Planning Pty Ltd

**ATTACHMENT G: ABORIGINAL HERITAGE
INFORMATION MANAGEMENT SYSTEM (AHIMS)
SEARCH RESULT**



AHIMS Web Services (AWS) Search Result

Your Ref/PO Number : Phillips 2

Client Service ID : 982260

Craig Turner

Date: 06 March 2025

PO Box

Cronulla New South Wales 2230

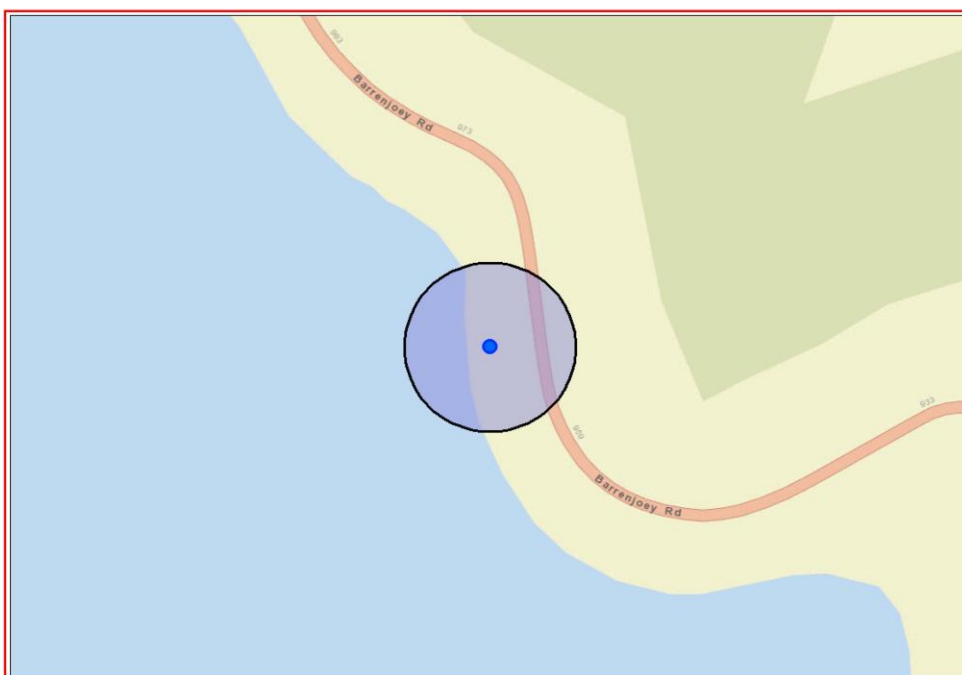
Attention: Craig Turner

Email: planner@harbourplanning.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Address : 963 BARRENJOEY ROAD PALM BEACH 2108 with a Buffer of 50 meters, conducted by Craig Turner on 06 March 2025.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *



HARBOUR PLANNING

WATERFRONT CONSULTANCY

