

## Statement of Environmental Effects

For: Northern Beaches Council

Site: 158 Crescent Road  
NEWPORT

Date: 13 May 2019  
(Amended 7-12-20)

Our Ref: 7188

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Registered Surveyor

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## 1. PROPOSAL

To construct a seawall required for bank stabilisation which includes reclamation, proposed berthing area and the authorisation of a pontoon and one mooring pile.

## 2. THE SITE

The site is located on the southern shore of Old Mangrove Bay in the southern limits of Pittwater (see Figure 1). Access to the site is via the Pittwater Waterway or the adjoining freehold land. The existing waterfront structures are for residential use and are noted in Schedule 3 licence diagram of LI572188. Structures existing below the Mean High Water (MHW) boundary are located generally in accordance with the Schedule 3 licence diagram of the aforementioned licence except for the pontoon and single mooring pile, the authorisation of these form part of this Development Application.

The freehold land slopes steeply from the waterfront to Crescent Road, is vegetated with a variety of trees and shrubs and has buildings and structures typically associated with residential use upon.

The higher intertidal zone contains a small patch of *Juncus* spp. plants (reeds) along the shoreline. A small seablite bush (*Suaeda australis*) and a grey mangrove tree (*Avicennia marina*) were found along the shoreline fronting neighbouring properties. The lower intertidal zone consists of a moderately sloping sea bed made of silt and gravel. The gravel was colonized by Sydney Rock Oysters (*Saccostrea glomerata*). For details refer to the Marine Habitat survey report prepared by H2O Consulting Group

Neighbouring properties all have similar waterfront facilities including jetties, boatsheds, seawalls, reclamations, skid ramps, slipways, berthing area and piles etc.

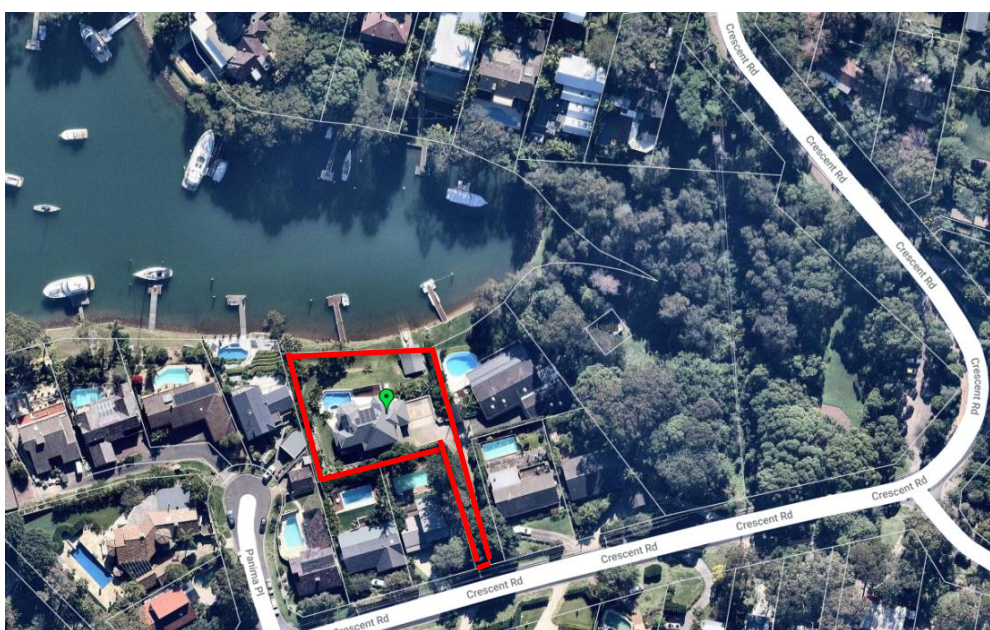


Figure 1: Locality

### 3. ZONING AND PLANNING COMPLIANCE

#### 3.1 PITTWATER LOCAL ENVIRONMENT PLAN 2014 (PLEP)

The proposal is below the Mean High Water (MHW) boundary and is therefore within Councils W1 Natural Waterways zone (Fig.2). The proposal is permissible within consent in zone W1 as it is within Area 23 (Additional permitted uses) (Fig.3).

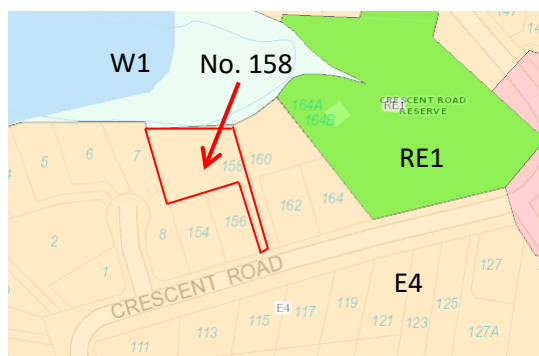


Figure 2: Pittwater Land Zoning Map

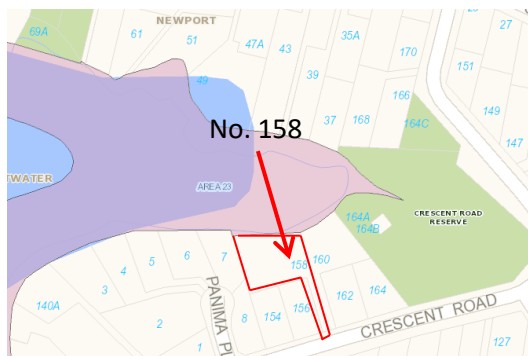


Figure 3: Pittwater Area 23 Map

The applicable sections of the PLEP relating the proposal are as follows:

- (i) Height of buildings (PLEP 4.3)
  - The Height of Building Map HOB\_017 indicates a maximum height of “building” located upon Crown Land (below the MHW boundary) as 4m. The proposal does not include any structures above this height and is therefore of no relevance
- (ii) Development below Mean High Water Mark (PLEP 5.7)
  - See sections 3.2(xvii) & (xx)
- (iii) Acid Sulphate soils (PLEP 7.1)
  - The Acid Sulphate Soils Map ASS\_017 classifies the land on which the proposal is located as Class 1. It is uncertain as to whether an acid sulphate management plan is required for this proposal as section 7.1(6) of PLEP states it is not required if the proposal disturbs less than 1 tonne of soil and the works are not likely to lower the water-table. This proposal is likely to disturb minimal soil during the construction of the seawall foundations (well less than a tonne) and is will have no effect on the existing water table.
- (iv) Earthworks (PLEP 7.2)
  - No major excavation is required for this proposal, only a minor amount is required in order to create a level platform for the foundation of the seawall as mentioned above. The proposed seawall is positioned such that it follows the existing bank tightly so minimal backfill will be required. The proposal will not impact on the existing local drainage patterns or on the Pittwater waterway. Currently the residence stormwater is conveyed to the waterway via two 100mm Diameter PVC pipes and the overland runoff feeds naturally into the waterway, and this will continue.

(v) Biodiversity (PLEP 7.6)

- The freehold land is noted as a biodiversity area on Councils Biodiversity Map BIO\_017. The proposal is below the MHW boundary and within both the intertidal (seawall) and subtidal zones (berthing area, pontoon and mooring pile). A Marine Habitat Survey was undertaken by H2O Ecology (report enclosed) and provides recommendations on how to protect the local marine habitat along with construction techniques to mitigate any potential damage that may occur during construction. The Marine Habitat Survey states the seawall will provide substantial long-term environmental improvements to the shoreline by reducing erosion and improving stability. Fisheries have provided Land Owners Consent to the proposal (see enclosed) and advised that the proposal will require an Integrated Development Application (IDA) including a Section 201 permit for reclamation.

(vi) Geotechnical Hazard (PLEP 7.7)

- The Geotechnical Hazard Map GTH\_017 appears to classify a strip of land below the MHW boundary as H1 and the remainder of the waterway as “unclassified”.
- Typically, proposals below the MHW boundary do not require a Geotechnical Risk Assessment however in this instance as a seawall is proposed Geotechnical Risk Assessment has been undertaken and accompanies this Development Application.

(viii) Limited development on foreshore area (PLEP 7.8)

- The proposal is within the Foreshore Building Line as indicated Map FBL\_017 and structures proposed are permissible under section 7.8(2)(b) of PLEP.

### 3.2 PITTWATER DEVELOPMENT CONTROL PLAN 21 (PDCP21) (25<sup>TH</sup> NOVEMBER, 2015)

Compliance to the relevant controls stated in PDCP21 relating to a proposal only are as follows;

(i) **Landslip Hazard (B3.1)**

As stated in section 3.1(vi) of this report a Geotechnical Risk Assessment has been undertaken and accompanies this report. A seawall is proposed in order to stabilise the existing bank which in turn will provide safe foreshore access by the adjoining land owner and the public. It is important to note that access to the jetty in the current form is unsafe as there is a “gap” between the bank and the jetty, refer to figure 9. The proposed seawall will “bridge the gap” creating a safe connection between the existing jetty and the land.

Seawalls exist along the majority of the waterfront in Old mangrove Bay and thus the proposal will be in keeping with the surrounding landscape. The seawall will form the “missing link” by joining the existing seawalls located to the east and west (see Fig’s 5 & 6).





Figure 4 Subject site existing waterfront



Figure 5 neighbouring existing seawall (west)



Figure 6 neighbouring existing seawall (east)

## (ii) Estuarine Hazard-Low Density Residential (B3.7)

Section B3.7 of the DCP stipulates that:

*Developments that propose mitigation works that modify the wave action or tidal inundation behaviour within the development site including the filling of land, the construction of retaining structures and the construction of wave protection walls may be permitted on a merit basis subject to demonstration through an Estuarine Risk Management Report that:*

- *The wave action or tidal inundation mitigation works do not have an adverse impact on any surrounding property or estuarine processes up to the Estuarine Planning Level; and,*
- *The wave action or tidal inundation mitigation works result in the protection of the existing and proposed development from inundation up to the Estuarine Planning Level.*
- *The wave action or tidal inundation mitigation works do not have an adverse impact on the environment. (This includes but is not limited to the altering of natural flow paths and the clearing of vegetation).*

As disclosed in section 3.2(i) the proposed seawall is a necessary for bank stabilisation. The existing earth bank has been gradually undermined over the years and is now at a point which requires actions to be taken to prevent further erosion and possible slips. The proposed seawall has been designed such that it follows tightly the natural curvature of the bank and be constructed

to a height and of the same material as the existing seawalls located on the adjoining waterfronts, this is essentially the top of the existing earth bank. It should be noted the toe of seawall level is proposed to be RL0.55AHD which is the value of Mean High Water, meaning that the wall will only be impacted by water essentially half the time. In light of the above it is envisaged the seawall will not cause any adverse impacts to surrounding property or environment and is in fact not dissimilar to what already exists naturally, it will simply prevent further erosion and possible collapse.

**(iii) Mangrove Conservation (B4.12)**

The proposal is below the MHW boundary and within both the intertidal and subtidal. A Marine Habitat Survey was undertaken by H2O Ecology (report enclosed) and has noted that a remanent grey mangrove tree was found adjacent to the neighbouring property to the west approximately 2m from the boundary. The mangrove will not be impacted by the proposed seawall.

**(iv) Seagrass Conservation (B4.16)**

The Marine Habitat Survey undertaken by H2O Ecology provides comment on the existing local marine habitat and recommendations on how to protect this habitat with construction techniques to mitigate any potential damage that may occur during construction. The proposal has consent from Department of Primary Industries (Fisheries) and advised that the proposal will require an Integrated Development Application (IDA) including a Section 201 permit for reclamation

**(v) Estuarine Habitat (B4.19)**

Refer to sections 3.1(v) & 3.2(iii & iv). As mentioned above a Marine Habitat Survey was undertaken by H2O Ecology investigating the potential impacts of the proposal on the local Estuarine Habitat. The report concludes the following;

- *Disturbance and potential loss of intertidal vegetation within the footprint of proposed seawall. The seawall will provide substantial long-term environmental improvements to the shoreline by reducing erosion and improving stability.*
- *Potential for short term increases in turbidity during the high tide from construction associated with the shoreline improvement works. Any impacts on turbidity can be controlled with the use of silt curtains during construction works.*
- *Increased shading of benthic habitat under the berthing area. As no seagrass was observed in the vicinity of the subject site, potential shading impacts on the benthic habitat are of minimal ecological significance.*
- *Creation of artificial habitat from the permanent presence of shoreline structures. This may increase fish presence at high tide and provide additional substrate for intertidal sessile invertebrates. Given the presence of numerous nearby structures it is expected that these structures would be colonized by biota similar to that found on the nearby structures.*

In light of the above the berthing area, mooring pile and pontoon will have no impact on the existing benthic habitat and the seawall will provide substantial long-term environmental improvements to the shoreline along with creating artificial marine habitat during high tide.

**(vi) Protection of Estuarine Water Quality (B4.20)**

Refer to Marine Habitat Survey report.

**(vii) Stormwater Drainage Systems and Natural Watercourses (B5.12)**

The proposal will not impact the existing stormwater drainage of the subject site. There are currently two 100mm diameter PVC pipes (see site plan) which appear to convey the residence stormwater to the waterway. These pipes will remain in their current location and state and the proposed seawall will be constructed such that it accommodates these pipes within the wall. The overland runoff will not be impacted as the proposed top of seawall level matches closely to the existing top of bank.

**(viii) Development on waterfront land (B5.13)**

No natural watercourse will be impacted by the proposal. The structures proposed do not create the need of treatment or conveyance of any stormwater. The existing stormwater measures used to convey the stormwater from the residence to the waterway will remain in their current state as mentioned in section 3.2(vii)

**(ix) Construction & Demolition- Excavation and Landfill (B8.1)**

No major excavation is required for this proposal, only a minor amount is required in order to create a level platform for the foundation of the seawall. The proposed seawall is positioned such that it follows the existing bank tightly so minimal backfill will be required

**(x) Construction & Demolition- Erosion and Sediment management (B8.2)**

Refer to Marine Habitat Survey report for recommendations to reduce turbidity in the waterway during construction.

**(xi) Character as viewed from a public place (D15.1):**

The proposed structures are not dissimilar to the scale and general form of those in the surrounding area (see Fig 7 & 8). The proposal seeks authorisation of a larger pontoon and single mooring pile along with development consent for a permanent berthing area and seawall. The general configuration of the waterfront facility has been in existence for well over 20 years and therefore not expected to impact on the existing character. The proposed height of the seawall will match in closely to the existing adjoining seawalls and to those fronting the bay, therefore will not create unreasonable impacts in terms of appearance of bulk.



Figure 7: Subject and neighbouring (No. 7 Panima Place) waterfront facilities (west)





Figure 8: Subject and neighbouring (No.160 Crescent Road) waterfront facilities (east)

(xii) **Scenic Protection (D15.2):**

The proposed seawall will be approximately the same height and constructed of the same material as the existing seawall located on the adjoining waterfronts. The appearance will not be dissimilar to that of the neighbouring properties. It should be noted that the height of the seawall will be similar to the existing top of bank and therefore will have no impact on visual bulk. The existing bank has been subject to moderate erosion and a seawall is required to mitigate any further erosion.

(xiii) **Building colours and materials (D15.3):**

The seawall will be constructed of irregular sized stone blocks similar to those used for seawalls on neighbouring waterfronts.

(xiv) **Side and rear building line (D15.7):**

All structures proposed are located below the MHW boundary therefore section D15.7 is of no relevance to this proposal.

(xv) **Fences (D15.10):**

No fencing is proposed.

(xvi) **Waterfront Lighting (D15.11):**

No lighting is proposed.

(xvii) **Development seaward of the Mean High Water Mark (D15.12):**

The proposed structures are located below the MHW boundary and permissible with consent.

The Impacts of the proposal on the estuarine habitat have been documented in the Marine Habitat Survey Report by H2O Ecology (report enclosed) along with recommendations to mitigate any potential impacts on the estuarine habitat during construction.

The existing public foreshore access along the frontage of the site will not be impacted upon by this proposal. In fact the construction of the seawall will improve the current access by creating a level strip of land which will not only increase safety but also potentially allow access for people with disabilities.



(xviii) **Lateral Limits (D15.13):**

All works are contained within the “division of waterway” limits (DOW), as shown on the plan. The “division of waterway” limits have been defined by survey and plotted in accordance with D15.13.

(xix) **Minimum frontage for waterfront development (D15.14)**

The subject lot has a frontage to Pittwater of approximately 45.43m from corner to corner and therefore permissible in accordance with this section. It should be noted that the waterfrontage of the subject lot is particularly large for the waterway and can easily accommodate the structures without creating any visual impact.

(xx) **Waterfront development (D15.15)**

This proposal seeks to authorise the existing pontoon and mooring pile as noted on Licence LI572188 along with approval of a berthing area and seawall.

The proposed Berthing Area dimension are 11.25x4m, although these dimensions differ to the standard dimension of 9x5m the area of occupation equates i.e. both 45m<sup>2</sup>. The subject properties existing structures, neighbouring waterfront facilities, water depths and navigation within the bay were all considerations given in determining the appropriate size, location and orientation of the proposed berth, see below:

- The proposed berth utilises the existing two fender piles and the mooring pile (which requires authorisation, see Fig 9) and therefore does not propose any additional structures. As a result, the proposed berth length is 11.25.
- The waterfront facilities of neighbouring properties to the east, west and north (opposite side of bay) will not be impacted upon by the proposed berth, access via the bay by marine craft will exist in its current state.
- The proposed berth is orientated parallel to the shore due to water depths and to minimise the impact on the navigable water. It should be noted that waterways with narrow navigable water such as Old Mangrove Bay, Winji Jimmi Bay and McCarrs Creek, berths are predominately oriented parallel to the shore.
- The proposed width of the berth has been reduced to 4m minimising impact on the navigable water.

It should be noted that all parties with an interest in the land (i.e. TfNSW, Fisheries, Crownlands) have raised no objection to the size and position of the berthing areas and as such have given consent to the development.

An underwater survey of the seabed and underwater species has been carried out beneath the proposal. The report, carried out by H2O Ecology, concludes that the aquatic ecological conservation requirements of Pittwater 21 DCP and the Fisheries Management Act would be complied with (report enclosed). A response from the Department of Primary Industries (fisheries) that gives draft consent to this proposal is also enclosed.

Roads and Maritime Services have carried out a navigational assessment of the proposal and have determined that there are no navigational issues with this proposal (report enclosed)

Existing  
mooring pile to  
be authorised



Figure 9: Existing structures

#### (xxi) **Seawalls (D15.18)**

The existing bank is unstable in its current form and a seawall is required to prevent further erosion, stabilise the bank and provide safe foreshore access by the adjoining landowner and the public. The proposed seawall will follow tightly the natural curvature of the bank and be approximately the same height and constructed of the same material as the existing seawalls located on the adjoining waterfronts. The seawall will form the “missing link” by joining the existing seawalls located to the east and west. Seawalls exist along most of the waterfronts in Old mangrove Bay and thus the proposal will be in context with the surrounding landscape.

The top of the proposed seawall is 1.6 AHD which equates to 2.525 Tide level. This height is approximately 150mm over the highest ever recorded tide in Sydney of 2.4 Tide level in 1974.

The seawall is designed in accordance with the Office of Environment and Heritage (OEH) document “*Environmentally friendly seawalls- A guide to improving the environmental value of seawalls and seawall-lined foreshores in Estuaries*”. It is proposed to be gently sloping and constructed of regular stone blocks incorporating small crevices in the aim of creating fish habitat.

The seawall will offer long-term environmental improvements to the shoreline and potentially create marine habitat during high tide periods, refer to Marine Habitat Survey report for further details.

#### **4. STATE ENVIRONMENTAL PLANNING POLICY (COASTAL MANAGEMENT) 2018 (SCM18)**

The proposal is within the Coastal Environment (Division 3) and Coastal Use (Division 4) areas as outlined in SCM18. Assessment of the impacts of the proposal in accordance with Division 3 & 4 is as follows.

##### ***Division 3 Coastal environment area***

##### ***Development on land within the coastal environment area***

- (1) *Development consent must not be granted to development on land that is within the coastal environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following:*

- (i) *the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment,*
    - The proposal has no impact the biophysical or hydrological environment. Impacts of the proposal on the local aquatic environment have been addressed in the Marine Habitat Survey report.
  - (ii) *coastal environmental values and natural coastal processes,*
    - It is not envisaged that the proposal will have any additional impacts on the existing coastal processes.
  - (iii) *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 proposal is not within a coastal lake. The proposal may have a short term impact on the local water quality and marine habitat, refer to Marine Habitat Survey report for details and recommendations.
  - (iv) *marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms,*
    - Impacts of the proposal on local marine vegetation and habitats have been investigated, refer to Marine Habitat Survey report.
  - (v) *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,*
    - The existing public foreshore access along the frontage of the site will not be impacted upon by this proposal. In fact the construction of the seawall will improve the current access by creating a level strip of land which will not only increase safety but also potentially allow access for people with disabilities from the public reserve (Crescent Road Reserve) along the waterfront. Access along the foreshore from the neighbouring property to the west becomes increasingly impeded due to fencing and structures.
  - (vi) *Aboriginal cultural heritage, practices and places,*
    - The site is not indicated on the Heritage Map HER\_017 in the PLEP therefore it is envisaged that no Aboriginal cultural heritage, practices and places will be impacted by this proposal. It should be noted however that if during construction any Aboriginal objects/relics are found, they will be preserved and further advice sought to protect the items.
  - (vii) *the use of the surf zone.*
    - Not applicable to this proposal
- (2) *Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:*
- (a) *the development is designed, sited and will be managed to avoid an adverse impact referred to in subclause (1), or*
  - (b) *if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or*
  - (c) *if that impact cannot be minimised—the development will be managed to mitigate that impact.*

- The proposal has no adverse environmental, cultural or public impacts. It has been designed and sited to avoid adverse impacts referred to in subclause (1) above. Similar waterfront structures are common throughout Pittwater which can achieve acceptable environmental, cultural and public outcomes therefore it is not unreasonable to expect similar outcomes from this proposal.

#### **Division 4 Coastal use area**

##### **Development on land within the coastal use area**

(1) *Development consent must not be granted to development on land that is within the coastal use area unless the consent authority:*

(a) *has considered whether the proposed development is likely to cause an adverse impact on the following:*

(i) *existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,*

- The existing public foreshore access along the frontage of the site will not be impacted upon by this proposal. In fact the construction of the seawall will improve the current access by creating a level strip of land which will not only increase safety but also potentially allow access for people with disabilities from the public reserve (Crescent Road Reserve) along the waterfront. Access along the foreshore from the neighbouring property to the west becomes increasingly impeded due to fencing and structures.

(ii) *overshadowing, wind funnelling and the loss of views from public places to foreshores,*

- No public place nearby will be affected by view loss with this proposal. It is not envisaged that the proposal will create any additional wind funnelling, if any exists at all. The proposed berthing area will shade the areas of seafloor directly beneath it. The impacts of the shadowing have been considered and addressed in the Marine Habitat Survey.

(iii) *the visual amenity and scenic qualities of the coast, including coastal headlands,*

- The proposal will not create any additional unreasonable impacts in terms of appearance, it is in keeping with the nautical character of Pittwater and will complement the surrounding facilities.

(iv) *Aboriginal cultural heritage, practices and places,*

- The site is not indicated on the Heritage Map HER\_017 in the PLEP therefore it is envisaged that no Aboriginal cultural heritage, practices and places will be impacted by this proposal. It should be noted however that if during construction any Aboriginal objects/relics are found, they will be preserved and further advice sought to protect the items.

(v) *cultural and built environment heritage, and*

- No cultural or built heritage exists at the subject site and therefore is not impacted upon by this proposal.

(b) *is satisfied that:*

(i) *the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a), or*



- (ii) *if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or*
- (iii) *if that impact cannot be minimised—the development will be managed to mitigate that impact, and*
  - The proposal has no adverse impacts on public access, views, scenic quality or aboriginal, cultural or built heritage. The proposed seawall is necessary for the stabilisation of the bank and protection of the waterway. The subject water recreation structures will be consistent with water recreation structures not only locally but also throughout Pittwater.
- (c) *has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development.*

The existing and proposed water recreation structures are not dissimilar to those of the neighbouring properties in relation to bulk, scale, size and construction methodology. The proposal is in keeping with the nautical character of the Pittwater and will complement the surrounding facilities.

## **5. COASTAL MANAGEMENT ACT 2016 (CMA16)**

In accordance with Section 27 of CMA16 the proposal is permissible with consent. Clause 27 is as follows;

*Development consent must not be granted under the Environmental Planning and Assessment Act 1979 to development for the purpose of coastal protection works, unless the consent authority is satisfied that:*

- (a) *the works will not, over the life of the works:*
  - (i) *unreasonably limit or be likely to unreasonably limit public access to or the use of a beach or headland, or*
  - (ii) *pose or be likely to pose a threat to public safety, and*
- (b) *satisfactory arrangements have been made (by conditions imposed on the consent) for the following for the life of the works:*
  - (i) *the restoration of a beach, or land adjacent to the beach, if any increased erosion of the beach or adjacent land is caused by the presence of the works,*
  - (ii) *the maintenance of the works.*

For Section 27(a), the works will not unreasonably limit public access to or the use of a beach or headland. Existing public foreshore access along the frontage of the site will not be impacted upon by this proposal. In fact the construction of the seawall will improve the current access by creating a level strip of land which will not only increase safety but also potentially allow access for people with disabilities from the public reserve (Crescent Road Reserve) along the waterfront. It is not envisaged that the proposal will have any negative impact on public safety.

For Section 27(b), the proposed will reduce the erosion of the shoreline which is currently occurring. There may be minor scouring at the base of the seawall once constructed however it is unlikely as the cause of this is typically related to turbulence created by wind and boat wash both of which are unlikely to occur in this part of Old Mangrove Bay as it is narrow and at the limit of the bay. Given the low possibility of any damage to occur on the structures it is considered to be unnecessary to be applying a maintenance condition as per Section 27(b)(ii) in this case. It should be noted that any future maintenance to structures can be done in accordance with the maintenance clause in the Crown Land Licence Agreement which is issued once Development Consent is received.

## **6. CONCLUSION**

The proposal is in compliance with PLEP 2014 and PDCP 21 and satisfies the requirements of SCM18 and CMA16.

A Marine Habitat Survey report was prepared to investigate the impacts of the proposal on the local marine habitat. The report concludes that the aquatic ecological conservation requirements of Pittwater 21 DCP and the Fisheries Management Act would be complied with.

The proposal has consents from Department of Primary Industries (Fisheries) and Roads and Maritime Services.

The proposal satisfies all zoning and planning objectives and is worthy of conditional consent to enable the construction of the proposed seawall and authorisation of the existing pontoon and mooring pile.

Yours faithfully



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