

REFERRAL OF A PROJECT FOR A DECISION ON THE NEED FOR ASSESSMENT UNDER THE *ENVIRONMENT EFFECTS ACT 1978*

REFERRAL FORM

The *Environment Effects Act 1978* provides that where proposed works may have a significant effect on the environment, either a proponent or a decision-maker may refer these works (or project) to the Minister for Planning for advice as to whether an Environment Effects Statement (EES) is required.

This Referral Form is designed to assist in the provision of relevant information in accordance with the *Ministerial Guidelines for assessment of environmental effects under the Environment Effects Act 1978* (Seventh Edition, 2006). Where a decision-maker is referring a project, they should complete a Referral Form to the best of their ability, recognising that further information may need to be obtained from the proponent.

It will generally be useful for a proponent to discuss the preparation of a Referral with the Department of Planning and Community Development (DPCD) before submitting the Referral.

If a proponent believes that effective measures to address environmental risks are available, sufficient information could be provided in the Referral to substantiate this view. In contrast, if a proponent considers that further detailed environmental studies will be needed as part of project investigations, a more general description of potential effects and possible mitigation measures in the Referral may suffice.

In completing a Referral Form, the following should occur:

- Mark relevant boxes by changing the font colour of the 'cross' to black and provide additional information and explanation where requested.
- As a minimum, a brief response should be provided for each item in the Referral Form, with a more detailed response provided where the item is of particular relevance. Cross-references to sections or pages in supporting documents should also be provided. Information need only be provided once in the Referral Form, although relevant cross-referencing should be included.
- Responses should honestly reflect the potential for adverse environmental effects. A Referral will only be accepted for processing once DPCD is satisfied that it has been completed appropriately.
- Potentially significant effects should be described in sufficient detail for a reasonable conclusion to be drawn on whether the project could pose a significant risk to environmental assets. Responses should include:
 - a brief description of potential changes or risks to environmental assets resulting from the project;
 - available information on the likelihood and significance of such changes;
 - the sources and accuracy of this information, and associated uncertainties.
- Any attachments, maps and supporting reports should be provided in a secure folder with the Referral Form.
- A CD or DVD copy of all documents will be needed, especially if the size of electronic documents may cause email difficulties. **Individual documents should not exceed 2MB.**

- A completed form would normally be between 15 and 30 pages in length. Responses should not be constrained by the size of the text boxes provided. Text boxes should be extended to allow for an appropriate level of detail.
- The form should be completed in MS Word and not handwritten.

The party referring a project should submit a covering letter to the Minister for Planning together with a completed Referral Form, attaching supporting reports and other information that may be relevant. This should be sent to:

Postal address

**Minister for Planning
PO Box 500
EAST MELBOURNE VIC 3002**

Couriers

**Minister for Planning
Level 17, 8 Nicholson Street
EAST MELBOURNE VIC 3002**

In addition to the submission of the hardcopy to the Minister, separate submission of an electronic copy of the Referral via email to ees.referrals@dpcd.vic.gov.au is encouraged. This will assist the timely processing of a referral.

PART 1 PROPONENT DETAILS, PROJECT DESCRIPTION & LOCATION

1. Information on proponent and person making Referral

Name of Proponent:	Beaumaris Motor Yacht Squadron (BMYS)
Authorised person for proponent:	Peter Barnes
Position:	Commodore
Postal address:	PO Box 45. Black Rock VIC 3993
Email address:	peterbarnes@bordernet.com.au
Phone number:	(03) 9589 5156
Facsimile number:	(03) 9589 2019
Person who prepared Referral:	Mark Turnbull OAM
Position:	Project Manager
Organisation:	MDT Consulting Pty Ltd / LeisureCorp Pty Ltd
Postal address:	12 Edmanson Ave. Brighton VIC 3186
Email address:	mark@49er.com.au
Phone number:	0414 470 066
Facsimile number:	(03) 9642 8882
Available industry & environmental expertise: (areas of 'in-house' expertise & consultancy firms engaged for project)	<p>BMYS have engaged LeisureCorp P/L (Scott Eccleston) to act as project manager to oversee the development of concepts and feasibility for the redevelopment of BMYS in the creation of the BMYS Safe Harbour Project.</p> <p>LeisureCorp have expertise in the marine and leisure industry having previously undertaken the planning and delivery of the Sandringham Yacht Club redevelopment under the direction of then CEO Scott Eccleston.</p> <p>LeisureCorp has engaged MDT Consulting P/L (Mark Turnbull) as Project Manager to deliver the project to the submission of the Planning Permit application. Mark has a long history of infrastructure project management skills for both the government and private sectors.</p> <p>BMYS under the co-ordination of LeisureCorp have engaged the following technical sub-consultants to provide profession advice and reports in preparation of this EES referral:</p> <ul style="list-style-type: none"> • Richard Mabbin + Associates P/L (Richard Mabbin) – architectural services. • Atkins Marine Engineering P/L (Geoff Atkins) – marine engineering & coastal processes investigations. • Ainley Engineering Projects P/L (Graeme Ainley) – Drystack design • Redborough Mapping Service – Hydrographical Survey • Bellingham Australia (John Spragg) – Marina design. • Marine Science and Ecology (MSE) - Dr Jan Watson (Fossil Investigations) and Mr Harry Houridis (Marine Ecology). • LanePiper (Geotech & Environmental Engineers) – Cliff Geomorphology investigations.

	<p>In addition we have consulted with the following stakeholder and Government Agencies;</p> <ul style="list-style-type: none">• Dept. Planning and Community Development (DPCD).• Dept. of Sustainability and Environment (DSE).• Parks Victoria.• Aboriginal Affairs Victoria (AAV).• Bayside City Council (BCC).• Dept. of Environment, Water, Heritage and the Arts.• Marine Safety Victoria (MSV).• Yachting Victoria (YV).• Central Coastal Board (CCB).• Australian Heritage Council.• Heritage Victoria.
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2. Project – brief outline

Project title: BMYS – Safe Harbour Project

Project location: (describe location with AMG coordinates and attach A4/A3 map(s) showing project site or investigation area, as well as its regional and local context)

BMYS is located entirely on a reclaimed area of seabed on the eastern shore of Port Phillip (halfway between Ricketts Point – Beaumaris and Mentone Beach). The site is Crown land (foreshore and seabed) under an existing lease managed by the Department of Sustainability and Environment (DSE) and the Bayside City Council. The site is accessed from double lane access road off Beach Road (adjacent to Cromer Road) approximately 21 kilometres south east from Melbourne CBD.

Our Land Surveyor has given us co-ordinates of a point that is the extension of the western side of Cliff Grove in a south easterly direction to its intersection with the approximate high water mark. The AMG (Australian Map Grid) co-ordinates of this point are 328770, 5793664. However the AMG co-ordinate system has been superseded and the system that replaces it is known as MGA94. The MGA94 approximate co-ordinates of the same point as described above are 328880, 5793848.

Refer also to the attached A3 size Proposed Site Layout Drawing No. 2815-SK7 for Details of the proposed development. **(Appendix B)**

Location

Foreshore Beaumaris 3193 Vic Australia
Melways ref: 86 F8
AMG: 328770, 5793664

Postal Address

PO Box 45 Black Rock 3193

Contact Number

Tel: (03) 9589 5156
Fax: (03) 9589 2019

Email - bmys@bigpond.com.au

Refer to attached location plan. **(Appendix A)**

Short project description (few sentences):

The BMYS – Safe Harbour Project is the redevelopment of the existing club facilities to cater for the growing demand for recreational boating of the existing membership, both in number of vessels and the size of vessels as well as to modernise and update the facilities to comply with best practice environmental practises and better utilise the limited area available.

The redevelopment includes the following facilities:

- Rock breakwaters with public access to create an all weather safe harbour;
- Extension of the outfall drain within the breakwater to deep water;
- Waterfront boardwalk on the south west boundary with public access and kiosk;
- 120 floating marina berths;
- Three lane fully protected boat ramp;
- 78 berth “Dry stack” facility launching dock and “lay by” berths;
- “Pump-out” facilities;
- Rationalisation of car and trailer parking and circulation space; and
- New club house including function facility.

3. Project description

Aim/objectives of the project (what is its purpose / intended to achieve?):

The Beaumaris Motor Yacht Squadron was first established on this site in 1959 as a boat launching facility for club members. The club is predominately a trailerable power boat fishing club which over the past ten years has seen a significant increase in the more recreational boating activity outside of fishing. Since the establishment of the club the number of members has increased to its current membership capped at 700, and the site has undergone numerous expansions and redevelopment to both the club house facilities and boat launching facilities.

The existing boat launching facilities comprise of a central boat ramp which is unprotected from prevailing wind and wave conditions and additional eastern boat launching ramp constructed in the early 1990's partially protected by a rock wall groyne. The central ramp is only usable under fair (still) conditions and the eastern ramp is not safe on a large number of days.

With the change in member profile (i.e. more recreational boating) that the club has experienced, it has also witnessed a significant change in the type of vessel used by members. Historically the vessel profile was for less than 6 meter length light weight trailerable fishing vessels (i.e. tinnies, and open cabin boats). However in recent years there has been a significant trend for larger recreational boats, with far more diverse uses (including boats capable of overnight trips). As the size and the weight of these vessels has increased, so have the existing facilities of the club become unsuitable due to the unprotected nature of the launching ramps, limited parking, no on-site storage, and traffic congestion and circulation issues both within the site and with the access on and off Beach Road. It is now clear that the current facilities have been out grown by the existing membership and this trend is expected to increase.

In summary, although the current facilities are in good, well maintained condition they are not functional, do not best utilise the existing site area, are not best practise from an environmental perspective, and in many ways no longer meet either the current or future requirements of the membership.

Thus the primary objectives of the redevelopment are:

- Creation of an all weather safe harbour facility for members (and refuge of other boating users);
- Provide a facility that will cater for the demands of club members for the next 50 years.
- Redevelopment to be self funded from the existing membership and to not put at risk the ongoing financial stability of the club.
- Provide for on-site storage of members vessels (120 marina wetberths & 78 dryberths);
- Provide a marina facility designed and operated for environmental best practise (ie Cleaner Marinas - EPA guidelines for protecting Victoria's marinas) to minimise impact of boating on Port Phillip Bay and the local coastal area.
- Reduce the impact on traffic and congestion on Beach Road (both car / bicycle users);
- Reduce the impact on surrounding neighbours by removing the current situation of members parking cars and trailers in surrounding streets during busy periods of use;
- Improve public access to the foreshore area. (In fact the plan is to increase public access and amenity through the reopening of the Keefers Cove path, providing access to the breakwater, and public boardwalk and kiosk);
- Eliminate the need for regular (approximately every three years) maintenance dredging to the existing ramps.
- To have minimal impact on the physical and visual landscape (ie obscured from vision from Beach Road).
- Recycling of stormwater as well as a marine toilet "pump-out" facility.
- To remain classified as a "Local facility" under the Central Coastal Board (CCB) Boating Cap. i.e. not to become a boat maintenance facility.

Background/rationale of project (describe the context / basis for the proposal, eg. for siting):

A brief history / background for the project is as follows;

- BMYS was established 1959
- BYMS currently has a total membership of 700 of which 602 own boats.
- The demographic profile of existing membership is:
 - Average age 48 years
 - Average length of membership 20+ years
 - 56% residing in Beaumaris
 - 62% residing in Bayside City Council
 - 13% residing in City of Kingston
- Existing club facilities are made up of:
 - two storey club house and function facility;
 - 40no. (approx) car parking;
 - 60no. (approx) car & trailer parking;
 - Total of Four lanes of boat launching ramps (unprotected);
 - Boat wash down facilities (currently not “EPA - Cleaner Marinas” best practice);
 - Fish cleaning facilities;
 - Outdoor members BBQ area and lawn; and
 - 62m Concrete jetty (publically accessible at all times).
- It has been identified that the current facilities of the club do not adequately service the needs of its membership. Over the years the profile of the typical member’s boat has increased from a 4.3 metre open powerboat used primarily for recreational fishing (easily trailerable and launchable on existing ramps) to larger 6 – 9 metre (plus) powerboats and cruisers used for both fishing, cruising and other recreational activities including interclub log trials.
- Additionally the usage profile of the club has changed from predominately fishing activities (smaller number of movements i.e. launch & retrievals) to an increased, wider and more varied pattern of usage by members throughout the week and all hours of the day, including an increase in organized club and inter-club events and activities.
- The existing function facilities are stretched to satisfy demand (weddings, parties, dinners, etc).
- The shortfall of existing facilities (specifically car & trailer parking) has resulted in overflow car and trailer parking in surrounding neighbourhood streets and additional traffic and congestion on Beach Road. This additional activity on and off Beach Road is of great concern to the club as the likelihood of serious accidents is significantly increased.
- In 2007 BMYS commissioned GHD to undertake preliminary Master Planning (v1) for a new proposed development to substantially increase the current facilities and featuring a new floating marina (and breakwater). Initial Master Planning was undertaken without regard to usage demand, financial viability or environment issues surrounding a significant increase in land reclamation.
- In 2007, LeisureCorp engaged to analyse and model the financial viability of a proposed redevelopment.
- In 2008, a revised Master Plan (version 2) and financial model approved by a vote of membership (75.4% approval) to proceed to Town Planning Permit application for the “BMYS Safe Harbour Project” (BMYS – SHP).
- September 2008, BMYS – Safe Harbour Project – Planning Committee established, consisting of representatives from; Department of Sustainability & Environment, Bayside City Council, BMYS and LeisureCorp.

- Six month timetable established to further develop design, consult with stakeholders, undertake preliminary site, technical and environmental investigations and reports, and submit Planning Permit application.

Main components of the project (*nature, siting & approx. dimensions; attach A4/A3 plan(s) of site layout if available*):

The main components of the project are identified in **Appendix B** being: drawing 2815-SK7 preliminary Master Plan and summarised below:

- An increase in the existing site area (currently under lease managed by DSE) from 12,000m² to 15,740m². Comprising an increase of approximately 3,060m² in seabed reclamation (landfill), and 680m² of piled boardwalk decking over the existing seabed and fossil nodules located at the western end of the site. Refer to **Appendix C**, the existing "Crown Plan of Allotment" marked up to identify the addition areas of site reclamation.
- Rock breakwaters with public access to create an all weather safe harbour.
- Extension of the outfall drain within the breakwater to deep water and inclusion of an interceptor pit.
- Waterfront boardwalk on the south west boundary with public access and kiosk.
- 120 floating marina berths.
- Three lane fully protected boat ramp.
- 78 berth "dry stack" facility launching dock and "lay by" berths.
- Fuel and service wharf including toilet holding tank pump out facility (currently the club does not have this facility).
- Rationalisation of car and trailer parking and circulation space, with an increase in the number of trailer parking to 78 car/trailers and car parking spaces to 90.
- New members club house including function facility.

Given that the design is currently at a Master Plan / Schematic Design level, much of the detail of the design is yet to be resolved and will be done upon a successful response to this EES Referral. Assuming a positive response the Club will then proceed with confidence to a Planning Permit Submission with the support of both the Bayside City Council (BCC) and the Public Land Managers being the Department of Sustainability and Environment (DSE).

Ancillary components of the project (*eg. upgraded access roads, new high-pressure gas pipeline; off-site resource processing*):

A collaborative pre-planning process has been undertaken involving both the BCC and DSE. During this process the club has taken on the suggestions of both BCC and DSE into the current design. This includes the incorporation of ancillary aspects to the project including:

- Greater and improved public access to the foreshore through allowing public pedestrian access to over 250 metres of rock wall marina for fishing and other activities. Additionally public will have access to the boardwalk area in front of the club house and a club run kiosk for the public.
- Relocation of the existing stormwater drain outflow into the rock wall marina design to ensure that stormwater outflow is well off shore and providing for the appropriate interceptor pit collection, etc.
- Re-establishment of the beach at the western boundary of the site (Keefers Cove beach).

In addition to works included within the BMYS project, BCC have indicated that they are investigating the following projects in the immediate vicinity and/or connecting directly onto the new BMYS site. These works are separate to this proposal may proceed according to timetables established by BCC:

- Possible reopening of the Keefers Path. This existing (closed) path may be reinstated to provide public access to the Keefers Cove area and access onto the western part of

the BMYS site

- Possible BCC works to establish the last section of the Bayside Bike Path running along the top of the cliffs and crossing the entry to the BMYS site. Note the location of the path either along the cliff tops or in the existing each Road reserve is yet to be determined.
- Possible improvement to congestion on Beach Road through the establishment of traffic lights at the existing intersection of Beach Road and the entrance to the site.

None of the above three possible ancillary projects (to be undertaken by others) are essential to the proposed projects feasibility nor long term operation, however are supported by BMYS to improve the general amenity and safety of the area.

Key construction activities:

The proposed redevelopment primarily consists of the following activities:

- Reclamation of 3,750m² (less the 400m² of existing rock groyne being removed) of sea bed through landfill and the construction of 680m² of piled boardwalk to increase the site area from 12,000m² to 15,740m²
- Construction of new modern three lane boat launching ramps and associated car, trailer parking, circulation areas and layup berths.
- Construction of a new rock wall breakwater for the protection of the launching ramps and a new 120 berth floating marina. The quantity of rock in these elements is approximately 130,000m³. Approximately 5,500 truck deliveries are required to supply this material. It is envisaged that trucks will arrive every 10 minutes for 10 hours per day for about 5 months. A comprehensive traffic Management Plan will be required to control access from Beach Road
- Construction of a three level 78 berth dry stack berthing facility and launching pond (by forklift)
- Construction of a new two level club house facility.
- No works are proposed to occur to the access road (outside of DSE lease).

Key operational activities:

The ongoing operation of the BMYS will remain unchanged in that it was established over 50 years ago to service the boating (primarily launching and retrieving) needs of its members and this primary activity has and will remained unchanged. The proposed marina, is a shallow berth which restricts usage to recreational power boats, not larger vessels and yachts.

It is not BMYS' objective to increase membership from the current level of 700, but the project is to meet their current and future requirements. Currently the club is staffed by three permanent employees plus casuals for club and community functions.

The ongoing operation and staffing of the club will be increased to accommodate the growth in the current operations but also to include functions not previously undertaken including the storage of boats on site, management of a safe harbour, the launching and retrieval of boats from the drystack facility, and staffing of a public kiosk.

Existing operational activities are:

- Boat launching and retrieval.
- Boat wash down and cleaning.
- Fish cleaning.
- Clubhouse facility (licensed) for club functions and activities.
- Clubhouse facilities (licensed) for public hire for events, weddings and functions.
- Public recreational activities (ie use and access to foreshore and fishing from pier, etc).

Key decommissioning activities (if applicable):

NA

Is the project an element or stage in a larger project?

No Yes

No, it is currently proposed that this project is completed as a single stage development and is financially possible only as a single stage.

Is the project related to any other past, current or mooted proposals in the region?

No Yes

No, the club is unaware from discussions with DSE, Parks Victoria and BCC of any other proposals in the region.

The only other projects that the club is aware of is the possible installation of traffic lights near the entrance to the site as well as the completion of the Bayside Bike Path as previously identified. (both by BCC)

Project alternatives

Brief description of key alternatives considered to date (eg. locational, scale or design alternatives. If relevant, attach A4/A3 plans):

BMYS has undertaken a long, intensive and consultative pre-planning process for this project including both DSE (as the public land managers) and the Bayside City Council (BCC) in the Planning Committee.

In 2007 BYMS commissioned GHD to undertake preliminary Master Planning (v1) (**Appendix E**) for a new proposed development to substantially increase the current facilities, to feature a new floating marina (and breakwater). The initial Master Planning was undertaken with little regard to usage demand, financial viability or environment issues surrounding a significant increase in land reclamation.

Following the initial Master Plan, at the request of Parks Victoria as a part of the Bays and Visions - Master Plan for Port Phillip, LeisureCorp was engaged to review the existing GHD plan and model the financial viability of a proposed redevelopment. In 2008, a revised Master Plan (v2) (**Appendix E**) and financial model approved by a vote of membership (75.4% approval) to proceed to Town Planning Permit application for the "BMYS Safe Harbour Project" (BMYS – SHP).

This membership approved plan has since undergone rigorous review by the Planning Committee (BMYS / DSE / BCC). The design has been further rationalized taking into account environmental concerns and DSE directions outlined in their letter dated 11 November 2008.

Throughout each evolution of the plan the seabed reclamation has been reduced as well as the length of foreshore proposed to be used. Additionally items including increased public access and use of the site have been incorporated into the design with public access to the breakwater for fishing activities, public access to boardwalk area in front of the club house and the inclusion of a public kiosk.

Additionally the construction methodology of the project has been reviewed to minimise impact on sensitive areas of the site which have been identified in the "Marine Ecology and Fossil Bed Assessment" report (**Appendix F**) commissioned by the club. This includes the area at the western (Keefers Cove) end of the site, which is proposed to be piled and suspended above the seabed and fossil nodule bed identified in this area. Additionally the construction of the seawall for the first 20 meters from the existing low water mark has been changed from rock wall covering approximately 80 m² of fossil nodule to a sheet pile breakwater wall covering 10m²

The current design is reduced to a level to minimize impact, but still remain functional and financially viable for the club to proceed.

In summary the design has evolved as follows:

	<u>MP 0</u> <u>(K009)</u>	<u>MP v1</u> <u>(K002)</u>	<u>MP v2</u> <u>(K004)</u>	<u>MP v 3</u> <u>(SK4)</u>	<u>MP current</u> <u>(SK7)</u>
Site area	38,000m ²	29,990m ²	17,750m ²	16,200m ²	15,740m ²
Foreshore length	635m	395m	310m	310m	310m
Reclaimed seabed	26,000m ²	17,990m ²	5,070m ³	3,810m ²	3,060m ²
Piled over seabed	0	0	680	680	680m ²
Marina berths	200	112	112	120	120
Drystack berths	0	108	72	78	78
Car & trailer parks	70	104	87	78	78
Car Parks	240	80	80	90	90

Brief description of key alternatives to be further investigated (if known):

Further design and expenditure on consultants has been suspended until the successful resolution of this EES referral. Once this milestone is achieved Richard Mabin and Associates (Architects) will lead the other design consultants and the club through the development of the current Master Plan into Schematic Design in preparation for submitting for Planning Permit Approval.

During this period and continuing beyond the Planning Permit the design will be further resolved so as to minimise impact on the environment and provide for the future requirements of the club.

5. Proposed exclusions

Statement of reasons for the proposed exclusion of any ancillary activities or further project stages from the scope of the project for assessment:

Given the restrictions of the site (access, location, area, environment, etc) it is envisaged that the proposed development will simply fully utilise the potential of the site and satisfy the club members' demands for the foreseeable future.

Under the existing Central Coastal Board – Boating CAP, BMYS is designated as a “Local Boating Facility”, and the club does not seek to change or move beyond this classification. In remaining as a Local Boating Facility the club does not wish to expand beyond the activities of a Local Boating Facility by way of providing boat maintenance facilities, nor “District” or “Regional” facilities like Sandringham Yacht Club, etc.

Future, further development of the adjoining foreshore area to the west (Keepers Cove) remains a possibility for DSE / BCC, once the improvements to this area are realised through this project. It has been discussed with BCC that they would like to reopen the Keepers Cove path to allow public access again to this foreshore area.

The project specifically **excludes** any works to the cliffs and foreshore area outside of the reclaimed seabed which makes up the existing BMYS site.

6. Project implementation

Implementing organisation (ultimately responsible for project, ie. not contractor):

Beaumaris Motor Yacht Squadron LTD (a company limited by guarantee).

Implementation timeframe:

Project is planned to proceed based on the successful outcome of the EES Referral directly into Schematic Design and Town Planning Application in 2009.

Assuming that Planning Approvals are successful it is hoped to be in a position to tender the construction prior to the end of 2009 with construction finished prior to the end of 2010.

Proposed staging (if applicable):

The project currently not envisaged to be staged, as financial viability of the project is reliant on completion of all the berths (wet and dry) to fund the reclamation and clubhouse works.

7. Description of proposed site or area of investigation

Has a preferred site for the project been selected?

No Yes If no, please describe area for investigation.

If yes, please describe the preferred site in the next items (if practicable).

General description of preferred site, (including aspects such as topography/landform, soil types/degradation, drainage/ waterways, native/exotic vegetation cover, physical features, built structures, road frontages; attach ground-level photographs of site, as well as A4/A3 aerial/satellite image(s) and/or map(s) of site & surrounds, showing project footprint):

Refer to Section 2 of this EES Referral for details on location and description of the site.

The entire BMYS site is located on reclaimed seabed surrounded by a rock sea-wall and predominately consists of both asphalt and gravel car and trailer parking and circulation space, two separate boat launching ramps, and a two storey licensed club and function rooms and some associated low level landscaping. The club facilities also comprise of a 75m long public accessible concrete jetty / pier.

Access to the site is via an access road directly from Beach Road, which is not under the current lease of the site with DSE.

The site being made entirely from landfill has no natural vegetation, and the proposed project does not physically impact on the cliffs or other areas of the foreshore reserve.

Refer to **Appendix D** for photographs of the site and surrounding area.

Key features of the site and surrounding areas are:

Onshore Environment

- Reclaimed seabed (landfill), no vegetation – DSE leased site.
- Cliffs – weathered Black Rock sandstone cliffs, containing fossil remains
- Foreshore reserve between the top of the cliffs and Beach Road – native and introduced vegetation as detailed in section 12, no known migratory or rare species documented.
- Keefers Cove Beach, - publically inaccessible beach and stormwater outlet

Marina environment (detailed in **Appendix F**):

- Rock revetment
- Piled structures
- Seagrass
- Subtidal Rocky Reef
- Soft sediments
- Nodule bed
- Beaumaris Aquiculture Fisheries Reserve
- Ricketts Point Marine Sanctuary

Site area (if known): 1.2 hectares approximately (existing), 1.57 hectares (proposed)

Route length (for linear infrastructure) 0 (km) **and width** NA (m)

Not applicable as existing site is fully serviced for the proposed project.

Current land use and development:

The current site is under an existing 21 year lease managed by DSE, with a further 9 years until renegotiation. DSE have advised that upon a successful Planning Permit being received

it will enter into negotiations for a new long term lease for the new increased lease area.

The existing site is used for recreational boating purposes for the launching and retrieving of trailerable power boats of members of BMYS. Currently the club has a total of 700 members of which there are approximately 600 registered boats. It has been estimated that annually the club launched and retrieved just over 10,000 boats in 2005/06 which has increased to 16,090 in 2007/08 and can launch / retrieve over 200 boats on peak days, with current usage being restricted by the current facilities and having a significant impact on adjacent roads and neighbouring streets for parking

The site also includes areas for car and trailer parking, as well as a fish cleaning area, and a boat / trailer wash-down area with pressure hoses and associated equipment accessible to members.

Public access to the site is limited to pedestrian traffic only, and is well utilised by local residents. Additionally there is unrestricted public access to the club owned 75m existing concrete jetty / pier extending from the centre of the site.

The existing club house facility was constructed in 1964 and underwent its latest refurbishment in 2003. The club is licensed and consists of a "wet bar" and BBQ facilities on the ground floor and 160 - 180 seat club / function space, bar, kitchen and administration office on the 1st floor.

It is proposed that the future use of the club is unchanged; however it will be better able to cater to the requirements of members and the public for the foreseeable future of the club.

Description of local setting (eg. adjoining land uses, road access, infrastructure, proximity to residences & urban centres):

The site is located on reclaimed seabed at the base of approximately 12 meter high cliffs and accessed off Beach Road. The existing club facilities are effectively hidden from view of traffic on Beach Road and Beach Road residents by the foreshore reserve and the height of the cliffs. The distance to the closest residence to the club house facility is 70m and will remain unchanged.

The closest other foreshore developments to BMYS are the Beaumaris Sea Scouts 700m to the south west, and the Mentone LSC 1.3km east. Immediately adjacent to the site was Keefers Boat Hire and Mussel Farm, pier and associated buildings, which were destroyed in a fire in 1984 and not reinstated. The public path to this area was subsequently closed, however this proposed to be reopened by BCC as a part of this project.

Planning context (eg. strategic planning, zoning & overlays, management plans):

The site comes under the following planning context;

Planning Zone:

Public Park and recreation Zone (PPRZ)

Planning Overlays:

Design and Development Overlay – schedule 1 (DDO1)

Environmental Significance Overlay – Schedule 1 (ESO1)

Erosion Management Overlay Schedule (EMO)

Vegetation Protection Overlay – schedule (VPO1)

For further details refer to the DPCD Property Planning Report (**Appendix H**).

Local government area(s):

Bayside

8. Existing environment

Overview of key environmental assets/sensitivities in project area and vicinity (cf. general description of project site/study area under section 7):

The main environmental assets and sensitivities in the onshore and offshore areas in the close vicinity of the site include the following:

8.1 Onshore Environment (detailed in Appendix L, N)

8.1.1 Foreshore reserve and cliffs.

The coastal cliffs and foreshore extending north-east from the Beaumaris Motor Yacht Squadron (BMYS) is an area of geological and geomorphological significance in Port Phillip Bay (Rosengren 1988, Bird 1993).

8.1.1a Geology

Research reports on the geology of the Beaumaris coastal cliffs are scattered throughout the scientific literature dating from Hall & Pritchard (1897) to the early 1990s. Some of these studies are briefly summarized in a report to the Museum of Victoria by McDonald (1990).

The Beaumaris cliffs are geologically unique in Port Phillip (Gill 1957). They comprise sands and sandstones ranging in age from the Miocene to Quaternary. An asymmetrical shallow pitching anticline with axis near the site of the former Keefers Boatshed forms coastal cliffs 15 m high. Near the junction of Charman and Beach Roads the anticline dips more steeply seawards at 20-25° as a monocline. The monocline is seen as an ironstone reef an outcrop following the coastline, approximately 75 m offshore.

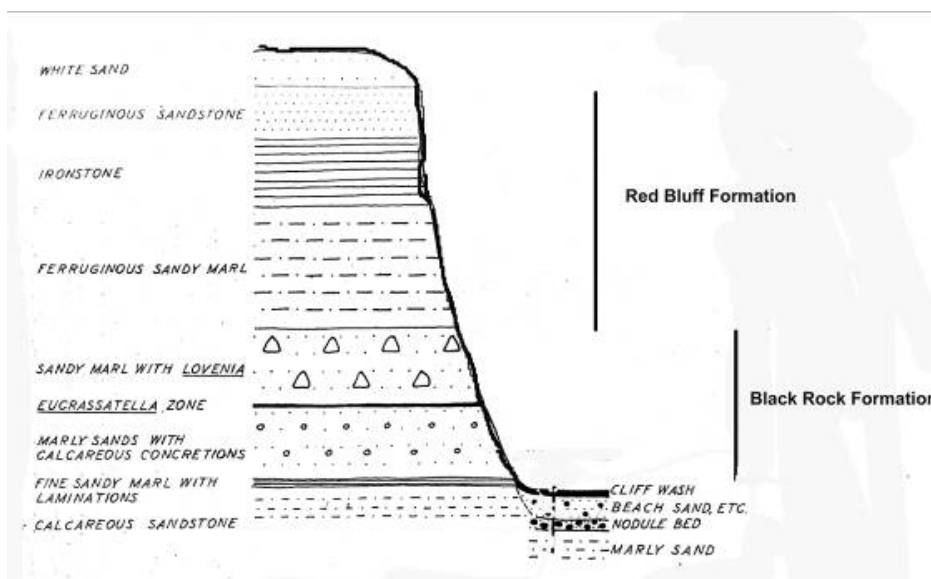


Figure 1 Section of sea cliff at Beaumaris near old Keefers Boatshed showing formations and fossiliferous nodule bed (after Gill 1957)

Overlying the Balcombian clays are rocks of Upper Miocene-Pliocene Cheltenhamian age. These comprise two thick formations – the underlying marine sandstones of the Black Rock Formation and the overlying fluviatile sandstones of the Red Bluff Formation. The type section of the Black Rock Formation is the cliff behind the site of the former Keefers boatshed immediately west of the BMYS fence (Gill 1957). The sandstone contains molluscan fossils and many fossils of the irregular echinoid *Lovenia woodsii*.

A disconformity (period of erosion) separates the top of the Black Rock Formation from the base of the overlying Red Bluff Formation. The Red Bluff Formation consists predominantly of fluviatile to lagoonal consolidated sands containing fossil leaves, wood and other terrestrial material (Gill 1957). The Red Bluff sandstone is capped at the cliff top by a 2 m thick layer of white aeolian (wind blown) sands of Quaternary age, approximately 5000 years old (Gill 1957). According to Pritchard (1976) the sands also

contain fragmentary recent molluscan shells and aboriginal middens.

The basement rock at water level along the cliffs comprises a thin layer of marine clays of Miocene Balcombian age overlain by a fossiliferous nodule bed. The clays contain a rich fossil molluscan fauna and the nodule bed contains reworked ferruginised and phosphatized fossils of shallow water origin (Gill 1957). Fossils in the nodule bed include at least 15 species of sharks' teeth (Kemp 1991) and fish bones many of which are not significantly different from species present in the bay today (Long 1991). The bed also contains fossil whale bones Pritchard (1976), seal bones (Fordyce 1991), some marsupial fossils Gill (1957), and penguin bones (Rich 1991).

8.1.1b Geomorphology

Marsden (1969) gave a detailed account engineering geology and geomorphology of the Mentone-Beaumaris coastline and made recommendations for control of cliff erosion to the Sandringham City Council. Undercutting of the Beaumaris cliffs and collapsed blocks were then a feature of the coastline, the blocks dissipating wave energy and contributing to slowing of erosion. Slippage and channelling in the soft Red Bluff Sandstone after rain, exacerbated by human activity was occurring along the cliffs. It was recommended fencing and replanting vegetation would help control erosion. Revegetation and fencing of the cliffs has now successfully reversed erosion.

8.1.1c Fauna

Some characteristic birds of the area are the little penguin (*EUDYPTULA MINOR*), little pied cormorant (*PHALACROCORAX MELANOLEUCOS*), great cormorant (*P. CARBO*), white-faced heron (*ERGRETTA NOVAEHOLLANDIAE*), nankeen kestrel (*FALCO CENCHROIDES*), Pacific gull (*LARUS PACIFICUS*), white-browed scrubwren (*SERICORNIS FRONTALIS*), brown thornbill (*ACANTHIZA PUSILA*), red wattlebird (*A. CHRYSOPTERA*) and silvereye (*ZOSTEROPS LATERALIS*).

8.1.1d Flora

The vegetation above the cliffs is dominated by a coastal scrub of coast tea-tree (*LEPTOSPERMUM LAEVIGATUM*), coast wattle (*ACACIA SOPHORAE*), minor bush (*CORPOSMA REPENS*), coast bear-heath (*LEUCOPOGON PARVIFLORUS*), common boobialla (*MYOPORUM INSULARE*), drooping sheoke (*ALLOCASUARINA VERTICILLATA*), black wattle (*A. MEARNsii*), and spike wattle (*A. OXYCEDRUS*). There are also limited strands of coast manna gum (*EUCALYPTUS PRYORIANA*). Understorey species that may also occur further down on the cliffs include hairy Spinifex (*SPINIFEX SERICEUS*) and knobby club-sedge (*ISOLEPIS NODOSA*).

8.1.1e Fossils

The fossiliferous nodule bed at the base of the cliffs is an area of particular geological significance. With the exception of the irregular echinoid *Lovenia woodsii* which weathers out of the matrix most of the embedded fossils are invisible on the surface of the nodules but can be seen when the nodules are broken..

From the survey, the subtidal area of the nodule bed along the shoreline (from the vicinity of Keefers eastwards along the revetment) is estimated to be between 0.1 to 0.2 ha. No assessment was made of how far the bed may extend seaward below the sand, but it would not extend further than the shallow offshore reef.

Reclamation in 1969 for the BMYS probably covered an area of approximately 1.4 ha of the nodule bed beneath the trailer park thus reducing the original exposure area by approximately ninety percent.

8.1.2 Reclaimed seabed (landfill) – DSE leased site.

The current BMYS site under lease from DSE entirely consists of reclaimed seabed bounded on one side by the foreshore cliffs and on the other by Port Philip Bay and rock revetment. This site was reclaimed from the sea starting in 1958, with the last major works being undertaken in the 1990's. This reclaimed site is made up of fill and building rubble and topped with gravel and asphalt carpark and minimal soft landscaping. There is no vegetation of note or known fauna.

8.2 Marine environment (detailed in appendix F):

8.2.1 Rock revetment

The BMYS site is bounded on the seaward perimeter by approximately 240m of rock revetment. The depth of water along the foot of the revetment is approximately 1.5 m. The revetment consists of dumped basalt boulders mixed with loose bricks and building rubble. There are two double lane boat ramps on the revetment – one about halfway along, the other at the eastern end of the BMYS facilities.

The revetment provides habitat for an algal and invertebrate community and small fish. Visually dominant species were a brown alga *Cystophora* sp., the green algae *Ulva lactuca* and *Codium fragile*. Invertebrates include sea urchins *Heliocidaris erythrogramma* the seastars *Mediastria calcar*, and *Coscinasterias muricata*. Larger gastropod species observed amongst the rocks were the abalone, *Haliotis rubra* and the turbo shell, *Turbo undulatus*. The calcareous tube worm *Galeolaria caespitosa* was abundant on rocky outcrops. Fish included numerous sweep, *Scorpius aequipinnus*, toadies, *Tetractenos glaber* and shoals of unidentified fry. Less conspicuous species that were present amongst the rocks were small gastropods, limpets and mussels.

All species noted are common inhabitants of shallow water natural and artificial reef in the bay.

8.2.2 Piled structures

A public jetty ~75 m long was reconstructed to its current form by BMYS in 1978, for use of pedestrians, fishers and boat embarkation. The jetty foots the revetment and the decking is supported by square section concrete piles.

The pilings below mid tide level support a prolific algal and invertebrate community. The assemblage includes a suite of species similar to those present on other shallow water jetties in Port Phillip Bay. The visually dominant species are briefly described below, a fuller description given in Appendix F including underwater images photographed during the survey. The visually dominant species listed in the appendices and briefly described below represent only a fraction of the biotic population inhabiting the piles.

Visually dominant algae include the common brown kelp *Ecklonia radiata*, several green algal species e.g. *Ulva* sp. and *Caulerpa brownii* and unidentified small red turfing algal species.

Invertebrates include the encrusting tube worm *Galeolaria caespitosa*, at least seven species of crustose and erect sponges (including *Tethya* sp.) encrusting bryozoans red *Mucropetraliella elleri* and orange *Celleporaria* sp. Hydroids included a cosmopolitan species, *Obelia dichotoma* and the endemic *Sertularia tenuis*; ascidians included *Pyura stolonifera* a species ubiquitous around the bay; molluscs included the commercially important blacklip abalone *Haliotis rubra*. A few individuals of the introduced tube worm *Sabella spallanzanii* were noted on the main jetty and on the timber piles at the small boat ramp; this species is widespread throughout the bay. Representative species are shown above in **Error! Reference source not found.**

Fish noted included juvenile sweep, *Scorpius aequipinnus*, and toadies *Tetractenos glaber*. Both are common shallow water bay species.

8.2.3 Seagrass

Patches of the seagrass *Heterozostera nigricaulis* are widespread across the area, the patches being separated by expanses of clean slightly ripple-marked sand. Seagrass plants are sparsely distributed in the patches and are young with leaves only to 8 cm long. The rhizomes buried in the sand are healthy and actively growing at the time of the survey. No seagrass detritus was found, indicating colonisation of the bed may be only seasonal, the plants regressing under unfavourable conditions. To investigate the depth distribution of seagrass, two additional sites were sampled further offshore. Site 20 at approximately 5.6 m depth had a medium cover of seagrass, whereas Site 21 in 6.5 m depth water was devoid of seagrass.

Heterozostera nigricaulis is a locally abundant subtidal seagrass in Port Phillip Bay, growing in shallow coastal habitat under favourable conditions of incident light and shelter from wave motion.

The seagrass leaves are lightly epiphytised by small species of filamentous red algae and newly settled colonies of the common seasonal bivalve *Electroma georgiana*.

8.2.4 Subtidal Rocky Reef

A line of reef passes almost parallel to the coast at approximately 70 m from shore at the east

end of the BMYS area. It is much closer to shore at the western end of the site. The reef (depth 1.5 m at time of dive) is the surface expression of the Beaumaris monocline rising to near water level east and west of the BMYS property. The reef comprises hard ferruginous sandstone dissected into ledges about 0.5 m high with deep undercuts. Loose platy boulders eroded from the reef lie in hollows between the ledges.

The most extensive section of reef surveyed was at Site 5. The reef here supports an abundant flora of brown algae, including visually dominant tall plants of *Caulocystis uvifera*, *Cystophora* sp. and *Cystophora moniliformis*, the latter often heavily colonized by small brown species of epiphytic algae. Other, smaller brown algae include *Dictyopteris* sp., small curled *Padina* sp. and bluish *Dictyota* sp. Other species included abundant unidentified filamentous reds, these being the source of much of the offshore drifted material. Plants of the red alga *Heterosiphonia muelleri* were noted: Port Phillip Bay is the type locality for this species.

A full species list of algae was not prepared. Interestingly, the algal cover on the reef near Site 5 diminishes with proximity to shore until the seabed consists of silt covered boulders with very sparse and isolated patches of macroalgae.

The invertebrate fauna of the reef is rich and diverse, and is similar in species composition to that in similar habitats in the bay. The fauna living under the platy boulders is particularly rich, the dominants including the sponge *Tethya* sp. and several other unidentified species of sponge, the chiton *Ischnochiton variegatus*, juvenile abalone *Haliotis rubra*, the anemone *Anthothoe albocincta*, the sponge crab *Stimodromia lateralis* and juvenile echinoids *Heliocidaris erythrogramma*. Fish sheltering under and near the overhangs included the hulafish *Trachinops caudimaculatus*, the weed whiting *Neoodax balteatus*, the dragonet of the family *Callionymidae* and pygmy leatherjackets *Brachaluteres jacksonianus*.

The shallow reef has a particularly rich biota in comparison with assemblages seen along the eastern coast of the bay. The high diversity and abundance is probably due to natural factors of shelter from northerly weather and, being at the base of steep cliffs, being comparatively inaccessible to the public.

The report (**Appendix F**) identifies the presence of the following dominant vegetation, flora and fauna:

8.2.5 Soft sediments

The inshore environment consists of fine to medium mobile sand. No epibenthic species were noted at the sites inspected. Infauna is also likely to be depauperate due to the mobile nature of the sand.

The offshore environment consists of open sandy bed comprising uniformly medium-grained sands with occasional patches of small scale ripples indicating mild wave motion. The sandy substrate is very clean with no organic inclusions when inspected to a depth of 5 cm.

The bed is mildly bioturbated by infaunal activity and supports a sparse cover of epibenthic species. Common species include the stalked ascidian, *Sycozoa pedunculata*, the echiurid worm, *Ikeda* sp. and the large tubicolous predatory polychaete *Diopatra aciculata*. The seagrass *Heterozostera nigricaulis* was also present at both sites, although cover was sparse and very patchy.

The very sparse distribution of the invertebrate epifauna is due to general absence of rock or shell fragments for attachment. The few epibenthic species were the large solitary ascidian, *Pyura stolonifera*, a sand-dwelling anemone *Epiactis* sp., the large eleven arm seastar *Coscinasterias muricata* and the worm *Myxicola infundibulum*.

The infauna was not sampled in this preliminary survey. Brief examination of the bed sediments indicated however that infaunal species and abundance would be similar to that in shallow sandy habitat elsewhere along the eastern coast of the bay.

The report (**Appendix F**) identifies the presence of the following dominant vegetation, flora and fauna:

Pyura stolonifera- A large solitary or colonial ascidian very common throughout the bay, often found attached to fragmental shell in sandy bed. The large leathery individuals provide micro-reef habitat for attachment of small algae and invertebrates.

Epiactis sp.- A moderately common anemone in sheltered sandy bed throughout the bay. Although large and large showy the species has not been scientifically identified to species.

Coscinasterias muricata - This large predatory eleven-armed seastar is very abundant throughout the bay, ranging over sandy bed, reef and man-made structures. It feeds upon bivalve molluscs, especially mussels.

Ikeda sp. - An undescribed species of infaunal echiurid (unsegmented worm); lives deeply buried in the bed, extending a feeding proboscis over the sand. Moderately common in quiet, fine sandy habitat in the bay.

8.2.6 Nodule bed

The first part of the nodule bed extends intertidally along the short length of shoreline remaining between the site of the former Keefers boat shed and the western edge of the revetment. The bed at this location is littered with debris including timber, bricks and pipes from the demolished boat shed. The bed in this location extends approximately 10 m seawards to about 1 m depth before passing into sandy bottom. It also extends approximately 15 – 20 m eastwards past the jetty and for a short distance seawards along the revetment. The total underwater exposure of the nodule bed is estimated as approximately 1,000 m².

The bed is covered by a thin veneer of silt but is easily traceable from the distinctively shaped nodules. The bed is also distinctive from the paucity of marine growth on the nodules, this probably being due to the small size and tendency of the nodules to tumble with water movement. Small pockets of seagrass also occur amongst the rubble but these are limited in extent due to the absence of suitable sandy bed.

8.2.7 Algae

Windrow drifts of a filamentous alga were present on some barren patches and among the seagrasses. The species of alga was not determined. Such drifts are common throughout Port Phillip Bay over summer months. The alga was abundant on adjacent shallow inshore reef and when detached, drifts seawards along the bottom.

Other algae included small plants of the green alga *Codium fragile* growing on old shell in the bed. The alga is provisionally identified as *C. fragile*. It is possible however that some plants may be the introduced *Codium fragile* ssp. *tomentosoides* from which it can be separated only by detailed taxonomic examination.

8.2.8 Fish

Most of the fish species observed were over the sections of inshore reef. These included the southern hulafish, *Trachinops caudimaculatus*, pygmy leatherjacket, *Brachaluteres jacksonianus*, weed whiting *Neoodax balteatus* and dusky morwong, *Dactylophora nigricans*. Other common species noted along the revetments were juvenile sweep, *Scorpius aequipinnus*, and the toadfish *Tetractenos glaber*.

8.2.9 Introduced Marine Pests

The only introduced species in the area was the European fan worm, *Sabella spallanzanii* which was present in small numbers on the piled structures at the jetty and the boat ramp.

8.2.10 Keefers Cove (Beach)

The seabed opposite the main stormwater drain to the west of the BMYS property was also examined. The drain opens onto a section of beach immediately west of the reclaimed area. The beach is in generally poor condition with much litter and debris scattered above high water mark and in the shallows. From the beach, the sand grades into a bed of rubble. With increasing distance from the drain, small patches of macroalgae and seagrass occur but are limited in area and cover. A small area of dead seagrass is most likely attributable to a pulse of freshwater from the drain.

8.2.11 Beaumaris Aquaculture Fisheries Reserve

The BAFR is 25 ha (approximately 0.5 km by 0.5 km) in total area, which comprises the former Beaumaris aquaculture harvesting area (see Figure 2) approximately 0.4 km offshore and an extension of 19 ha approximately 0.6 km offshore (Fisheries Victoria 2005).

Mussel aquaculture has been undertaken in the existing 3 ha lease since the 1980s, however the current production status of the lease is unknown. The BAFR in Beaumaris Bay is subject to daily tidal flushing that generates considerable mixing and exchange of water, however its proximity to the coast (and stormwater outlets) makes it vulnerable to contamination during

periods of rain.

The BAFR is located in close proximity to the Beaumaris Motor Yacht Squadron but is unlikely to be impacted by the proposed redevelopment. The greatest risk to BAFR operations will continue to be potential contamination from stormwater discharge.

8.2.12 Ricketts Point Marine Sanctuary

The Ricketts Point Marine Sanctuary covers an area of 115 hectares extends eastward from Quiet Corner to Table Rock Point for about 500 m offshore. The eastern boundary of the Sanctuary is approximately 600 m south west of the BMYS (Figure 2).

The Sanctuary contains a diversity of habitats which are similar to those further east in Beaumaris Bay. There is an extensive intertidal and subtidal sandstone reef incorporating variety of microhabitats. Of the total 115 ha of the Marine Sanctuary, 90 ha has been classified as reef, 10 ha as sediment, <1 ha is seagrass and 15 ha is described as undefined habitat (Parks Victoria 2005).



Figure 2 Eastern Section of Ricketts Point Marine Sanctuary

Construction and operation of the proposed redevelopment is unlikely to impact on the marine sanctuary. The greatest scope for impact is from possible indirect effects on coastal processes (and movement of sand) caused by the presence of the breakwater.

Assessment of coastal processes to date, indicate that net sediment movement is from west to east. The proposed redevelopment at BMYS is therefore unlikely to have an impact on the Sanctuary.

9. Land availability and control

Is the proposal on, or partly on, Crown land?

No Yes If yes, please provide details.

The site is Crown land which is currently leased to the club under a 21 year lease with 9 years approximately remaining, managed by DSE. The proposed project does not seek to further increase the lease boundaries either inland or beyond the existing foreshore footprint. All proposed increase in site area is by way on land reclamation and seabed lease to see from the existing site. Details of the lease are in **Appendix I**.

Current land tenure (provide plan, if practicable):

Refer to **Appendix H**.

Intended land tenure (*tenure over or access to project land*):

The club has held discussions with DSE who have directed the club to proceed with the current consultative design and planning process involving DSE. As Public Land Managers of this site, DSE approval is also required for the submission of a Planning Permit Application. Upon the successful resolution of the Planning Permit, a new lease will then be negotiated.

Other interests in affected land (*eg. easements, native title claims*):

Nil

10. Required approvals

State and Commonwealth approvals required for project components (*if known*):

Approvals are required from DSE as the Public Land Managers and normal Planning and Building Permit Process with BCC.

EPA approval is required for the fuel installation.

No other approvals are expected or known to the club.

Have any applications for approval been lodged?

No Yes If yes, please provide details.

No formal approvals have been sought from DSE or BCC, however both parties are included on the projects Pre-planning Committee and have been consulted thought-out the process, with their input, suggestions and requirements incorporated into the design as it has developed.

Approval agency consultation (*agencies with whom the proposal has been discussed*):

- Department of Planning and Community Development (DPCD);
- Department of Sustainability & Environment (DSE);
- Bayside City Council (BCC);
- BMYS members

Other agencies consulted:

- Parks Victoria (PV);
- Aboriginal Affairs Victoria (AAV);
- Dept. of Environment, Water, Heritage and the Arts (DEWHA).
- Marine Safety Victoria (MSV).
- Yachting Victoria (YV).
- Central Coastal Board (CCB).
- Australian Heritage Council (AHC).
- Heritage Victoria (HV).

PART 2 POTENTIAL ENVIRONMENTAL EFFECTS

11. Potentially significant environmental effects

Overview of potentially significant environmental effects (identify key potential effects and comment on their significance and likelihood, as well as key uncertainties):

11.1 Investigation into marine environment effects contained within and as a result of activities within the proposed BMYS site.

BMYS has engaged Geoff Atkins from Atkins Marine Engineering P/L (AME) and Dr Jan Watson and Harry Houridis from Marine Science & Ecology P/L (MSE) to undertake investigations and provide technical reports on Coastal Processes and Marine Ecology & Fossil Bed Assessment, respectively. Both of these reports are attached (**Appendix F and G**).

Both of these reports are supportive of the development and the design measures that have been incorporated to minimise any potential impact in both the Coastal Process, marine ecology and the existing fossil beds. Each of these reports in turn makes design recommendations to the club which have and will be incorporated into the future planning and final design of the redevelopment.

It is noted that these reports also highlight significant potentially **positive** environmental benefits that the redevelopment would provide. These can be summarised as follows:

1. Creation of a much needed safe harbour and refuse for all boating users.
2. The removal of the need for dredging that is currently undertaken each two to three years by the club, with the removal of approximately 1,000 m³ per annum.
3. "EPA Cleaner Marinas" facility for the reduction of waste from boating activities entering Port Phillip, including boat washing and fish cleaning areas.
4. Stabilisation of the fragile cliff system through reducing wave erosion at the base of the cliffs by the re-establishment of the beach at Keefers Cove.
5. Reduction in car and trailer traffic by members in launching and retrieving boats, thus associated reduction in fuel and associated pollution.
6. Rectification of the existing stormwater outlet at Keefers Cover Beach and relocation of this stormwater to be expelled in deeper water at the end of the breakwater.

By way of an overview the AME "Coastal Process Report" states;

"The proposed redevelopment will interrupt the relatively minor sediment movement of fine to medium sand along the coast to the north east. The proposed breakwater will prevent sand entering the harbour and basically eliminate the need for the current maintenance dredging. A beach will form south west of the breakwater and grow gradually over 20 to 30 years. This beach will have some recreational value but will also protect the cliffs from being undermined by wave attack."

In addition the MSE report finds;

11.1.1 Seabed reclamation:

"The proposed reclamation will result in the infilling of less than 4,000 m² of seabed. The seabed proposed for reclamation lies within the east-west extent of the current BMYS footprint and is directly adjacent to the existing reclaimed area and rock revetment. Reclamation at the BMYS site was last undertaken in 1969.

Most, if not all of the proposed reclamation will result in the permanent loss of sandy seabed. The nearshore environment proposed to be reclaimed also includes a section of the fossiliferous nodule bed. The present bed is only a remnant of its former area, much of the original bed now being buried beneath the BMYS property. To avoid burial of the section of nodule bed that lies at the western end of the proposed redevelopment, the seabed will be covered by a piled deck structure and not infilled or buried. This section is in the vicinity of the proposed public access area labelled on the Concept Plan as a public kiosk.

Overall, the nearshore environment adjacent to the existing rock revetment is highly modified and consists of mobile sands with few ecological values. Much of the area east of the existing jetty is also subject to ongoing maintenance dredging every three to four years.”

11.1.2 Fossil Beds:

“The nodule bed is of international geological significance and forms part of the Beaumaris Bay Fossil Site as defined by ES01 within the Bayside Planning Scheme (see, Appendix F). It is also on the Register of the National Estate, the area defined equivalent to that shown in the Planning Scheme which extends 250 m seaward of the foreshore. The coastal cliffs and foreshore northeast from the BMYS are also listed as sites of geological and geomorphological significance (Rosengren 1988).

The present bed is only a remnant of its former area, much of the original bed now being buried beneath the BMYS property. According to the plan for redevelopment, a section of nodule bed at the western end of the BMYS site lies within the proposed construction footprint; however burial of the nodule bed will be avoided by constructing:

- *a sheet pile wall to connect the foreshore and the rock breakwater, and*
- *a piled deck area for access by pedestrians.*

These design features will ensure that the proposed reclamation and construction of breakwater does not result in burial of the exposed section of nodule bed.”

11.1.3 Ricketts Point Marine Sanctuary

“Construction and operation of the proposed redevelopment is unlikely to impact on the marine sanctuary. The greatest scope for impact is from possible indirect effects on coastal processes (and movement of sand) caused by the presence of the breakwater.

Assessment of coastal processes to date, indicate that net sediment movement is from west to east. The proposed redevelopment at BMYS is therefore unlikely to have an impact on the Sanctuary.”

11.1.4 Beaumaris Aquaculture Fisheries Reserve (BAFR)

“The BAFR is located in close proximity to the Beaumaris Motor Yacht Squadron but is unlikely to be impacted by the proposed redevelopment. The greatest risk to BAFR operations will continue to be potential contamination from stormwater discharge.”

11.1.5 Species and Communities of Significance

“No unique or threatened marine species or communities, as defined or listed under the Victorian Flora and Fauna Guarantee Act 1988 or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 were found during the investigation.

*Marine animals listed under the EPBC Act which may conceivably visit northern Port Phillip are the Great White Shark (*Carcharodon carcharius*), and the Humpback Whale (*Megaptera novaeangliae*) both listed as vulnerable. There are no recent records of sightings of these species in the Bayside coastal area.”*

11.1.6 Mitigation and Management

“Any reclamation proposed should be limited to the eastern end of the site which is subject to ongoing deposition of sand and regular maintenance dredging.

No reclamation should be undertaken at the western end of the site, where the nodule bed is exposed. Use of decking instead of reclamation will avoid burial of the seabed and use of sheet piling over a twenty metre section of seabed will reduce the footprint from construction of the rock breakwater.”

Refer to **Appendix E** - MSE Report.

11.2 Investigation into the surrounding cliffs and foreshore reserve.

The proposed development does not physically impact or intrude on the surrounding onshore environment as all proposed increase in site area is to sea from the existing lease. The closest proposed building to the cliffs is the boat stacker facility which is located 2m from the base of these cliffs (inside the current DSE leased area). This new building will visually obscure these cliffs from the water, and provide a degree of

protection from wind / erosion from the prevailing south.

The club does not wish to extend to the east or west of the current lease boundaries.

In order to substantiate the impact(s) on the foreshore reserve and cliffs the club engaged Lanepiper to undertake investigations into the surrounding cliff structure and foreshore reserve (**Appendix L**). It is noted that no part of the proposed project is located or touches these areas but is bounded by them.

The findings of this report are summarised as follows;

“Based on the site inspections carried out, and the understanding of the supplied brief pertaining to the proposed BMYS redevelopment, the construction of the dry-stack structure, will not adversely impact the cliff face along the foreshore reserve as the structure will not be founded on or against the cliff faces, this is providing the development does not encroach onto the crown land. Furthermore there are no basements or excavations near the boundary or excavations near the boundary of the site at the toe of the cliffs.”

12. Native vegetation, flora and fauna

Native vegetation

Is any native vegetation likely to be cleared or otherwise affected by the project?

NYD No Yes If yes, answer the following questions and attach details.

- **Land:**

There is no existing natural vegetation on the site of the redevelopment as this entirely reclaimed land is extensively gravelled with hard paving for car and trailer parking. The project will not impact on the cliffs or other surrounding land in the foreshore reserve.

The club has undertaken investigations into the Ecology and Geomorphology of the surrounding cliffs and foreshore reserve. **Appendix L**, the Lanepiper (Geotechnical and Environmental Engineers) Report makes the following summary:

“Based on the site inspections carried out, and the understanding of the supplied brief pertaining to the proposed BMYS redevelopment, the construction of the dry-stack structure, will not adversely impact the cliff face along the foreshore reserve as the structure will not be founded on or against the cliff faces, this is providing the development does not encroach onto the crown land. Furthermore there are no basements or excavations near the boundary or excavations near the boundary of the site at the toe of the cliffs.”

Additionally in **Appendix N**, the Australian Heritage Database – Place Details sheet on the Beaumaris Bay Fossil Site (which is the foreshore area excluding the actual BMYS lease) identifies the following native vegetation, flora and fauna;

“The vegetation above the cliffs is dominated by a coastal scrub of coast tea-tree (LEPTOSPERMUM LAEVIGATUM), coast wattle (ACACIA SOPHORAE), minor bush (CORPOSMA REPENS), coast bear-heath (LEUCOPOGON PARVIFLORUS), common boobialla (MYOPORUM INSULARE), drooping sheoke (ALLOCASUARINA VERTICILLATA), black wattle (A.MEARNsii), and spike wattle (A.OXYCEDRUS). There are also limited strands of coast manna gum (EUCALYPTUS PRYORIANA). Understorey species that may also occur further down on the cliffs include hairy Spinifex (SPINIFEX SERICEUS) and knobby club-sedge (ISOLEPIS NODOSA).

Some characteristic birds of the area are the little penguin (EUDYPTULA MINOR), little pied cormorant (PHALACROCORAX MELANOLEUCOS), great cormorant (P.CARBO), white-faced heron (ERGRETta NOVAEHOLLANDIAE), nankeen kestrel (FALCO CENCHROIDES), Pacific gull (LARUS PACIFICUS), white-browed scrubwren (SERICORNIS FRONTALIS), brown thornbill (ACANTHIZA PUSILA), red wattlebird (A. CHRYSOPTERA) and silvereeye (ZOSTEROPS LATERALIS).”

- **Marine:**

As previously noted BMYS has engaged MSE to undertake a survey of the Marine Ecology. In this report they have identified the existence and make the following summary comment (**Appendix F**, section 6.4):

“No unique or threatened marine species or communities, as defined or listed under the Victorian Flora and Fauna Guarantee Act 1988 or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 were found during the investigation.

*Marine animals listed under the EPBC Act which may conceivably visit northern Port Phillip are the Great White Shark (*Carcharodon carcharius*), and the Humpback Whale (*Megaptera novaeangliae*) both listed as vulnerable. There are no recent records of sightings of these species in the Bayside coastal area.”*

In addition this report identifies the presence of the following dominant vegetation, flora and fauna:

Soft Bed Offshore

Pyura stolonifera- A large solitary or colonial ascidian very common throughout the bay, often found attached to fragmental shell in sandy bed. The large leathery individuals provide micro-reef habitat for attachment of small algae and invertebrates.

Epiactis sp.- A moderately common anemone in sheltered sandy bed throughout the bay. Although large and large showy the species has not been scientifically identified to species.

Coscinasterias muricata - This large predatory eleven-armed seastar is very abundant throughout the bay, ranging over sandy bed, reef and man-made structures. It feeds upon bivalve molluscs, especially mussels.

Ikeda sp.- An undescribed species of infaunal echiurid (unsegmented worm); lives deeply buried in the bed, extending a feeding proboscis over the sand. Moderately common in quiet, fine sandy habitat in the bay.

Reefy Substrate

Algae

Ecklonia radiata.- This is the commonest shallow water kelp in southern Australia. Numerous healthy plants were present on jetty pilings and rocks in the surrounding bed.

Cystophora and *Caulocystis* - These large brown kelps were abundant on the natural offshore reef. Several species of both genera are common on sheltered shallow water reefs in the bay.

Filamentous Algae- Abundant small green and red turfing species were not identified. Most species are however common in shaded habitat on jetties in the bay.

Invertebrates

The jetty and boat ramp pilings support an invertebrate community comprising species common in similar habitat in the bay. Visually dominant species include:

Polychaetes - A few individuals of the introduced tubicolous worm *Sabella spallanzanii* were noted. This introduced worm is now common on hard substrate around the bay.

Galeolaria caespitose - Large colonies of the encrusting calcareous tube building polychaete worm invest piles at mid tide level. The species is common throughout the bay.

Sponges - At least seven species of crustose and erect sponges including *Aplysilla rosea*, *Euryspongia sp.* and *Mycale spp* occur on jetty pilings and natural reef. These species are common in similar habitat throughout the bay.

Bryozoa - Red crustose *Mucropetraliella elleri* and large encrustations of yellow *Celleporaria sp.* were common on the jetty pilings. Both species colonize sheltered jetties around the bay.

Hydrozoa - Hydroids *Obelia dichotoma* and *Sertularia tenuis* were moderately common

on jetty pilings. Both species are abundant in sheltered habitat in the bay.

Ascidians

Pyura stolonifera - (see previous note) is a common colonizer of jetty piles and sandy rubble bed in the bay.

Botrylloides leachii - An encrusting compound ascidian common in sheltered habitat throughout the bay.

Gastropods

Haliotis rubra - Adult black lip abalone were present at the base of the piles. This commercial species is common in similar habitat in the bay.

Limpets

Patelloida and *Notomacea* - Both rock dwelling limpets are very common in shallow water habitat throughout the bay.

Fish

Sweep Scorpiis aequipinnus, - found around piles and shallow reef. The toady *Tetractenos glaber* is common in shallow water habitat throughout the bay.

Refer to **Appendix F** for a complete list of species, location and abundance.

What investigation of native vegetation in the project area has been done? (briefly describe)

MSE have been engaged to undertake a Marine Ecology & Fossil Assessment for the proposed site. (**Appendix F**) and Lanepiper have investigated the surrounding cliffs and foreshore reserve (outside of the BMYS site). **Appendix L and N.**

What is the maximum area of native vegetation that may need to be cleared?

NYD Estimated area(hectares)

Not applicable.

How much of this clearing would be authorised under a Forest Management Plan or Fire Protection Plan?

N/A approx. percent (if applicable)

Which Ecological Vegetation Classes may be affected? (if not authorised as above)

NYD Preliminary/detailed assessment completed. If assessed, please list.

Refer to MSE Marine Ecology and Fossil Bed Assessment report. (**Appendix F**)

Have potential vegetation offsets been identified as yet?

N/A NYD Yes If yes, please briefly describe.

Other information/comments? (eg. accuracy of information)

NYD = not yet determined

Flora and fauna

What investigations of flora and fauna in the project area have been done?

(provide overview here and attach details of method and results of any surveys for the project & describe their accuracy)

MSE have been engaged to undertake a Marine Ecology & Fossil Assessment for the proposed site. **(Appendix F)** and Lanepiper have investigated the surrounding cliffs and foreshore reserve (outside of the BMYS site). **Appendix N and L.**

Have any threatened or migratory species or listed communities been recorded from the local area?

NYD No Yes If yes, please:

- List species/communities recorded in recent surveys and/or past observations.
- Indicate which of these have been recorded from the project site or nearby.

As previously noted BMYS has engaged MSE to undertake a survey of the Marine Ecology. In this report they have identified the existence and make the following summary comment **(Appendix F, section 6.4)**:

“No unique or threatened marine species or communities, as defined or listed under the Victorian Flora and Fauna Guarantee Act 1988 or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 were found during the investigation.

*Marine animals listed under the EPBC Act which may conceivably visit northern Port Phillip are the Great White Shark (*Carcharodon carcharius*), and the Humpback Whale (*Megaptera novaeangliae*) both listed as vulnerable. There are no recent records of sightings of these species in the Bayside coastal area.”*

If known, what threatening processes affecting these species or communities may be exacerbated by the project? (eg. loss or fragmentation of habitats) Please describe briefly.

Not applicable.

Are any threatened or migratory species, other species of conservation significance or listed communities potentially affected by the project?

NYD No Yes If yes, please:

- List these species/communities:
- Indicate which species or communities could be subject to a major or extensive impact (including the loss of a genetically important population of a species listed or nominated for listing) Comment on likelihood of effects and associated uncertainties, if practicable.

Not applicable.

Is mitigation of potential effects on indigenous flora and fauna proposed?

NYD No Yes If yes, please briefly describe.

Other information/comments? (eg. accuracy of information)

13. Water environments

Will the project require significant volumes of fresh water (eg. > 1 GI/yr)?

NYD No Yes *If yes, indicate approximate volume and likely source.*

Will the project discharge waste water or runoff to water environments?

NYD No Yes *If yes, specify types of discharges and which environments.*

The project will capture and undertake Rainwater Harvesting as much as possible from the new club house facility, drystack facility and hardstand areas to be used to irrigate gardens and landscaping and well as reuse throughout the site (ie toilets, boat wash, etc)

Water waste from the boat and fish cleaning areas onshore will be separately banded and captured to be suitably treated and the removal of waste prior to being returned through the Storm Water system. Boat maintenance will not be permitted in the harbour or on the adjacent hardstand. Tributyl Tin (TBT) based antifouling paints are prohibited for boats under 25m in length and will not be permitted on boats moored in the BMYS Harbour. It is anticipated that all boats will be repaired and maintained at a commercial yard e.g. Sandringham Yacht Club.

The waters in the harbour will be flushed by tidal action and from wind induced circulation. The interchange of the harbour waters and that of Port Phillip Bay depends upon the area of the harbour and the size of the entrance channel. The area of the harbour is about 2.3ha and the clear entrance width is 30m. The tidal prism that includes an average tidal range is 0.5m will be exchanged over a tidal cycle of 13 hours.

The harbour layout promotes water circulation with curved internal walls that cause the flood tide to rotate around the harbour which maximises the exchange of water. The ebb tide would tend to draw from the internal boundaries. Flushing of the harbour will also be influenced by wind. Wind velocities of 10knots or greater will promote the mixing of incoming waters with those in the harbour.

The shape of the main harbour and the combined action of tides and winds will promote satisfactory water exchange. It is anticipated that the detailed design and modelling will show that sufficient currents are generated to induce adequate tidal exchange to maintain appropriate water quality.

Operation of the harbour will be in accordance with the SEPP. The existing drain that currently spills onto the small beach west of the reclamation will be incorporated into the breakwater and discharge directly into deep water for efficient dispersion and hence not impact on the harbour.

Harbour management will be required to implement a policy to maintain water quality. Discharge from boats into the harbour or the waters of Port Phillip Bay will be prohibited. Any sewage, sullage or bilge water will be held in tanks onboard the boats and pumped out at the facility provided at the service wharf.

Fresh water from the service modules at each berth will be used to wash the salt from the decks of boats in the marina.

Are any waterways, wetlands, estuaries or marine environments likely to be affected?

NYD No Yes *If yes, specify which water environments, answer the following questions and attach any relevant details.*

The Sediment Movement to the north east will be interrupted and a beach will form to the south west of the proposed breakwater. This sediment currently collects behind the groyne and is dredged and the spoil deposited 500m to the south east i.e. offshore Mentone Beach.

As part of the proposed redevelopment and a sand bypass pipe will be incorporated into the construction which can be used when the new beach starts to encroach on the end of the breakwater. This is likely to take 20 to 30 years.

For further detail refer to AME Coastal Processes report. **(Appendix F)**

Are any of these water environments likely to support threatened or migratory species?

NYD No Yes *If yes, specify which water environments.*

Are any potentially affected wetlands listed under the Ramsar Convention or in 'A Directory of Important Wetlands in Australia'?

NYD No Yes *If yes, please specify.*

Could the project affect streamflows?

NYD No Yes *If yes, briefly describe implications for streamflows.*

No. Only the storm water drain that currently discharges onto a sand area and rocks. This drain will be incorporated into the breakwater and discharged in deep water for rapid dispersion

Could regional groundwater resources be affected by the project?

NYD No Yes *If yes, describe in what way.*

Could environmental values (beneficial uses) of water environments be affected?

NYD No Yes *If yes, identify waterways/water bodies and beneficial uses (as recognised by State Environment Protection Policies)*

The beneficial uses to be protected are;

- Primary and secondary contact for recreation use – the marina will result in a positive impact in both primary and secondary contact with the water for recreation (fishing, recreational boating, etc) within the vicinity because it will increase the number of people accessing the site.
- Aesthetic enjoyment – there will be an impact on the visual aspects of the area because the marina will be in what is now an open site. This will be unlikely to impact negatively on the aesthetics from a shore (Beach Road) based perspective as the marina and club facilities will be difficult to see due to the cliffs.
- Indigenous, cultural and spiritual values – there are no known values associated with the waters at this site, and this project will not change that.
- Non-indigenous, cultural and spiritual values – there are no known values associated with the waters at this site, and this project will not change that.
- Aquaculture – the Beaumaris Aquaculture Fisheries Reserve is located in close proximity close proximity to the Beaumaris Motor Yacht Squadron but is unlikely to be impacted by the proposed redevelopment. The greatest risk to BAFR operations will continue to be potential contamination from stormwater discharge.
- Ricketts Point Marine Sanctuary – the Ricketts Point Marine Sanctuary covers an area of 115 hectares extends eastward from Quiet Corner to Table Rock Point for about 500 m offshore. The eastern boundary of the Sanctuary is approximately 600 m. from the BMYS site.

Construction and operation of the proposed redevelopment is unlikely to impact on the marine sanctuary. The greatest scope for impact is from possible indirect effects on coastal processes (and movement of sand) caused by the presence of the breakwater. Assessment of coastal processes to date, indicate that net sediment movement is from west to east.

Could aquatic, estuarine or marine ecosystems be affected by the project?

NYD No Yes If yes, describe in what way.

The club has engaged Geoff Atkins from Atkins Marine Engineering P/L (AME) and Dr Jan Watson and Harry Houridis from Marine Science & Ecology P/L (MSE) to undertake investigations and provide technical reports on Coastal Processes and Marine Ecology & Fossil Bed Assessment, respectively. Both of these reports are attached (**Appendix F and G**).

Below is an extract from the MSE Executive Summary:

“The field based assessment included a survey of rock revetments, piled structures, subtidal rocky reef and soft seabed habitat including seagrass. The nodule beds containing marine fossils of Miocene age exposed on the nearshore seabed were also investigated. The main habitat offshore from the existing BMYS facilities is sandy seabed with patchy seagrass and extensive areas of reef to the west and east of the site. The species noted were fairly typical of similar habitats elsewhere in northern Port Phillip Bay and predominantly the same species found in similar habitat in the nearby Ricketts Point Marine Sanctuary.

No unique or threatened marine species or communities, as defined or listed under the Victorian Flora and Fauna Guarantee Act 1988 or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 were found during the investigation.

The only introduced species noted was the European Fan Worm, Sabella spallanzanii. A species of green alga Codium fragile which may be the introduced sub-species tomentosoides is also present in the shallow subtidal environment.

The nodule bed at the base of the cliffs is an area of particular geological significance and forms part of the Beaumaris Bay Fossil Site. From the survey, the subtidal area of the nodule bed along the shoreline is estimated to be between 0.1 to 0.2 ha in area and represents the remnants of the larger bed that was reclaimed by BMYS more than thirty years ago.

The proposed redevelopment will have the greatest impact on the the nearshore environment adjacent to the existing rock revetment. This is already a highly modified environment consisting of mobile sands of little obvious ecological value. Much of the area east of the existing jetty is subject to ongoing maintenance dredging every three to four years.

Reclamation and breakwater construction will result in loss of soft bed habitat which will be replaced by hard (artificial) reef habitat.

According to the plan for redevelopment, a section of the remaining exposed nodule bed at the western end of the BMYS site lies under the proposed construction footprint. However it is planned to avoid burial of the nodule bed by constructing a sheet pile wall (instead of a traditional rock wall) to connect the foreshore with the remainder of the breakwater and that the area in front of the new clubhouse will be constructed as a piled deck (instead of landfill) over the identified fossil nodule bed”

In addition, Section 5 of this MSE report highlights the following preliminary assessment of impacts;

The key features of the BMYS redevelopment that have the greatest potential to impact the marine environment are the proposed seabed reclamation and the construction of the rock breakwaters to create a safe harbour.

5.1 Seabed Reclamation

The proposed reclamation will result in the infilling of less than 4,000 m² of seabed. The seabed proposed for reclamation lies within the east-west extent of the current BMYS footprint and is directly adjacent to the existing reclaimed area and rock revetment. Reclamation at the BMYS site was last undertaken in 1969.

Most, if not all of the proposed reclamation will result in the permanent loss of sandy seabed. The nearshore environment proposed to be reclaimed also includes a section of the fossiliferous nodule bed. The present bed is only a remnant of its former area, much of the original bed now being buried beneath the BMYS property. To avoid burial of the section of nodule bed that lies at the western end of the proposed redevelopment, the seabed will be covered by a piled deck structure and not infilled or buried. This section is in the vicinity of the proposed public access area labelled on the Concept Plan as a public kiosk.

Overall, the nearshore environment adjacent to the existing rock revetment is highly modified and consists of mobile sands with few ecological values. Much of the area east of the existing jetty is also subject to ongoing maintenance dredging every three to four years.

5.2 Shoreline Revetment

Reclamation will involve modification of the existing shoreline environment and replacement of the rock revetment. The loss of existing revetment will be replaced by an equivalent amount of substrate. However, the resultant habitat will differ from the existing habitat as the revetment will be enclosed within the harbour rather than exposed to the Bay.

5.3 Breakwater Construction

The estimated footprint area of the main breakwater is 0.88 ha and that of the eastern breakwater 0.32 ha giving a total breakwater footprint area of 1.2 ha. This area represents the total loss of existing soft bottom habitat from construction of the rock breakwaters.

The shorter breakwater to the east of the site will be constructed over an area of sand and extend from the main boat ramp to the east of the site to ~40 m seaward of the central boat ramp. This area of soft bed which will be permanently lost supports a community of infaunal species but no epibenthic species. Infaunal organisms are an important food resource for fish including flounder, whiting, flathead and snapper. However since much of the of the breakwater footprint will lie in shallow water usually entered only by flounder, direct loss of foraging grounds for these species is probably not significant.

The main breakwater to the west of the site will extend in a south easterly direction from the western edge of the existing BMYS site for a distance of ~150 m and enclose a total area of ~2.74 ha. The main breakwater will intersect an area of inshore reef (including a section of the nodule bed) close inshore; however most of the habitat affected by burial will be soft seabed. Some of this area also contains a sparse cover of patchy seagrass.

To prevent burial of the nodule bed, construction of a sheet pile wall is proposed over a 20 m section of seabed. The sheet pile wall will connect the shoreline with the breakwater and will ensure that the nodule bed is not buried under the breakwater. The sheet pile wall thickness is only 12.7 mm; hence any impact on the seabed will be negligible.

It is understood that the breakwaters will be constructed from rough quarried basalt. This will provide new artificial reef for colonisation by local species including shallow water algae, invertebrates and fish. Reef communities are slower to recolonise and proceed to maturity than those of the soft bed. Colonisation will commence with formation of bacterial and micro-algal biofilms. Within months, the biofilm will induce settlement of pioneer invertebrates and algae following which the community will then progress to maturity over several years. At this later stage reef-dwelling fish are likely to take up residence, sheltering in crevices between boulders and foraging on invertebrates and algae. As there will be greater wave energy and thus better water turnover on the seaward side of the breakwaters the outer revetment will offer a more attractive habitat and will probably be colonised by a greater range of species of organisms than the inner walls. The inner revetments will be colonised by species favouring quieter water conditions.

Additional habitat will be provided by pilings and floating jetties and walkways within the harbour.

5.4 Dredging and Maintenance Dredging

No dredging is proposed for inside the harbour; however some minor dredging in the order of 3000 m³ may be required in the proximity of the new ramp. This would be a one-off for the proposed redevelopment as the harbour is being designed for motor boats, not keeled boats which usually require deeper access. Maintenance dredging inside the harbour is unlikely to be required.

At this stage it is not envisaged that maintenance dredging will be required outside the entrance to the proposed harbour. It is estimated that approximately 1,000 m³ of sand is transported annually west to east along the Beaumaris shoreline and will gradually accrete west of the western breakwater to form a beach. There is an existing pocket of beach in this current location which will gradually increase in size as the sand starts to accumulate against the rockwall. It is estimated to take decades before the sand starts to move around the breakwater (Atkins, G. pers comm.).

Refer to MSE and AME reports, **Appendix F and G.**

Is there a potential for extensive or major effects on the health or biodiversity of aquatic, estuarine or marine ecosystems over the long-term?

No Yes *If yes, please describe. Comment on likelihood of effects and associated uncertainties, if practicable.*

Is mitigation of potential effects on water environments proposed?

NYD No Yes *If yes, please briefly describe.*

The design includes various aspects to minimise any potential impacts on water environments which is further detailed in the AME report (**Appendix F**).

These include:

- Limiting the marina to not extend beyond the current length of foreshore used by the club.
- Relocation of the Storm Water outlet from the current position (Keepers Cove beach) and incorporate this in the breakwater design to outflow offshore.
- Design of the marina incorporates curved internal angles with a relatively narrow opening to increase circular circulation of tidal water to provide regular flushing of the marina and limit the amount of sand build up inside the marina.
- Location and design of boat ramps removes the need for the regular maintenance dredging of this area, which every three to four years requires the removal of 3,000m³ of sand.
- New boat and fish cleaning facilities to collect all waste so as to not discharge directly into waters off the marina.
- EPA "Clean Marina" facilities which will greatly lessen the impact over the current facilities.
- New fuelling berth, tanks and facilities.
- Collection of rainwater for on site use.
- A sand by pass pipe will be incorporated into the redevelopment to transfer the sand to the north east if necessary in the future.

Additionally design modifications recommended from the Marine Ecology & Fossil Bed Assessment have been incorporated into the marina design including;

- the use of sheet piling and decking rather than reclamation and infilling over the areas identified as containing fossil nodule bed.

Other information/comments? (eg. accuracy of information)

14. Landscape and soils

Landscape

Has a preliminary landscape assessment been prepared?

No Yes *If yes, please attach.*

Is the project to be located either within or near an area that is:

- **Subject to a Landscape Significance Overlay or Environmental Significance Overlay?**

NYD No Yes *If yes, provide plan showing footprint relative to overlay.*

Yes, refer to Section 6.1 of MSE report (**Appendix F**)

- **Identified as of regional or State significance in a reputable study of landscape values?**

NYD No Yes *If yes, please specify.*

Yes, refer to Section 6.1 and parts of Section 4 of MSE report (**Appendix F**)

- **Within or adjoining land reserved under the National Parks Act 1975 ?**

NYD No Yes *If yes, please specify.*

- **Within or adjoining other public land used for conservation or recreational purposes ?**

NYD No Yes *If yes, please specify.*

Yes, the site is located within an area designated as Public Park Recreation Zone (PPRZ) in the Bayside Planning Scheme, and the redevelopment of the site is not proposed to alter this classification.

Refer to **Appendix H** for full DPCD Property Planning Report.

Is any clearing vegetation or alteration of landforms likely to affect landscape values?

NYD No Yes *If yes, please briefly describe.*

Is there a potential for effects on landscape values of regional or State importance?

NYD No Yes *Please briefly explain response.*

The proposed redevelopment does not directly effect or impede on the surrounding significant cliff features, with all works being carried out on the existing site and the area directly to sea of the existing site. The club has engaged Lanepiper to undertake a "Cliff face stability report" (**Appendix L**) in which several design recommendations have been made (particularly for the structure of the boat stacker facility to be able to withstand potential rock falls.

This report states;

"Based on the site inspections carried out, and the understanding of the supplied brief pertaining to the proposed BMYS redevelopment, the construction of the dry-stack structure, will not adversely impact the cliff face along the foreshore reserve as the structure will not be founded on or against the cliff faces, this is providing the development does not encroach onto the crown land. Furthermore there are no basement s or excavations near the boundary or excavations near the boundary of the site at the toe of the cliffs."

Additionally it is suggested that the new breakwater will assist in the building up of a beach immediately to the west of the site, which will assist in the protection of the cliffs from erosion from the sea. (**Appendix G**).

It is anticipated that the drystack facility will be not be visible from neighbouring properties, Beach Road or the cliff top path, as it sit below the level of the existing cliffs and vegetation.

The new club facility is located further from the sloped bank at its new location and the design will minimise visibility from Beach Road, as well as creating a pleasing design aesthetic for

this facility with clean roof lines free of plant and equipment.

To assist in visualising the size, visual mass and location of the new buildings, we have attached in **Appendix M** a photoshop perspective of the indicative design (note schematic design to proceed upon resolution of EES Referral process) and a cross section through the cliff and Dry-stack facility.

Is mitigation of potential landscape effects proposed?

NYD *No* *Yes* *If yes, please briefly describe.*

Please refer to the design statement from the Architect on measure and philosophy of the design to minimise impact on landscape (Section 18).

Other information/comments? (eg. accuracy of information)

Soils

Is there a potential for effects on land stability, acid sulphate soils or highly erodible soils?

NYD *No* *Yes* *If yes, please briefly describe.*

No

Are there geotechnical hazards that may either affect the project or be affected by it?

NYD *No* *Yes* *If yes, please briefly describe.*

The formation of a beach will protect the cliffs from wave attack and undermining that has contributed to collapses in the past

Other information/comments? (eg. accuracy of information)

15. Social environments

Is the project likely to generate significant volumes of road traffic, during construction or operation?

NYD No Yes *If yes, provide estimate of traffic volume(s) if practicable.*

1. Operation (No)

One of the primary drivers of the redevelopment of BMYS is to reduce the number of boats that are currently trailered to the site for launching and retrieval. The existing facilities do not have any capacity for on-site storage, where as the new facility has on site storage for 120 vessels in wetberths and another 78 located in a drystack facility. These new berths will reduce the number of boats that are trailered to and from the site for launching by almost 200, a significant reduction by one-third of the current fleet of 602 vessels registered in the club.

The resulting reduction in traffic (and thus parking) on Beach Road and neighbouring roads is expected to be far greater than the one-third reduction as it is anticipated that the boats that will be used more often will actually be the boats that are stored on site.

Additionally the redevelopment is not being undertaken to increase membership of the club so this expected to remain at the current level of 700.

It is also expected that with better facilities, the increased utilisation of these facilities, by members as well as a greater number of functions will increase possible traffic volumes of cars without trailers. However, it is anticipated that parking pressure caused by cars without trailers will be more than offset by the reductions in car/boat trailer numbers and the better functional layout of parking and traffic circulation. As well, it is expected that there will be significant reduction in traffic disruption caused by car/boat trailers over cars alone.

2. Construction (Yes)

Preliminary investigations have been made on the reduction of impact on surrounding roads and neighbours during construction. The difficulties are compounded by the steep narrow access to the site (which is not proposed to be altered by this project).

It has been identified that the major impact on traffic volume will be the importation of fill and rock / boulders for the breakwater wall. Currently there are two proposed construction methods being investigated in regards to the importation of the rock material for the breakwater and landfill.

Under the likely method rock will come to site on truck via beach road be for rock and landfill imported by truck. An alternative method which will be investigated is for the rock to arrive at site via barge from Geelong.

Section 3.4 of the AME report (Appendix G) summarises the construction impacts of the Marine Works;

“Construction will commence with the main and eastern breakwaters in order to provide protection to the near shore reclamation, boat ramp and loading dock. The breakwaters will comprise clean crush rock core with a filter of layers protected by heavier armour rock. The most economical method is by controlled end tipping of core by trucks, shaping the slopes with an excavator and then placing the filter layers and armour rocks by excavators. The filter layers and armour rock would closely follow the core so as to not leave core exposed to damaging seas. This is the same method adopted most of the breakwaters on Port Phillip Bay and elsewhere.

The quantity of rock in these elements is approximately 130,000m³. Approximately 5,500 truck deliveries are required to supply this material. It is envisaged that trucks will arrive every 10 minutes for 10 hours per day for about 5 months. A comprehensive traffic Management Plan will be required to control access from Beach Road.

An alternative transportation of breakwater materials is being investigated; being the barging of the rock material directly from Geelong. This method will significantly reduce traffic impacts on Beach Road, however feasibility is yet to be determined.

Once the breakwaters are of sufficient length and provide adequate protection to the reclamation and the pile deck construction at the western end can commence. The reclamation requires approximately 12,000m³ and at a similar delivery rate as for the breakwaters this work could be completed in less than one month.

With the completion of the breakwaters the pile driving for the mooring the marina berths and piled deck at the western end could be carried out. The pontoons for the marina and lay by berths would be delivered by truck possibly 1 or 2 loads per day. These placed on the water by crane, towed to location and assembled in sections and connected to the mooring piles.

The impacts associated with the construction works are:

- Traffic from delivery of rock and other construction materials
- Noise associated with pile driving for the deck and mooring piles
- Minimal turbidity associated with tipping of rock onto soft sediments on the seabed

These potential impacts are typical of those that have occurred elsewhere on Port Phillip Bay adjacent to major arterial roads and residential housing e.g. Sandringham Harbour and Hampton Beach construction. Construction Environmental Management Plans (CEMP) including Traffic Management Plans are required as part of the construction contracts to mitigate any potential impacts.”

Is there a potential for significant effects on the amenity of residents, due to emissions of dust or odours or changes in visual, noise or traffic conditions?

NYD No Yes If yes, briefly describe the nature of the changes in amenity conditions and the possible areas affected.

Is there a potential for exposure of a human community to health or safety hazards, due to emissions to air or water or noise or chemical hazards or associated transport?

NYD No Yes If yes, briefly describe the hazards and possible implications.

Is there a potential for displacement of residences or severance of residential access to community resources due to the proposed development?

NYD No Yes If yes, briefly describe potential effects.

Are non-residential land use activities likely to be displaced as a result of the project?

NYD No Yes If yes, briefly describe the likely effects.

No, in fact the project is expected to increase public use of the of this foreshore area, by creating greater access and better facilities (ie kiosk and access to breakwater for fishing), and for low level activities (ie walking, dog walking, fishing, etc)

Do any expected changes in non-residential land use activities have a potential to cause adverse effects on local residents/communities, social groups or industries?

NYD No Yes If yes, briefly describe the potential effects.

Is mitigation of potential social effects proposed?

NYD No Yes If yes, please briefly describe.

Other information/comments? (eg. accuracy of information)

16. Cultural heritage

Have relevant Indigenous organisations been consulted on the occurrence of Aboriginal cultural heritage within the project area?

- No If no, list any organisations that it is proposed to consult.
 Yes If yes, list the organisations so far consulted.

Aboriginal Affairs Victoria (AAV) has been consulted regarding Aboriginal Cultural Heritage aspects for this site.

1. Aboriginal Cultural Heritage applying to the BMYS site

Preliminary discussion and advice has been sought from Aboriginal Affairs Victoria (AAV) on the issue of Aboriginal Cultural Heritage and the Aboriginal Heritage Act 2006 (the Act). As a result of these discussions and review of the Aboriginal Heritage Regulations 2007, it is understood that the Act does not apply specifically to this site.

The below sections are the relevant extracts from the Aboriginal Heritage Regulations 2007, with the applicable comment relevant to this proposal in *red italics*;

Division 2—Exempt activities

18 Sea-bed

The development of the sea-bed of the coastal waters of Victoria or any sea within the limits of Victoria is an exempt activity.

The proposed BMYS redevelopment is entirely on the existing site created in 1959 through reclaiming Sea-bed through land fill activities, thus prior to 1959 this site only existed as Sea-bed.

Division 3—Areas of cultural heritage sensitivity

27 Coastal Crown land

- (1) *Subject to subregulation (2), coastal Crown land is an area of cultural heritage sensitivity.*
- (2) *If part of an area of coastal Crown land has been subject to significant ground disturbance, that part is not an area of cultural heritage sensitivity.*

Section 27(2) applies; in that the entire existing site under the current the Crown Lease has been subject to significant ground disturbance, in that it is entirely man made through land reclamation.

Division 5—High impact activities

42 Purpose

The purpose of this Division is to specify high impact activities.

Note

Under regulation 6, a cultural heritage management plan is required for an activity if all or part of the activity area is an area of cultural heritage sensitivity and if all or part of the activity is a high impact activity.

43 Buildings and works for specified uses

- (1) *The construction of a building or the construction or carrying out of works on land is a high impact activity if the construction of the building or the construction or carrying out of the works—*
- (a) *would result in significant ground disturbance; and*
- (b) *is for or associated with the use of the land for any one or more of the following purposes—*
- (xv) a minor sports and recreation facility;*
 - (xvii) a place of assembly;*
 - (xviii) a pleasure boat facility;*

(3) Despite subregulation (1), the construction of a building or the construction or carrying out of works on land is not a high impact activity if it is for or associated with a purpose for which the land was being lawfully used immediately before the commencement day.

Section 43(3) applies; in that the proposed redevelopment of BMYS as the purpose for which the land was being lawfully used before the commencement day has not changed.

This opinion is also confirmed by using the tool on the AAV website www.dpcd.vic.gov.au/aaav which also indicated that this project on this site would not require a Cultural Heritage Management Plan.

2. Consultation with local indigenous tribes

Separate to the existence Aboriginal Cultural Heritage it is planned that the relevant Indigenous organisations will be contacted and briefed on the planned redevelopment to seek their comments, thoughts and suggestions. Under the BMYS – Safe Harbour Project Communications Plan (**Appendix J**) it is intended that these discussions will occur prior to the finalisation and any submission of documents for a Planning Permit, to be able to take on board comments and suggestions from all members of the public.

Additionally, despite our understanding that this is no Aboriginal Cultural Heritage on this site, it is yet to be determined about any potential claims on Native Title and negotiation of an Indigenous Land Use Agreement (ILUA) after successfully obtaining a Planning Permit.

The Bayside area has three separate Indigenous tribes of the Boonerwung people of the Kulin nation who are planned to be consulted on this project.

What investigations of cultural heritage in the project area have been done?

(attach details of method and results of any surveys for the project & describe their accuracy)

Refer to comments made in response to other questions.

Is any Aboriginal cultural heritage known from the project area?

NYD No Yes If yes, briefly describe:

- Any sites listed on the AAV Site Register
- Sites or areas of sensitivity recorded in recent surveys from the project site or nearby
- Sites or areas of sensitivity identified by representatives of Indigenous organisations

No, there is no Aboriginal Cultural heritage located within the BMYS site.

Yes, there is a registered Aboriginal Cultural Heritage site located at the top of the cliffs overlooking the BMYS site.

The club has investigated areas outside of the BMYS site under lease with DSE. Further discussions were had with AAV, with a formal request being made for the notification of advice of the existence of records in the surrounding cliffs and foreshore reserve. On the 7th of April AAV advised of a site identified as "shell deposit" ID no. 7922-0190. being located at on the foreshore reserve (refer to **Appendix K**).

Following this advice a request was made to view and make a copy of this record (**Appendix K**). Further discussions were had with Kellie Clayton of AAV, and due to the age of the record (1990), scant details are known on what the site is, its precise location and its current existence. However it appears that this shell middle is located on the cliff top within the tea-tree vegetation to the east of the BMYS site.

Again it is stated that the proposed development does not physically touch or impact on these cliffs.

Are there any cultural heritage places listed on the Heritage Register or the Archaeological Inventory under the Heritage Act 1995 within the project area?

NYD No Yes If yes, please list.

There are no places listed on the Heritage Register or the Archaeological Inventory under the Heritage Act 1995, however the Beaumaris Bay Fossil Site is listed on the Register of the National Estate (Australian Heritage Database – **Appendix N**).

Is mitigation of potential cultural heritage effects proposed?

NYD *No* *Yes* *If yes, please briefly describe.*

Other information/comments? (eg. accuracy of information)

17. Energy, wastes & greenhouse gas emissions

What are the main sources of energy that the project facility would consume/generate?

- Electricity network. If possible, estimate power requirement/output*
- Natural gas network. If possible, estimate gas requirement/output*
- Generated on-site. If possible, estimate power capacity/output*
- Other. Please describe.*

The Clubhouse Building would be designed in strict accordance with the mandatory Energy Efficiency provisions for Class 5 to 9 buildings as required by Sections J – Energy Efficiency and Section I – Maintenance, under the Building Code of Australia – Volume One – 2008. Best practice initiatives would be incorporated into the new Clubhouse Building as recommended by the Australian Greenhouse Office and the National Framework for Energy Efficiency (NFEE).

BRT Consulting engineers have provided the following estimates on energy consumption based on occupancy estimated to be 2,000 hours per year and an average 50% loading over the year:

- Maximum Energy Electrical Demand (point of time) - 70kW.
- Maximum Energy Demand (point of time) - 1000MJ.
- Estimate Annual Energy Consumption Electricity – 50MWhr.
- Estimate Annual Energy Consumption Gas – 800GJ.

What are the main forms of waste that would be generated by the project facility?

- Wastewater. Describe briefly.*
- Solid chemical wastes. Describe briefly.*
- Excavated material. Describe briefly.*
- Other. Describe briefly.*

Please provide relevant further information, including proposed management of wastes.

Waste generated by the redevelopment would be that which is typically found in similar club / function facility of similar size. Currently all hard waste produced at the site is removed under a waste removal contract. General site run-off from the hardstand areas will be collected as Storm Water and where appropriate be harvested for reuse, prior to being discharged to Port Phillip as Storm Water.

Under the redevelopment, the waste water run-off from the boat wash down and fish cleaning areas will be separately banded and collected (through interceptor pits, etc) to be treated / recycled prior to being release into deep water from the end of the breakwater.

The new 120 berth floating marina would typically produce the following wastes;

- Direct waste discharges into the enclosed harbour; - controlled by good housekeeping, marina bi-laws and management policies.
- Unwarranted small scale boat maintenance in berths; - controlled by good housekeeping, marina bi-laws and management policies.
- Potential fuel spills; - controlled by good housekeeping, marina bi-laws and management policies. Typically a fuel spill response unit would be on stand-by at the

marina (e.g. a wheelie bin containing containment materials, booms, etc)

- Litter and refuse; etc. - controlled by good housekeeping, marina bi-laws and management policies. Standard marina practices to minimise ? remove unsocial behaviours and practises.

Section 3.2 of the AME report (**Appendix G**) outlines principals behind the design of the marina to promote regular flushing of waters contained in the marina. Further studying and modelling would be required to state what are the “design” period for flushing of the marina waters.

What level of greenhouse gas emissions is expected to result directly from operation of the project facility?

- Less than 50,000 tonnes of CO₂ equivalent per annum*
- Between 50,000 and 100,000 tonnes of CO₂ equivalent per annum*
- Between 100,000 and 200,000 tonnes of CO₂ equivalent per annum*
- More than 200,000 tonnes of CO₂ equivalent per annum*

Please add any relevant additional information, including any identified mitigation options.

The calculation of expected CO₂ emission for this facility is based on comparable activities undertaken at Sandringham Yacht Club, however on a much reduced scale (ie 30%).

18. Other environmental issues

Are there any other environmental issues arising from the proposed project?

- No Yes *If yes, briefly describe.*

Refer to MSE and AME reports, **Appendix F and G**.

19. Environmental management

What measures are currently proposed to avoid, minimise or manage the main potential adverse environmental effects? (if not already described above)

- Siting: Please describe briefly*
- Design: Please describe briefly*
- Environmental management: Please describe briefly.*
- Other: Please describe briefly*

Add any relevant additional information.

Specific environmental mitigation measures are identified in Sections 7 – 12 of this referral addressing the foreshore reserve, cliffs, flora and fauna and the marine flora and fauna. The following section outlines the architectural / design measures to be incorporated to avoid / minimise the visual and aesthetic effects.

The overall Architectural approach and philosophy would be a Clubhouse and other structures on the site which will maintain and enhance the established coastline landscape character of this area. We envisage a fairly nautical approach to the design and a variety of textures and colours which will create an interest that will also maintain dignity well into the current century.

Aesthetically the Clubhouse and other structures will be developed in accordance with “Site and Design Guidelines for Structures on the Victorian Coastline” as detailed in the original May 1998 “Victorian Coastal Council Guidelines” together with the more recent 2008 “Victorian Coastal Strategy”.

The proposed two storey Clubhouse will be cited southwest of the existing Clubhouse which will nestle into the surrounding cliff face with a reduced line of site from Beach Road. The

proposed two storey Clubhouse will have an approximate gross floor area of 1,390sqm and accommodate both members and the administrative staff. The heightened bulk of the building will be carefully designed to ensure that the "Site and Design Guidelines for Coastal Structures" is maintained. The Clubhouse structure is classified Class 5, Class 7A and 7B as per the "Building Code of Australia" and will be designed in strict accordance with the "Building Code of Australia – Volume 1 2008".

The design of the new Clubhouse building will be sympathetic to the environment and to the site. The design of the Clubhouse building will incorporate the following features to minimise any adverse environmental effects namely: -

1. Form

The form of the proposed building shall maintain and enhance the existing coastal landscape character without providing dominance but rather a low key profile without excessive bulk or cubic form.

2. Line

The adoption of the low profile roof structure with a simple skillion or curved roof concealing all mechanical and kitchen exhausts will reduce the impact of the existing structure from Beach Road and the surrounding environment.

3. Colour and Texture

The final colour selection will be subject to further review by the client and Council as part of the planning process. In summary, the colour and texture will compliment or contribute to the landscape character of the area and relate to the surrounding vegetation, i.e., soil and rocks. Colours will echo the surrounding environment, cliff face, vegetation and boats in the harbour. With careful design to the perimeter windows, there will be no need for reflective glazing.

4. Views

The proposed Clubhouse will not impair existing views to the water from Beach Road residences or other occupiers.

The Clubhouse design will be carefully researched through meetings with the individual members and stakeholders together with Consultants to adopt the latest environmental sustainability design elements to be incorporated into the final design.

It is anticipated that the drystack facility will be not be visible from neighbouring properties, Beach Road or the cliff top path, as it sit below the level of the existing cliffs and vegetation.

The new club facility is located further from the sloped bank at its new location and the design will minimise visibility from Beach Road, as well as creating a pleasing design aesthetic for this facility with clean roof lines free of plant and equipment.

To assist in visualising the size, visual mass and location of the new buildings, we have attached in **(Appendix M)** a photoshop perspective of the indicative design (note schematic design to proceed upon resolution of EES Referral process) and a cross section through the cliff and Dry-stack facility.

19. Other activities

Are there any other activities in the vicinity of the proposed project that have a potential for cumulative effects?

NYD No Yes *If yes, briefly describe.*

20. Investigation program

Study program

Have any environmental studies not referred to above been conducted for the project?

No Yes *If yes, please list here and attach if relevant.*

Has a program for future environmental studies been developed?

No Yes *If yes, briefly describe.*

Consultation program

Has a consultation program conducted to date for the project?

No Yes *If yes, outline the consultation activities and the stakeholder groups or organisations consulted.*

BMYS has undergone extensive consultation during the Pre-Planning Permit phase of this project.

A Planning Committee has been established for over 6 months including the principle stakeholders of DSE and BCC. Throughout this process active input and consultation has been sought and received from these stakeholders and are now reflected in the design. It is anticipated that through this approach that the Public Land Manager's (DSE) consent will be obtained prior to submitting the Planning Permit Application.

Additionally the club has produced the BMYS – Safe Harbour Project Communications Plan (**Appendix J**), which in section 3.4 identifies all of the communications planned.

Has a program for future consultation been developed?

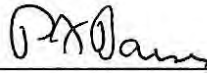
NYD No Yes *If yes, briefly describe.*

Yes, refer to BMYS – Safe Harbour Project Communications Plan (**Appendix J**).

Authorised person for proponent:

I, PETER F BARNES.....(full name),

COMMODORE (RM45).....(position), confirm that the information contained in this form is, to my knowledge, true and not misleading.

Signature 
Date 11/05/09

Person who prepared this referral:

I, Mark Turnbull.....(full name),

Project Manager - MDT consulting.....(position), confirm that the information contained in this form is, to my knowledge, true and not misleading.

Signature 
Date 13/5/09