

Sandringham Harbour

Draft Local Port Area Plan

The logo for AW maritime, featuring a stylized 'AW' in blue and green followed by the word 'maritime' in a dark blue, lowercase sans-serif font.

Prepared for The logo for Parks VICTORIA, featuring a stylized green and blue mountain range above the word 'Parks' in a bold, green, sans-serif font, with 'VICTORIA' in a smaller, blue, uppercase sans-serif font below it.

May 2022

AW Maritime Pty Ltd
63/574 Plummer Street
Port Melbourne Victoria 3207

Executive Summary

Parks Victoria, as local port manager for Port Phillip, is preparing a local port area plan (plan) for Sandringham Harbour. In addition to confirming the entrance channel, swing mooring area and off-the-beach boating requirements, the plan considers the future options for Hampton Pier.

Local port area plans are developed to allow prioritisation of asset investment based on the broader local port precinct. This will more effectively achieve economic, environmental and community outcomes.

Sandringham Harbour is a regional boating facility within the local port of Port Phillip that provides a diversity of services and facilities for boating (through clubs, associations and business) and is highly valued by the local community. The harbour comprises an expansive area of sheltered water, a rock breakwater, wave screen, floating marina, swing moorings and Hampton Pier. In addition to the maritime features of the harbour, the foreshore and beach provides a range of recreational, business and tourism opportunities and facilities connecting the land and on water experiences for the local community and visitors to enjoy.

AW Maritime Pty Ltd (AWM) has been engaged by Parks Victoria to provide consulting services for the development of the Sandringham Harbour Local Port Area Plan.

The purpose of this draft plan is to summarise the challenges and opportunities that have been considered to improve safe operation and sustainability of the harbour. It is intended to generate discussion on the options to help inform the development of the final plan.

The development of the plan is being guided by a Project Reference Group comprising members from the Department of Transport, Bayside City Council and Parks Victoria.

The objectives of the plan are to:

- enable continued support for the wide range of uses of the harbour,
- define the vessel entrance channel and safe navigation requirements,
- propose options for Hampton Pier,
- provide direction regarding the future of swing moorings and berths which Parks Victoria currently manage within the harbour, and
- consider the needs of the fast growing 'off the beach' boating users.

In preparing the draft plan, input from key stakeholders (local businesses, clubs, community and user groups) was sought through a series of online forums. This valuable early input highlighted several challenges and opportunities, including:

- The heritage and community value of the pier and surrounds.
- The range and growing number of users that value and utilise the area.
- Sedimentation of the harbour and the accumulation of organic material.
- The opportunity to provide all abilities access for a range of on-water activities.
- Challenges and opportunities related to safe navigation and moorings.
- The impacts of climate change and sea level rise.

This information has informed the development of the draft plan, which proposes options to address four key challenges, being:

- **Navigation.** The existing eastern entrance channel does not comply with the relevant Australian Standard. By reconfiguring the pier head and mooring ground there is an opportunity to provide a compliant entrance channel and improve off-the-beach sailing access to open water.
- **Moorings.** The swing mooring arrangement impinges on the navigation channel. Sedimentation and wave climate are also impacting on the mooring arrangement. Optimisation of the mooring layout is presented in the draft plan.
- **Hampton Pier.** A future Hampton Pier should acknowledge its heritage value and provide for all-abilities access for boating activities. Materials, location, extent and use of a pontoon are proposed to achieve this outcome.
- **Hampton Pier Entrance and Accessibility.** Opportunities to improve the pier entrance and accessibility include the incorporation of short-duration parking for kayak and other craft equipment drop off / pick up, and improved access to the water from the pier.

Contents

Executive Summary.....	i
1 Introduction	1
1.1 Study Area.....	1
1.2 Purpose and Objectives	2
1.3 Strategic Context.....	3
2 Background	4
2.1 Harbour History.....	4
2.2 Breakwater.....	5
2.3 Hampton Pier	5
2.4 Coastal Processes and Sedimentation	5
2.5 Organic Material	6
2.6 Climate Change Considerations	7
3 Stakeholder and Community Insights.....	8
3.1 Stakeholder Consultation.....	8
3.1.1 The approach	8
3.1.2 Key Findings	9
4 Future Management Direction	11
4.1 Purpose	11
4.2 Objectives.....	11
4.3 Key Issues and Proposed Solutions.....	11
4.3.1 Navigational Safety	11
4.3.2 Mooring Ground	13
4.3.3 Hampton Pier	15
4.3.4 Pier Entrance and Accessibility	17
4.3.5 Sedimentation.....	18
5 Implementation	20
5.1 Project Stages.....	20
5.2 Next Steps	20
6 References	21
APPENDIX A – Stakeholder Focus Groups – Key Findings Report.....	22

Acknowledgement of Country

Aboriginal cultural landscapes form the core of Victoria’s network of parks and reserves and have been modified over many thousands of years of occupation. They are reflections of how Aboriginal people engage with their world and experience their surroundings and are the product of thousands of generations of economic activity, material culture and settlement patterns. The landscapes we see today are influenced by the skills, knowledge and activities of Aboriginal land managers. Parks Victoria acknowledges the Traditional Owners of these cultural landscapes, recognising their continuing connection to Victoria’s parks and reserves and ongoing role in caring for Country.

Sandringham Harbour is on Bunurong Sea Country, and Parks Victoria has consulted with the Bunurong Land Council Aboriginal Corporation during the preparation of the draft plan.

1 Introduction

Parks Victoria is appointed as the local port manager for Port Phillip and as the Committee of Management for Sandringham Harbour and Pier Reserve (which includes Hampton Pier). AW Maritime Pty Ltd (AWM) has been engaged by Parks Victoria to provide consulting services for the development of a Local Port Area Plan (plan) for the on-water components of Sandringham Harbour.

Sandringham Harbour is a regional boating destination within the local port of Port Phillip on Bunurong Sea Country. It is a popular place supporting a range of uses that benefits from the natural and built features of the harbour. The harbour is home to three boat / yacht clubs, many businesses (boat repairs, sales, education/tourism providers, hospitality, etc.), and active community groups.

This draft Local Port Area Plan for Sandringham Harbour has been prepared in accordance with the Department of Transport's Sustainable Local Ports Framework 2021.

To ensure the harbour remains a thriving regional boating facility the on-water features need to be fit for purpose. This plan aims to ensure Hampton Pier, entrance channel and mooring ground meet the Australian Standard – Marina Design, and provide the space required to support the range of existing and emerging boating activities.

1.1 Study Area

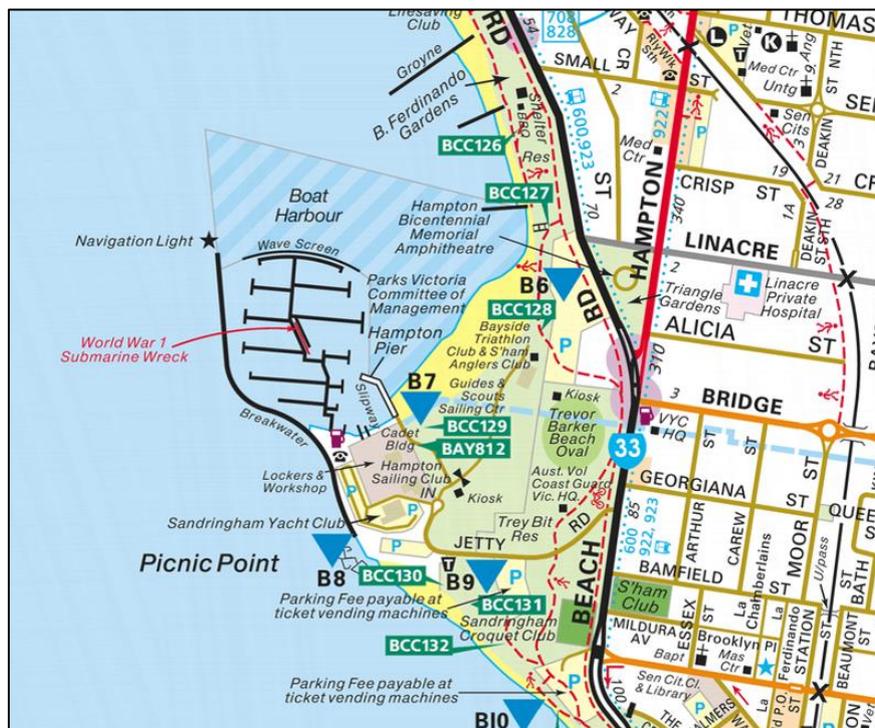


Figure 1 – Location of Sandringham Harbour (Source: Melway Map 76)



Figure 2 – Study Area (Aerial image: Nearmap 29/10/2021)

1.2 Purpose and Objectives

The plan has been developed to improve the function and sustainability of Sandringham Harbour while protecting its values ensuring it remains a regional maritime and boating destination that cultivates economic and social prosperity. The plan is focused on maritime infrastructure and excludes adjoining land.

The objectives are to:

- enable continued support for the wide range of uses of the harbour,
- define the vessel entrance channels and safe navigation requirements,
- propose options for Hampton Pier,
- provide direction regarding the future of the swing moorings and berths managed by Parks Victoria within the harbour, and
- consider the needs of the fast growing 'off the beach' boating users.

The purpose of the draft plan is to summarise the challenges and opportunities that were heard and considered during early stakeholder consultation. It is intended to generate discussion on the proposed options to address the key issues. The next stage of community feedback will be used to help evaluate the proposed options and inform a final plan.

The development of the plan is being guided by a Project Reference Group comprising members from the Department of Transport, Bayside City Council and Parks Victoria.

The draft plan addresses:

- improved function and layout for Sandringham Harbour (entrance channels, swing moorings, and safe navigation),
- options for Hampton Pier, and
- sedimentation management (coastal processes).

1.3 Strategic Context

The Victorian Government is committed to developing a long-term strategy for the future management and maintenance of local ports infrastructure. It is doing this through implementing the Sustainable Local Ports Framework 2021 (framework) that will help manage, maintain and prioritise funding for these assets where it's needed most.

The framework provides a consistent planning and decision-making pathway to support wider precinct planning, through local port area plans. Four principles will be applied to prioritise future upgrades and improvements. These include Local Economy and Job Growth, Tourism and Recreation, Emergency Response, Community and Cultural Value.

Guided by the framework, the Sandringham Harbour Local Port Area Plan is being developed using a place-based approach which leverages local knowledge and expertise to plan for the future of local port infrastructure assets and services.

2 Background

2.1 Harbour History

Sandringham Harbour occupies the traditional land and water of the Bunurong people of the East Kulin.

One of the first elements of the harbour to be constructed was the original Hampton Pier in 1882. The pier supported fishing boats and was used as a general recreational facility. A timber breakwater was constructed between 1906 and 1909 to provide sheltered water near the pier, and extended in 1935 and 1939, but has since been demolished.

The original pier has been modified over time, with the most recent modifications being done in 1968. The main rock breakwater was constructed during 1948-51 and provided protection to the growing commercial fishing and boating fleet. It also provided one of several venues for the 1956 Olympics sailing competition on Port Phillip. Sandringham Yacht Club installed their floating marina and wave screen in 1993. Figure 3 provides a summary of the early development of the harbour.

In 2018 the Department of Environment, Land, Water and Planning (DELWP) delivered beach renourishment works including construction of a new rock groyne.

Today, the harbour provides a safe haven for the marina and swing moorings, and also a refuge for vessels seeking sheltered waters during storm events. Prior to its closure in 2020 due to structural failure, Hampton Pier and low landing provided an access point for emergency services and recreational activities.

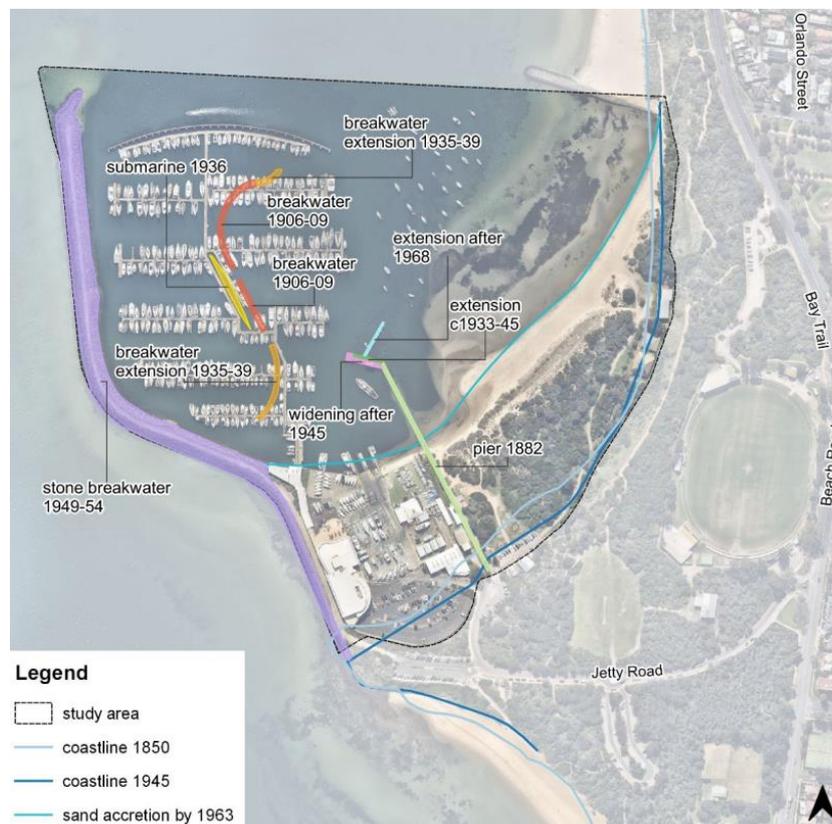


Figure 3 – Summary of harbour development over time (Source: GML 2021)

2.2 Breakwater

The breakwater currently provides protection for approximately 400 recreational vessels within the harbour, including a marina, swing mooring area and Hampton Pier. Maintenance works over the past 70 years have included the seaward extension of the breakwater to 670 metres in 1993-94, stage 1 repair work to rock armour (over 150 lineal metres) in 2001-02, and then stage 2 of another 150 lineal metres and re-establishment to provide safe pedestrian access in 2006-07.

In 2017, further repair work was undertaken on the shore end of the breakwater to complete the refurbishment. Based on this history, the breakwater will be due for significant repair work in 2050. Parks Victoria undertakes routine monitoring and maintenance of the Sandringham Breakwater.

2.3 Hampton Pier

Hampton Pier was first constructed in 1882 and is situated on a headland named Picnic Point. The pier has been modified and extended over time with a new pier head added in 1933-45, a widening of that pier head after 1945, and a further extension after 1968 to support a fixed mooring area which can cater for up to 15 vessels. The pier has undergone various repairs and replacement works with the deck structure replaced on the existing piles in 2002-03.

In the interest of public safety, Parks Victoria closed Hampton Pier in June 2020. This decision was based on recommendations from a dive inspection report regarding the condition of the pier and pile berths. The pier deck is slumping where the piles have failed.

Prior to its closure in 2020, the pier supported recreational fishing, pick up and drop off of passengers via a low landing, exclusive berths for 12 recreational vessels, and a pleasant place for a short walk. It was also used by emergency services for training and other purposes, such as supporting the yacht club race day activities.

2.4 Coastal Processes and Sedimentation

This stretch of coastline is subject to seasonal variations in sand movement, with waves generated by summer southerly winds driving sand northwards along the coast, and waves generated by winter northerly winds driving sand southward.

After the construction of the breakwater in the 1940s, the harbour *"became a trap for the beach sand that drifted southwards in the winter months ... and this sand no longer returned northward in summer."* (Bird, 2011). The net effect is that sand is driven into the harbour from the north and settles in the sheltered waters of the harbour, resulting in a shallowing of the harbour. *"Sandringham Harbour was reduced in area and shallowed by the accumulation of sand."* (Bird, 1993). These actions are summarised in Figure 4.

Loss of sand from Hampton Beach has been attributed to the construction of the breakwater. To maintain Hampton Beach, groynes and beach renourishment work has been undertaken periodically.



Figure 4 – Study area coastal processes (Aerial image: Nearmap 29/10/2021)

2.5 Organic Material

Periodically an issue arises with the accumulation and decay of marine plant material along the shore and in nearshore shallow waters. In a similar process to that which causes sedimentation of the harbour, seaweeds and seagrasses that grow on the sandy seabed of Sandringham Harbour and seabed north of the harbour are transported by northerly winds and waves into the harbour.

As this material naturally decays it forms a black smelly mud, which impacts on the use and enjoyment of sections of the beach. The deposits become particularly thick along the beach that is accessed from the Sandy Beach Kiosk, and also in front of the Hampton Sailing Club and Sandringham Yacht Club, as shown in Figure 5. When required this material is dredged and deposited outside of the harbour, with the most recent maintenance work occurring in 2019.



Figure 5 – Accumulation of organic material. (Aerial image: Nearmap 29/10/2021)

2.6 Climate Change Considerations

Like all coasts, the Sandringham coastline will be affected by climate change. As sea levels rise and predicted storm intensity increases, areas along the coast are likely to experience increased erosion and inundation affecting beach width and coastal resilience. Within Sandringham Harbour, which is well protected by the breakwater and wave screen, the primary concerns are:

- The heights of structures relative to increased sea levels. For example, any new infrastructure needs to be set at a height that caters for sea level rise and storm surge. However, increasing the deck level of the pier to allow for sea level rise will make boarding and disembarking vessels difficult, so a solution could be to use a pontoon. Given the well protected waters of the harbour this is a viable option for providing safe vessel access.
- Areas of accretion and potential changes to sedimentation rates over time. Changes in wind and wave patterns may affect the rates of sedimentation and organic material accumulation in the harbour.

These matters will require careful consideration in both early planning stages and detailed design of new infrastructure. The *Marine and Coastal Policy 2020* provides an integrated and coordinated approach to addressing these changes. Of relevance to this project, sea level rise of 0.8 metres by the year 2100 is being considered, as will a predicted increase storm intensity and storm tide water levels. The predicted inundation of the site at high tide over the next 75+ years, inclusive of sea level rise, may cause localised flooding on foreshore land.

3 Stakeholder and Community Insights

Sandringham Harbour has been an iconic waterside facility for more than 100 years and is an important focal point for the community. Stakeholder and community input is being sought at two key stages of the development of the plan as follows:

- Stage 1 – Stakeholder Consultation. The process to gather early information to inform the draft plan is complete and outlined below in section 3.1.
- Stage 2 – Community Consultation. The process seeks community feedback via the Engage Victoria platform on the draft plan and options proposed to inform the final plan. This process will begin soon.

3.1 Stakeholder Consultation

3.1.1 The approach

Parks Victoria convened online focus groups with the clubs, tenants, peak bodies and interest groups in September 2021. Representatives from the Project Reference Group were also invited to participate. An existing conditions plan was prepared to help inform this discussion, refer to Figure 6.

Attendees were asked how they currently use the harbour, what challenges they experience and their ideas for the future. Input has been used to inform this draft plan. For a detailed listing of the groups that participated in this consultation stage refer to Appendix A.



Sandringham Harbour Precinct - Existing Conditions

Figure 6 – Existing Conditions Map

3.1.2 Key Findings

Sandringham Harbour is a thriving precinct on Port Phillip. While the harbour has traditionally supported a strong sailing and motorised boating presence, the fast growing ‘off-the-beach’ non powered boating sector is also evident. Hundreds of vessels such as yachts, dinghies, kayaks, canoes, personal watercraft (PWCs), stand up paddle boards (SUPs), sail boards, tenders, motorboats, call the harbour home and use it as the key point of access to Port Phillip for recreational, competitive and commercial boating activities.

During the workshops, participants conveyed the value of the environment and sense of community that the harbour and foreshore also supports. The harbour provides for more than just boating; with dog walking, cold water walking, bird watching and quiet areas, and a network of paths to explore. Many references were also made as to how the clubs / tenants / interest groups support each other in their activities.

During Stage 1, both the existing challenges and possible future solutions were discussed. There was a commonality on the issues raised by stakeholders, with most conversations centred on navigational safety and swing moorings, Hampton Pier and coastal processes.

A summary of the issues for each of these topics is provided in Table 1 – Stage 1 Stakeholder Focus Group Key Issues.

Table 1 – Stage 1 Stakeholder Focus Group Key Issues

<p>Emerging Boating Uses</p> <ul style="list-style-type: none"> • Improved access and accommodation e.g. SUP, kayaking, ocean kayaking. • Drop off and pick up zones. • Storage for tenders and paddle craft (both on water and land).
<p>Swing Moorings</p> <ul style="list-style-type: none"> • Parks Victoria to undertake housekeeping – remove un-used moorings and un-seaworthy vessels to create space to reconfigure the mooring ground layout for the active swing mooring users. • Install fore and aft pile moorings to make more efficient use of the limited area. • Dredging the swing mooring area. Parks Victoria provided advice some 10 years ago that dredging to provide space for more swing moorings at Sandringham was not a feasible option. • Explore viability for wave protection measures to the north to create additional space for swing moorings.
<p>Hampton Pier</p> <ul style="list-style-type: none"> • All abilities access. • A low landing for emergency vessels, paddle craft pick up and drop off, etc. • Open up the water area on the western side of the current pier for off the beach sailboat access. • Space for the Hampton Sailing Club rescue boat to moor (berth) at pier. • On shore storage and on water tender berths for swing mooring permit holders. • Passive activities – fishing, sightseeing, sitting, walking. • Vehicle access for maintenance of vessels (restricted - permit only access).

- Provision of some private short-stay vessel berths with power, pump out and freshwater supply.

Coastal Processes

- Impacts of sedimentation on harbour access.
- Need to better understand the impact of the new groyne on coastal processes.
- Acknowledgement that maintenance dredging is required to provide access to Hampton Pier and the Sandringham Yacht Club marina.
- Manage the “black sludge”, and possible option to address the impacts of sedimentation on other harbour activities e.g. swing moorings, kayak and tender launching.
- Consider marine environment impacts.

For a more comprehensive summary of the stakeholder groups and the key issues and opportunities raised, refer to Appendix A - ‘Sandringham Harbour - Stakeholder Focus Groups Key Findings’ document.

4 Future Management Direction

4.1 Purpose

Sandringham Harbour, on Bunurong Sea Country, is one of the iconic yachting and boating destinations within Port Phillip. More recently it has become a popular place for 'off the beach' boating activities such as kayaking and paddle boarding.

The purpose of the Sandringham Harbour Local Port Area Plan is to ensure the harbour continues to be a safe, sustainable and vibrant maritime precinct that supports a range of recreational and commercial uses while remaining an important community focal point for many more years to come.

It will do this by setting out a future management direction that addresses the current challenges and identified opportunities to achieve maximum community benefit.

4.2 Objectives

The objectives of the plan are to:

- enable and support a diversity of uses and users of the harbour,
- define the vessel entrance channel and ensure navigational safety requirements are met as far as reasonably practicable,
- propose future options for Hampton Pier,
- determine future public swing mooring and berth requirements within the harbour, and
- improve access for the needs of the 'off the beach' boating activities.

In addition to these on-water maritime considerations, the plan acknowledges the importance of on-land uses such as dog walking, beach recreation, bird life and the broader environmental values and sense of community and place the area provides. On land works are addressed in the Bayside City Council, Sandringham Foreshore Masterplan (April 2016) by Thompson Berrill Landscape Design.

4.3 Key Issues and Proposed Solutions

4.3.1 Navigational Safety

Sandringham Harbour provides a safe all-weather harbour to a diverse range of recreational, competitive and commercial boating and other water activities. There are six distinct zones of the harbour which require access to Port Phillip as shown in Figure 7.

- Ⓐ Western side of Sandringham Yacht Club marina
- Ⓑ Eastern side of Sandringham Yacht Club marina
- Ⓒ Swing moorings
- Ⓓ Hampton Pier and the private marina arm
- Ⓔ Travel lift/boat ramp/off-the-beach watercraft
- Ⓕ Guides and Scouts off-the-beach watercraft



Figure 7 – Sandringham Harbour Watercraft Zones (Aerial image: Nearmap 29/10/2021)

Zone A is the western internal channel within the marina and is constrained by the breakwater and marina arms. Sandringham Yacht Club manage this area and may consider reviewing the channel width against the Australian Standard - Marina Design.

Zone B to Zone E (east of the marina) entrance channel narrows to less than 20 metres. It is constrained by the swing mooring ground and Hampton Pier head and does not meet the requirements of the Australian Standard. In accordance with the Australian Standard - Marina Design the preferred minimum width of the entrance channel should be either 30 metres or 37.8 metres depending on which methodology is applied.

To comply with the Australian Standard and improve navigational safety, the entrance channel is proposed to be widened to 30 metres as shown in Figure 8. This will require relocating some of the existing swing moorings and removing the pier head. This will also benefit off-the-beach sailing activities to the west of the pier.

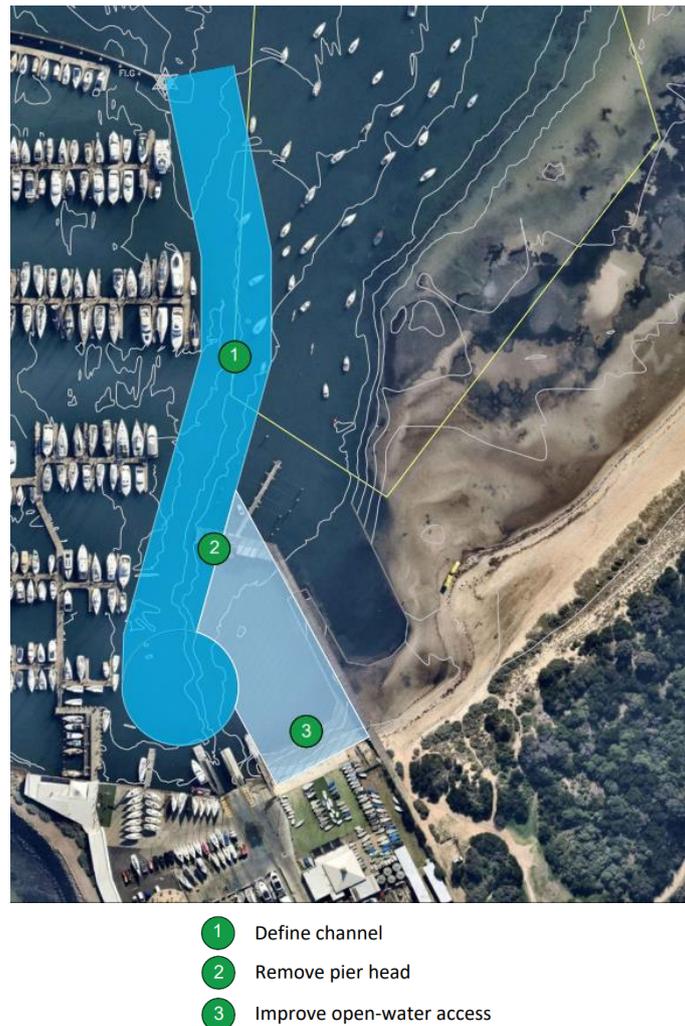


Figure 8 – Proposed Eastern Entrance Channel (Aerial image: Nearmap 29/10/2021)

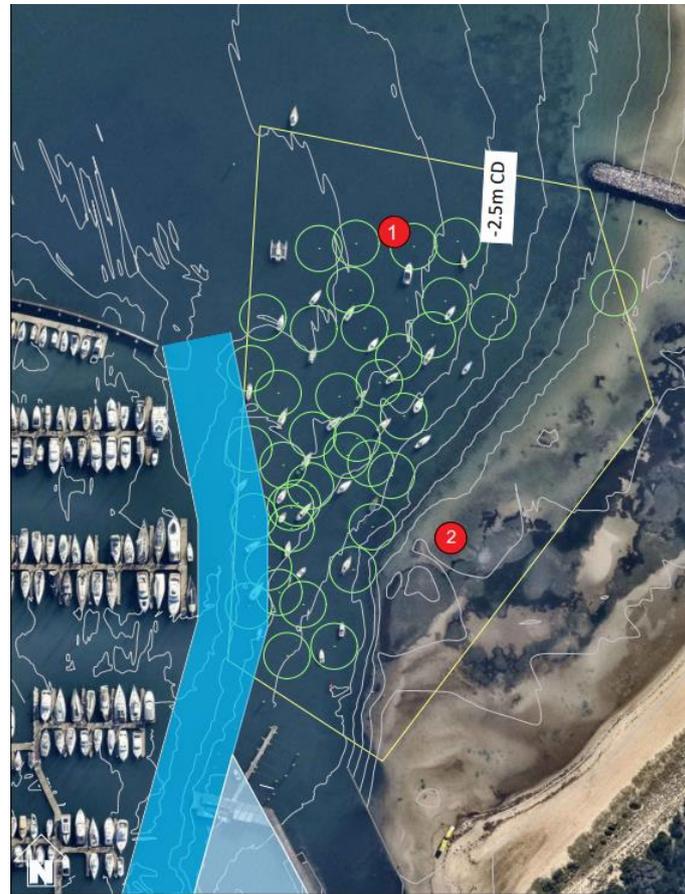
4.3.2 Mooring Ground

Swing moorings have been part of the harbour for many years, with the first swing mooring installed in the 1830s. Swing moorings offer a lower-cost option for people to store vessels on water. There are currently 47 permits for swing moorings which are managed by Parks Victoria.

There are challenges with the moorings in their current layout:

1. **Sedimentation** – sedimentation in the harbour has resulted in shallowing of the mooring ground. The Australian Standard suggests a draft of 1.8 metre for yachts of 10 metres in length, which when allowing for waves and vessel movement means that swing moorings should typically be located in water depths over 2.5 metres Chart Datum (low tide).
2. **Weather Exposure** – the moorings in the northern section of the mooring ground are more exposed to waves and wave reflection off the wave screen.
3. **Overlapping** – based on the GPS co-ordinates Parks Victoria has on record, the moorings are near each other and spaced such that swing areas appear to overlap. This is a poor layout and under certain conditions potentially unsafe and destructive to vessels.
4. **Channel Obstruction** – the western swing moorings encroach on the entrance channel, narrowing the access and impacting the safe navigation.

5. **Hampton Pier Closure** – access to the swing moorings require the use of small tenders, and the loss of tender berths on the pier has caused access issues for some mooring users. The low landing on the pier was used for vessel maintenance.



- 1 Exposure of northern moorings to westerly waves
- 2 Sedimentation encroaching onto swing mooring area

Figure 9 – Existing Mooring Ground (Aerial image: Nearmap 29/10/2021)

To address challenges the following improvements could be implemented:

1. Reduce the number of redundant moorings by cancelling permits for moorings / vessels which have not been used in recent times. (For example moorings that have not been used for six or more months without notification to Parks Victoria).
2. Remove or relocate moorings which obstruct the 30 metre wide entrance channel.
3. Re-grid the mooring ground to ensure the mooring areas do not overlap and the space is efficiently allocated.
4. Ensure greater spacing between moorings in the more exposed northern area.
5. Introduce environmentally friendly moorings to minimise disturbance of seagrasses.

A consolidated swing mooring arrangement is the recommended approach to address the challenges. To make navigation in the harbour safer through this approach, there is a necessary reduction of 10 to 12 swing moorings available in the area.

While options such as the use of mooring piles have been investigated, these are not considered a viable option from both a management and user pays perspective. They are costly to develop and likely to significantly increase the fee to mooring holders reducing access to low cost boating opportunities.



Figure 10 – Proposed Mooring Ground Arrangement grid (Aerial image: Nearmap 29/10/2021)

4.3.3 Hampton Pier

Parks Victoria engaged GML Heritage to prepare a report on the history of Hampton Pier. This investigation identified the various stages of the development of the pier, with the main straight section of the pier aligning with the original 1882 pier.

Hampton Pier was closed to pedestrian access to ensure public safety in June 2020. Inspections by maritime engineers in July 2019, and specialist divers in May 2020 found widespread damage to a majority of piles from marine borer activity. The loss of pile width was such an extent that it was determined the pier was failing and complete closure was recommended. Figure 11 shows the poor condition of the pier.



Figure 11 – Hampton Pier (July 2021)

The design life of a timber pier is generally about 30 to 50 years. Even with regular maintenance a timber pile will eventually reach a point where it needs to be replaced. The sheer number of failed and poor condition piles under Hampton Pier means the only viable option is to consider replacement of the pier. Although there is recognised community disappointment that the current pier has reached the end of its life, it does present the opportunity for rethinking the future of the pier and optimising the best design and technology advancements.

This includes:

- Ensuring the pier does not impede safe navigation, particularly for users from Hampton Sailing Club and the Sandringham Yacht Club off-the-beach fleets who currently need to sail around the pier head to access the open waters of Port Phillip.
- Incorporating a lower landing for public berthing.
- Providing all abilities accessible compliant facilities for boating access for the community.
- Maintaining the 1882 alignment and timber appearance of the pier to aid in interpretation of the history of the pier development.
- Improved access for emergency services on to the pier for training and critical incident response (paramedics, coast guard, water police).
- Increased carrying capacity to support increasing visitation, events.
- Improved public safety through modern safety railings.
- Environmental benefits through solar lighting.
- Raising the height of the pier to cater for future sea level rise.

Figure 12 presents two proposed options for the pier that address the above.

Option A includes rebuilding the pier to about the same length as the original 1882 pier with the addition of a floating pontoon to provide Disability Discrimination Act compliant water access. Similar pontoons have been installed by Parks Victoria (for example at Tooradin Jetty), and they include fixings and furniture to accommodate hoists to facilitate all abilities access to vessels. The pontoon could also be used for a variety of other users such as launching kayaks.

Option B is similar to Option A but includes a shorter pier length and an alternative pontoon arrangement.

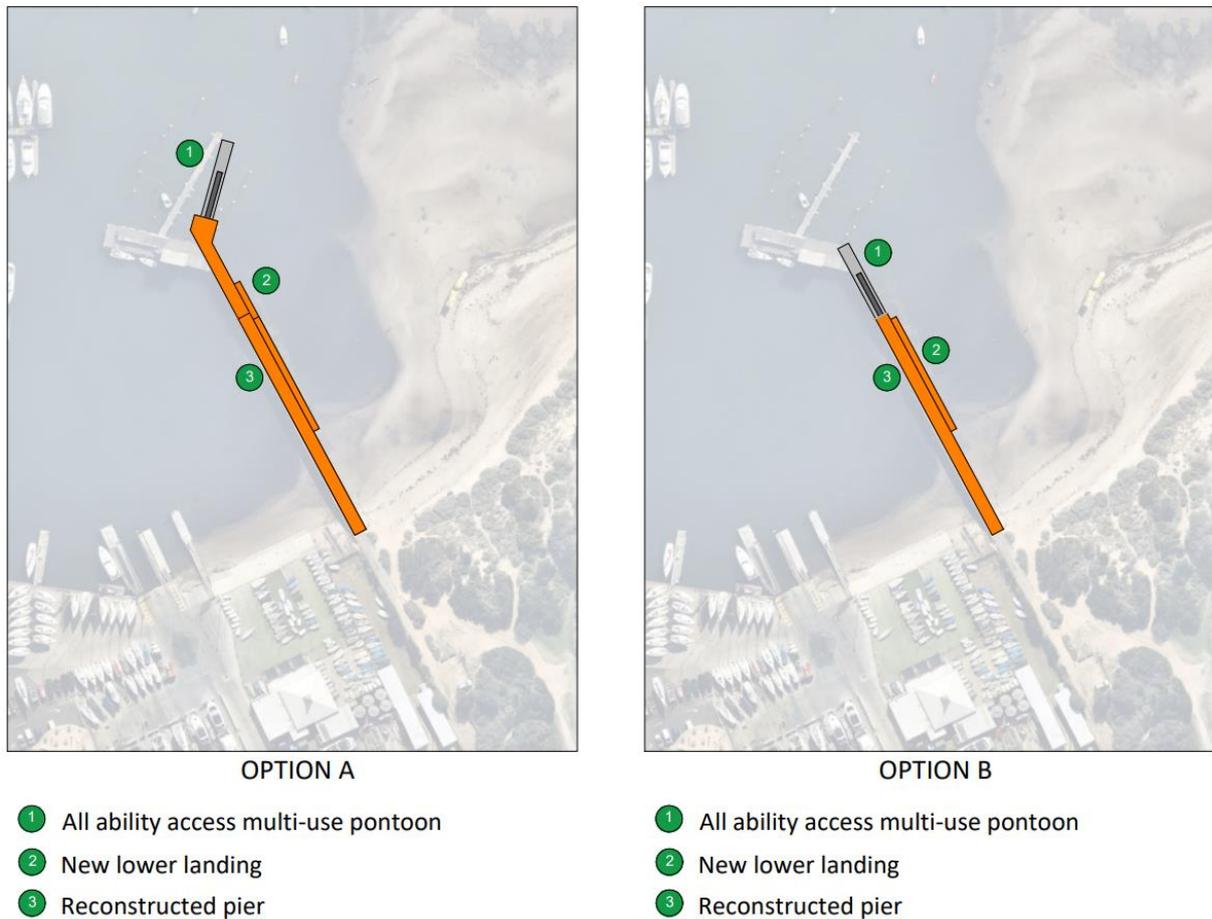


Figure 12 – Hampton Pier Options (Aerial image: Nearmap 29/10/2021)

When rebuilding the pier, it is likely there may be historical artefacts in the sediment under the pier given the pier’s long history at this location and require careful assessment, planning and management to protect these historical values. This could be managed through design of a modified pier alignment or during construction with practices that cause minimal seabed disturbance.

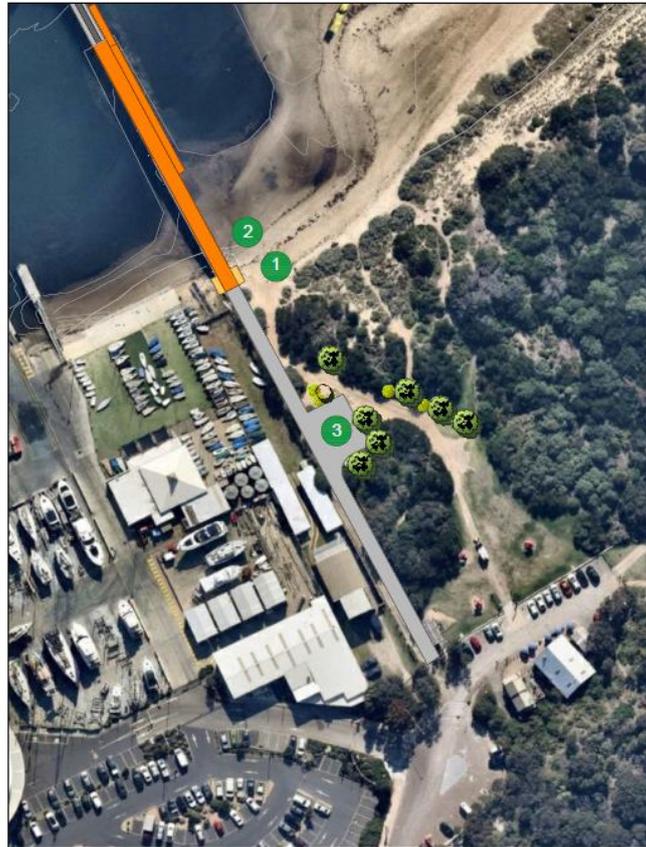
4.3.4 Pier Entrance and Accessibility

Planning for a future Hampton Pier offers the opportunity to address several issues raised by the stakeholder focus group participants, including tender storage to access swing moorings and limited facilities near beach for offloading kayaks, SUPs, etc.

The Sandringham Foreshore Masterplan (TBL, 2016) recommends that the land connection to Hampton Pier should be “retained for pedestrian and maintenance only vehicles access due to the lack of turnaround space”. Comments made in the focus groups highlighted the need for a drop off / pick up point near the water for kayaks and other watercraft equipment, disabled persons car parking close to the pier, and a vehicle turnaround near the start of the pier.

With this in mind, Figure 13 presents several features that could be incorporated, including:

- improved tender storage,
- improved vehicle turnaround space near pier entrance for passenger and equipment drop off and pick up, and
- minimum pier deck width of 4.2 metres to accommodate small maintenance vehicle and ambulance access, and built to meet permitted vehicles loading capacities.



- 1 Improved tender storage
- 2 Pier/beach access
- 3 Improve pier access and short term parking for offloading equipment

Figure 13 – Pier Entry and Accessibility Option (Aerial image: Nearmap 29/10/2021)

4.3.5 Sedimentation

A common issue highlighted by the stakeholders was siltation of the harbour over time. As discussed in sections 2.4 and 2.5, coastal processes acting on the site result in an accumulation of sediment and organic material in the protected waters of the harbour.

Parks Victoria undertakes several maintenance dredging activities to manage this issue and ensure continued safe boating access in accordance with its approved Bays Maintenance Dredging Long Term Environmental Management Plan (BMT 2018), including:

- Maintaining navigable depths (-2.0 metres CD) on the approach to and around Hampton Pier. Material dredged from this area is typically placed on the beach to the east of the pier where it can re-enter the natural longshore process.

- Maintaining the approach to Sandringham Harbour (that is, offshore of the northern end of the breakwater) to -3.5 metres CD. Material dredged from this area is typically placed offshore.

These activities are summarised in Figure 14. Dredging occurs infrequently with an estimated total volume of 15,000m³ over 10 years (BMT, 2018). In addition, Parks Victoria has dredged the decaying organic material from adjacent to the pier, as described in Section 2.4. Dredging was most recently completed within Sandringham Harbour in 2019.

This plan aims to minimise maintenance dredging requirements by optimising the location of moorings and infrastructure. The existing dredged channel is approximately 23 metres, and includes dredging around the pier head and fixed mooring area. A revised dredging design will need to be developed based on the final endorsed channel width and pier alignment.



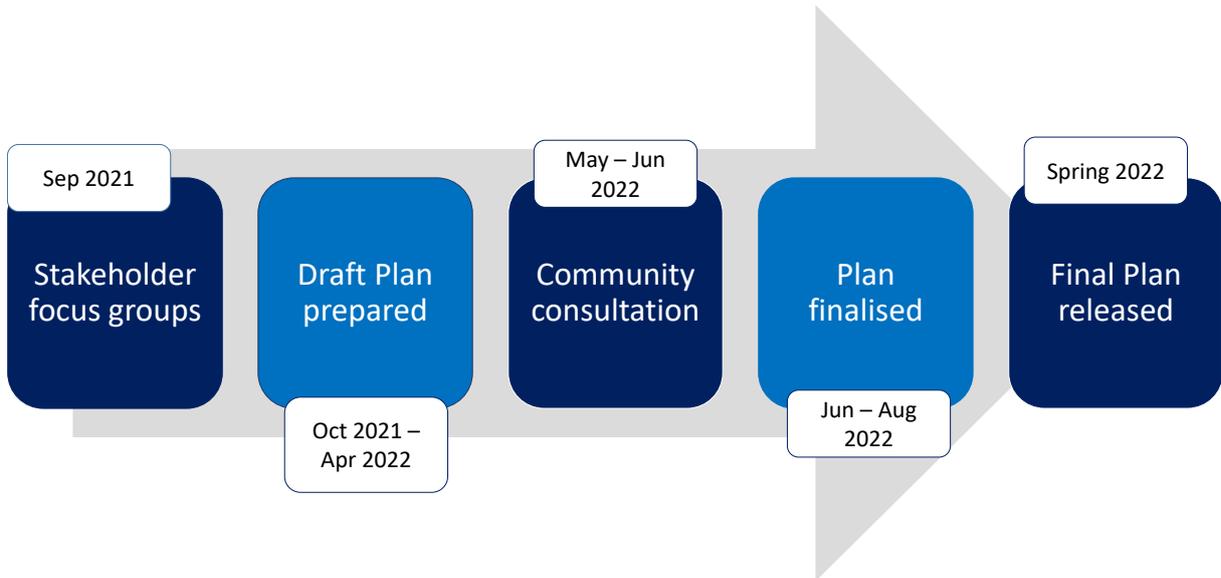
Figure 14 – Parks Victoria Existing Maintenance Dredging Activities (Aerial image: Nearmap 29/10/2021)

5 Implementation

5.1 Project Stages

Parks Victoria is considering ways to make Sandringham Harbour safer and more accessible for more people to enjoy in the future. The plan is focused on improvements to the maritime 'on-water' infrastructure. Key stakeholders, user groups and community are being engaged at key milestones to provide local insights and help inform the final plan.

The key stages to develop the plan are:



5.2 Next Steps

This draft Sandringham Harbour Local Ports Area Plan has been prepared for community feedback with comments to be sought through the Engage Victoria platform.

The comments received from stakeholders and community will help inform decisions in relation to issues such as:

1. realignment of the mooring grounds,
2. redesign of Hampton Pier including shore-based arrangements, and
3. implementation of wider eastern entrance channel.

Parks Victoria is committed to a future plan that delivers the best outcome for a safe, accessible and sustainable harbour that can be enjoyed by all for many years to come. The final plan will help inform the Victorian Government on future investment priorities to realise the long-term vision for the harbour and contribute to a thriving local ports network across Victoria.

6 References

The following documents have been reviewed and consulted in the development of this plan.

No.	Title	Author	Date
1	Hampton Beach Renourishment – Coastal Processes and Design Report	Cardno for DELWP	June 2017
2	Hampton Pier Structural Timber Condition Assessment – Portion A - Draft	Hyder for Parks Victoria	September 2011
3	Hampton Pier Diving Inspection	Professional Diving Services for Parks Victoria	May 2020
4	Sandringham Sand Management Scoping Study	Cardno for DELWP	March 2016
5	Sandringham Foreshore Masterplan	Thompson Berrill Landscape Design P/L for Bayside City Council	April 2016
6	Sandringham Foreshore Coastal Management Plan	Department of Sustainability and Environment (DSE)	December 2010
7	Hampton Pier – Background History	GML Heritage for Parks Victoria	November 2021
8	Port Phillip piers and jetties heritage information - Hampton Pier (Sandringham Jetty) Heritage Report	Robin Crocker and Associates	July 2004
9	Management options for sand and decaying vegetation in Sandringham Harbour	CEE P/L and AW Maritime P/L for Parks Victoria	April 2019
10	Bays Maintenance Dredging Program – Long Term Environmental Management Plan 2018 - 2027	BMT for Parks Victoria	February 2018
11	Recreational Boating Facilities Network	Central Coastal Board	February 2014
12	Bayside Coastal Management Plan	Urban Initiatives for Bayside City Council	November 0214
13	Changes on the Coastline of Port Phillip Bay	Eric Bird for the Office of the Environmental Monitor	March 2011
14	Moorings Review Issues Paper	Maritime Management Centre, Transport for NSW	March 2014
15	Review of Mooring Infrastructure Technology – Q0294 GCWA – Buoy Mooring Review	RPS APASA P/L for Gold Coast Waterways Authority	July 2014
16	The Coast of Victoria: The Shaping of Scenery	Eric Bird	1993
17	Sandringham Harbour Stakeholder Focus Groups Key Findings	Parks Victoria	September 2021
18	Sustainable Local Ports Framework	Department of Transport	2021

APPENDIX A – Stakeholder Focus Groups – Key Findings Report

Sandringham Harbour – Local Ports Area Plan Project

Stakeholder focus groups key findings

About the project

For over 100 years, Sandringham Harbour has been an iconic yachting and boating destination within Port Phillip and an important focal point for the community. More recently it has become a popular place for ‘off the beach’ boating activities such as kayaking and paddle boarding.

To ensure that it continues to be a safe and efficient maritime precinct and responds to changing community needs for many more years to come, Parks Victoria is developing the **Sandringham Harbour Local Ports Area Plan**. Consultants AW Maritime have been appointed to prepare the draft and final plan.

The plan, which focusses on the ‘on water’ components of the precinct, aims to:-

1. define the vessel channels,
2. propose a future for Hampton Pier,
3. provide direction regarding the future of public swing moorings and berths within the harbour,
4. identify and provide for existing and emerging off the beach boating activities.

A future ready plan will help guide Victorian Government local ports infrastructure investment priorities and provide a more sustainable approach to meeting economic, tourism and community needs.

Consultation overview

A project reference group (PRG) comprising representatives from Parks Victoria, Bayside City Council and Department of Transport will advise on the project.

Stakeholder and community input will be sought at key stages of the development of the plan as follows:-

- Stage 1: September 2021. Key stakeholders and user groups will be engaged to gather early information that will help inform the draft plan.
- Stage 2: First Quarter 2022. The broader community will be invited to view the draft plan and provide feedback to inform the final plan.

Parks Victoria
Phone 13 1963
www.parks.vic.gov.au

This document provides a summary of the outcomes of the Stage 1 stakeholder consultation conducted in September 2021. It does not reflect the agreed position of all participants or Parks Victoria, however provides a summary of points raised to be considered in the preparation of the draft plan. See Table 2 for the list of user groups that participated.

Key findings

Sandringham Harbour is a thriving precinct on Port Phillip. While the harbour has traditionally supported a strong sailing and motorised boating presence, the fast growing ‘off the beach’ non powered boating sector is also evident at this precinct.

Hundreds of vessels like yachts, dinghies, kayaks, canoes, personal watercraft (PWC), stand-up paddle boards (SUP’s), sail boards, tenders and motor boats call the harbour home using it as the key point of access to Port Phillip for recreational, competitive and commercial boating activities.

Focus group participants conveyed the value the environment and sense of community that the harbour and foreshore also supports. It provides for more than just boating; with dog walking, swimming, cold water walking, bird watching and quiet areas, and a network of paths to explore.

There is strong evidence of the clubs / tenants / interest groups working collaboratively to support each other in their activities creating a sense of community.

Hampton Pier condition, sedimentation and compliance with the Australian Standard for marina design are evident as key challenges for the harbour.

Further information

For further information visit the project page at parks.vic.gov.au/projects. For general enquiries email engage@parks.vic.gov.au or call Parks Victoria on **13 1963**.



Table 1 - Summary issues and suggested solutions

A successful pier will provide for	Managing coastal processes
<ul style="list-style-type: none"> • All abilities access. • A low landing for emergency vessels, paddle craft pick up and drop off, etc. • Open up the water area on the western side of the current pier for off the beach sailboat access. • Space for the Hampton Sailing Club rescue boat to moor (berth) at pier. • On shore storage and on water tender berths for swing mooring permit holders. • Passive activities – fishing, angling, sightseeing, sitting, wading. • Vehicle access for maintenance of vessels (key only access). • Provision of some private short-stay vessel berths with power, pump out and freshwater supply. 	<ul style="list-style-type: none"> • Impacts of sedimentation on harbour access. • Need to better understand the impact of the new groyne, breakwater and wave screen on coastal processes. • Acknowledgement that maintenance dredging is required to provide access to Hampton Pier and the Sandringham Yacht Club marina. • Manage the “black sludge”, and possible option to address the impacts of sedimentation on other harbour activities e.g. swing moorings, kayak and tender launching. • Consider marine environment impacts.
Supporting emerging other boating uses	Swing moorings – Coastal process impact and compliance with updated Australian Standard.
<ul style="list-style-type: none"> • Improved access and accommodation e.g. SUP, kayaking, ocean kayaking. • Drop off and pick up zones. • Storage for tenders and paddle craft (both on water and land). 	<ul style="list-style-type: none"> • Parks Victoria to undertake housekeeping – remove un-used moorings and un-seaworthy vessels to create space to reconfigure the mooring ground layout for the active swing mooring users. • Install fore and aft pile moorings to make more efficient use of the limited area on a full cost recovery basis. • Dredging the swing mooring area. Parks Victoria provided advice some 10 years ago that dredging to provide space for more swing moorings at Sandringham was not a feasible option. • Explore viability for wave protection measures to the north to create additional space for swing moorings. • Consider ways to provide more wave protection to the north to create additional space for swing moorings.



Detailed findings

Table 2: Current situation by each stakeholder user group

User group	Current situation
Black Rock and Sandringham Conservation Association (BRASCA)	BRASCA involvement in the harbour is around caring for the foreshore environment and vegetation planting on the breakwater and foreshore, not so much activities on the water. They observe a lot of yachting, juniors sailing, paddle boarding and sea scouts on the water and dog walking on the beach. They have observed less swimming or snorkelling within the harbour. The grassy area in front of the kiosk is valued open space.
East Coast Kayaking (ECK)	A Licensed Tour Operator (LTO). ECK provide many services such as kayak safety training, schools programs, hire, sales and repairs, outdoor education. They have thousands of participants every year. A concern is the loss of paddling space due to the siltation. Hampton Pier could be a great place for launching paddle craft for people with disabilities.
Hampton Life Saving Club (HLSC)	HLSC has observed that the pile with a ladder near the main wall of marina attracts young adults to swim to the pole, climb the ladder and leap off. This requires time to educate them of the risks and is a concern to the HLSC. Need to prevent people accessing the Aids to Navigation. Clubhouse is north of the Existing Conditions Maps and was built 25 years ago, and it lacks space for storage. Need for storage within the precinct.
Hampton Sailing Club (HSC)	Number 10 on plan. Boat storage on the northern side of the clubhouse (between Sandringham Yacht Club and Hampton Pier access), launch into pondage (to the west side of the pier), run races north of the breakwater. Need continued access to western side of pondage, but would also be useful to access boat launching on eastern side of the pier and give more space for off the beach launching. About 40 to 50 vessels stored at club, share some sailing events with Sandringham Yacht Club. Some kayaking members, swing mooring members store dinghy's in club. When pier was open, used to moor rescue boats on low landing. Sandringham Yacht Club is providing assistance to the club to store rescue boat due to pier closure.
Hampton Swing Mooring Association (HSMA)	Number 6 on the plan. Has 33 members who have swing moorings – within the 60 odd swing moorings within the harbour. Moorings inspected every 12 months as per the permit conditions. Require access to the pier for crew pick up and vessel maintenance. Of the 15 wet berths available on the existing pier eight HSMA members had vessels in the wet berths on the pier prior to pier closure. The other seven empty pens were unusable as the Parks Victoria pylons had broken away or were unusable. Mentioned a long waiting list (confirmed by Parks Victoria) for the wet berths proving the longstanding demand for these by the public. Tender situation - loss of tender berths on the pier is an issue, the rack for six tender all with permits is positive, however need more. Access difficult to get to boats, siltation main issue within the on pier tender area. Need to reinstate pier, 15 wet berths, vehicle access on pier (key access for maintenance of vessels only), low landing and wheelchair access. Believe there is an impact on sedimentation from the groyne and wave screen. There to assist each other, main focus is on getting the pier operational. The harbour is a bigger issue. Swing moorings are a social equity offering in particular for people to enjoy sailing without spending a lot of money. Siltation caused by breakwater and wave screen with the main benefit given to Sandringham Yacht Club at the cost of other users. Reported that letter to mooring holders in 2011 states Parks Victoria will be reducing the number of moorings available with a view to reconfiguring due congestion and changing environmental conditions. Noted certain types of boat owners like swing moorings. First swing mooring 1835. Pier used by elderly people, social connection e.g. advice on where to fish. Community all over Melbourne come to the site – over 250,000 harbour visitors annually. Observed the sedimentation of the harbour. It was noted that users could see the water from the Kiosk in 1984 and used to race sailboards in the harbour in water 2 to 4m deep. Groyne seems to have accelerated trapped sedimentation. Question whether the dredging had an impact on Pier. <i>Parks Victoria advised that the piles are in poor condition (deck replaced in 2002 on existing piles) dredging works kept clear of piles.</i> Observed that in a northerly wind, waves from the wave screen deflection causes issues for outer swing moorings. Co-ordinated petition regarding desire to save the pier with 5,000 signatures tabled in Parliament. Some of the comments regarding the pier: walking on the jetty, married on the jetty, read books, taught to fish, not just the boating use. Raised that Parks Victoria yet to return to build six more racks for swing mooring row boats (six already built).

Sandringham Anglers and Triathlon Club (SATC)	Number 7 on the plan. Most members fish away from the harbour, some fish from a kayak with 20 to 30 kayaks stored under the club. Kayakers launch into the harbour out the front of the club and fish out near the wave screen. Siltation as mentioned by swing mooring holders is making it harder to launch kayaks. Comment was made that there is a timber boat ramp buried under sand near the club. Looking to get more people into kayak fishing. Siltation impact on getting disabled people into vessels. Hampton Pier needs a low landing and infrastructure to assist disabled access into boats.
Sandringham Foreshore Association (SFA)	SFA's membership includes approx. 2,000 people (mostly local residents). A major role of Association (a not-for-profit), is to actively conserve and nurture the local natural environment especially along the Bayside foreshore - including indigenous flora, fauna, geology, palaeontology, geomorphology, and air-soil-water quality. SFA are active in mindful and constructive communication, with all of the main management authorities, and frequently volunteer their time and resources to promote knowledge and awareness of independent science-based, best-practice environmental management approaches. The unifying characteristic of SFA members is their high level of environmental awareness, but they are a diverse group, partaking in many different land and water-based activities such as nature walking, bird watching, dog-walking, and general enjoyment of Bayside's quiet and peaceful urban forests and foreshore park zones. SFA members also enjoy and value clean and healthy water in the bay for swimming, sea kayaking, SUP, cold water walking, including wheelchair access via the Hampton Pier. Many SFA members value accessing the harbour area via soft surface access points (sandy paths), such as the restricted, gated laneway to the Anglers Club / Sea Scout Club – which is a very special and quiet lane surrounded by a magical small forest of mixed native trees and shrubs, and indigenous flora and fauna – where children often play. SFA understands that the harbour's history includes 80 to 100 years of progressive silting-up because water here (waves and currents) enters a low energy environment sheltered by breakwaters / wave screens. Generally water will carry sand and silt particles of different weights, but as the energy of the water-currents progressively drops, only the finest particles are carried, hence fine silt makes its way into the calm harbour. This has happened over a very long time and is the reason the land in front of the Sandy Beach HQ is naturally reclaimed. Whilst the reclaimed land is a great benefit, other consequences are more challenging, such as the smelly mud (at periodic times), which is not clean for beach users and is a barrier to kayak paddlers accessing deeper water. As well, Sandringham Beach (mainly the southern end) experiences coastal / cliff erosion, and a net-loss of sand annually which becomes trapped in the harbour, unable to return by seasonally circulating currents. The existing rock breakwater was originally constructed with a 20 metre gap, which was later filled in due to a sand spit forming in the harbour. The breakwater, wave screen and newest groyne (north end of dog beach) provide protected water for moorings, however result in increased sedimentation which is impacting on area available for the swing moorings. There is a need to dredge routinely to keep water access open for sailing and reaching the pier. SFA question whether the new groyne has had an impact on increased sedimentation in the harbour and advocate coastal-geomorphological dynamic sediment modelling based on bathymetry data, and modern software. SFA question whether a permanent sand by-pass system to pump sand back south, from the harbour, could form part of a solution, or whether this would introduce too much fine and muddy material to the main Sandringham beach? Design of the repairs to the Hampton Pier should not attract sediment accumulation, and leave room for maintenance dredging. SFA strongly states that it would NOT support a new public boat ramp anywhere in the harbour, nor would it support the introduction of any infrastructure to promote motorised boating. SFA will support primarily non-motorised vessels on a basis similar to the current levels of activity (not significantly expanded) in the interests of respecting and maintaining quiet spaces for enjoying the natural environment – the reason why this area is so attractive and peaceful in the first place. SFA values preservation of this precious natural environment zone, above all else, and hence would strongly oppose ANY increased level of commercialisation and/or carparking, within the Sandringham Harbour zone.sa
Sandringham Yacht Club (SYC)	Numbers 2,4,5,10 on the plan. Holds a current lease over 6.5ha of the water, 360 berth marina, providing for recreational boating, competitive racing, 490 boats in the club (stored on water and on land), some boats are stored at home. The club provides access and egress to the water, sell fuel to visiting vessels, landing pontoon provide access for emergency services (as the pier is currently closed), repair and maintenance facility, bunch of other related activities. Racing – off the beach (number 4 on existing conditions plan) racecourses to west or north of harbour.

<p>Sandy Beach Kiosk & Watersports Centre (SBKW)</p>	<p>Number 9 on the plan. Been in operation since 1983 with the kiosk and water sports school. Building base is a 106-year-old former boatshed and has and continues to be a community meeting place. The dog beach became a focal point about 15 years ago. Water sports school offering wind surfing, SUP and kite boarding at Hampton Beach. Lots of schools come down for curriculum purposes. Convened peak body: Windsurfing Victoria and Kite Boarding Victoria – long relationship with community since 1983. Pandemic has highlighted the value of the conservation areas. Bird watching along the amazing dirt track so precious. Do not support a new public boat ramp in the harbour or any infrastructure to encourage motorised boating. Non-motorised vessel use (at current rate) is sustainable and promotes calm water environment suitable for families, pets and reduces noise levels.</p>
<p>Scouts Victoria State Sailing & Powerboating Team (Centre)</p>	<p>Number 8 on the Plan. The Centre has approximately 100 youth members who participate in various water-based activities on weekends from either association (Guides and Scouts) over the summer sailing season. That comes to around 5000 children participating in various activities of canoeing, swimming, paddle boarding (derigged windsurfers) in the shallow water adjacent to the beach and beach activities per year. That figure doesn't include around 250 leaders and parents supporting these activities over each season. Use three PWC's to provide safety cover for these activities as the outboard powered safety boats cannot operate safely in the shallow water due to sand compromising their engine cooling systems with resultant servicing expenses so would need the PWC's to be operationally acceptable if the area was designated PWC restricted. Centre has 8 Corsairs, 6 Pacers that are used for short sailing trips into the waters of the harbour as well as to the waters beyond. Those waters are also used for dinghy sailing training courses as well as for powerboat and safety boat training courses throughout the season utilising six outboard powered vessels covering IRB, RIB, Polycraft and Aluminium vessels all registered as safety boats with Marine Safety Victoria and all operators are appropriately licenced as well as holding Scout and Australian Sailing Safety boat qualifications. Provide Race Management vessels to Sandringham Yacht Club in consideration of the use of their launching ramps for our larger Safety boats during the season. There was a lagoon at the front of the beach when operator first started supporting the Centre some 35 years ago before the wave screen, but that has now silted up as has the red gum launching ramp outside the beach access shared with Sandringham Anglers. The Centre utilises a road registered tractor to launch and recover some of the sailing and safety vessels due to difficulties traversing the sand on the beach that the council has raked regularly to remove dangerous objects. Youth members from both associations enjoy the shallow at various stages of the tide.</p>
<p>SUP Victoria (SUPV)</p>	<p>Club has around 160 to 200 members, not all the users at this location. Sandringham Hampton / Half Moon Bay pod that paddles in the morning. Issues with silt, sludge and access to the pier. Suggested a launching site on the pier and the need to cater for SUP access/launching in the low light of the morning. Looking for a home base to have meetings and for storage. Northerly wind makes Sandringham not so good. People do it for fitness.</p>
<p>Victorian Ocean Sports Club (VOSC)</p>	<p>New club for ocean sea kayaking and SUP. Have a need for boat (kayak) storage. Has been established to meet the growth in kayak paddling on the bay. Do a lot of training in mornings and afternoons with an aim to hold races in the future. Big growth in kayaking as a sport and recreation.</p>



Detailed findings

Table 3: Summary of challenges, ideas and solutions provided by participants

	Challenges	Ideas and Solutions
Environmental considerations	<ul style="list-style-type: none"> Black sludge - acknowledged that it will come back. Sedimentation – questions raised regarding whether the groyne has increased the rate of sedimentation, and the implications on the swing mooring area. Near the head of the breakwater and Aids to Navigation (AtoN). Ongoing renourishment of the breakwater. “What do the fish want?” Protection of the foreshore vegetation. 	<ul style="list-style-type: none"> Coastal Engineers vs Coastal Geomorphologists views on the coastal processes differ and that we need to ensure that the right advice is obtained to ensure that impacts are well understood to inform decision making. Proposed groyne/breakwater could deflect some of the sand away from the harbour. This would require detailed numerical modelling to determine if it would achieve the desired outcome. Big problem – black sludge – issue has been addressed for the moment. New groyne built a few years ago and new beach is a positive outcome, very popular in summer. Maintenance dredging either by-pass system or mobile dredge.
Channel widths & swing moorings	<ul style="list-style-type: none"> Compliance with updated Australian Standard (AS3962:2020). Swing moorings face specific challenges with sedimentation encroaching into the mooring ground, un-suitable wave climate in the northern area of the swing mooring ground and the requirements for the access channel to comply with Australian Standards. Swing moorings being squeezed out by expansion of the dog beach and impact from north westerly winds wave screen deflection is a concern for swing moorings Moving swing moorings north may not be viable due to conditions. Improving safety of western boundary of swing mooring ground (especially in easterlies) – increasing use. 	<ul style="list-style-type: none"> Question whether we should keep providing for larger and larger vessels? Consider limit on vessel size within harbour. Suggested an offshore breakwater/bombora. Consider moving the swing moorings further out into the water space - will need sediment modelling / coastal processes and consideration of accessibility for tenders.
Hampton Pier	<ul style="list-style-type: none"> Poor condition of the existing piles. Impact of the current pier head on channel width. 	<ul style="list-style-type: none"> Priority is to resolve future of the pier. General support the idea of reconfiguration to provide greater access to the water on eastern side of the current pier. Design of the pier could be floating to make it easier to dredge in the future. Consider contemporary design options to provide safest access. Needs to be designed for dredging access. Enhance access to the water for boaters (paddle craft / all abilities) from the pier. Greater access for boating users on eastern side of pier. Consider enabling use by police and ambulance as a training venue e.g. low landing to practice lifting people out of vessels. Consult with emergency services to determine needs. Consider pontoons facing north east. Fishing opportunities and facilities on the pier. Potential to relocate the pier to the east.

Amenity and facilities	<ul style="list-style-type: none"> • Desire to store off the beach boating equipment and tenders (e.g. more tender racks). • Power boats – out board motors and jet skis (PWC's) not part of the harbour, better suited to Black Rock and Beaumaris Motor Yacht Squadron boat launching facilities. • Noted dog owners and people in the water / paddle boarders, mixing with motorised craft in a small area is a risk. • Availability of existing buildings. • Loss of land to car parking – vehicles drive through the area where people are sitting. Air pollution and noise pollution in the area. Oil spills around the harbour. • Lack of an area to unload SUPs and kayaks near the water. 	<ul style="list-style-type: none"> • Parking and more vehicles in the area creating congestion, noted the desire to bring car up to pier. • Suggested a drop off area for non-motorised vessels. • Consider reinstating boat ramp back out the front of the Angling Club (public access?). • Potential to remove some vegetation to enable access realignment provided there is an offset area.
Other	<ul style="list-style-type: none"> • Commercial sustainability. • Safety in the harbour. • Access to the beach / pier access track. • Bottle neck with people parking on grassed area near kiosk. • People accessing through locked gate (when open) and driving along dirt track /public parking at Anglers / Scout Centre 	<ul style="list-style-type: none"> • One of the few marine employment precincts around Port Phillip. Suggestion to recognise economic value and build on the precinct as a major employment precinct. • <u>Improve 'Safety'</u> in the safe harbour – pontoon for emergency, western corner of the swing mooring ground in easterlies. Improved education and signage for paddle craft users and swimmers.

IMPORTANT: This report is intended to provide a summary interpretation of the focus group attendee responses. It does not reflect the agreed position of all participants or Parks Victoria, but will be considered in the preparation of the draft Maritime Precinct Plan. Any landside matters raised such as parking, drop off areas, storage which are outside the scope of the project will be forward to Bayside City Council for consideration.

Plan 1: Existing conditions site plan

