

Cultural Heritage Due Diligence Assessment: Surf Beach and Sunderland Bay



DRAFT Report to Bass Coast Shire Council

Triskel Heritage Pty Ltd

Author: Andrew Orr

Date: 28 October 2022



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Cover Photo: Sunderland Bay, facing west

Acknowledgements

The author would like to thank the following people for their assistance with this project:

- Luke Bryant (Bass Coast Shire Council)
- Deborah Connelly (Triskel Heritage)
- Bill Cleeland and Mike Cleeland (Landowners)

Abbreviations



ACHRIS	Aboriginal Cultural Heritage Register and Information System
AV	Aboriginal Victoria (formerly Office of Aboriginal Affairs Victoria)
BLCAC	Bunurong Land Council Aboriginal Corporation
CHMP	Cultural Heritage Management Plan
DPC	Department of Premier and Cabinet
FPSR	First People State Relations (formerly Aboriginal Victoria)
HO	Heritage Overlay
HV	Heritage Victoria
ICOMOS	International Committee on Monuments and Sites
VAHR	Victorian Aboriginal Heritage Register

IMPORTANT NOTE: This report may contain information about the specific location of Aboriginal archaeological sites. Any specific locational information should be deleted from the report before it is released to the public, unless permission is obtained in writing to do so from the Registered Aboriginal Party.

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1. Introduction

Luke Bryant (Bass Coast Shire Council) has engaged Triskel Heritage Pty Ltd to prepare a due diligence report focusing on the need for a Cultural Heritage Management Plan for two related Activities, potential road and drainage upgrade works in Surf Beach / Sunderland Bay; and associated drainage outfalls improvements to the north and south. The Activity Area is located 82 km southeast of Melbourne CBD, on Phillip Island, in the Bass Coast Local Government Area.

1.1 Heritage Advisor

Andrew is a Heritage Advisor and Director of Triskel Heritage Pty Ltd based near Wonthaggi, Victoria. He holds an MA in Archaeology and has over 20 years' experience as an archaeologist; the last 18 years spent working fulltime as a Consultant and Heritage Advisor in Victoria. He has met the relevant criteria to be listed on the Heritage Advisors List maintained by Aboriginal Victoria and the Historical Archaeologist section of the Contractors and Consultants List maintained by Heritage Victoria.

1.2 The Activity Area

The Activity Area is located at Sunderland Bay and Surf Beach, Phillip Island (Map 1). It covers an area of 148ha, covering the residential subdivisions of Sunderland Bay and Surf Beach, along with sections of adjacent coastal reserve to the south and private land to the north (Figure 2). Under the *Aboriginal Heritage Regulations 2018*, parts of the Activity Area are covered by multiple areas of cultural heritage sensitivity (see Table 1):

TABLE 1: AREAS OF CULTURAL HERITAGE SENSITIVITY COVERING ACTIVITY AREA

Regulation No.	Regulation Name	Type of Feature
25	Registered cultural heritage place (x5)	Not applicable
26	Waterway	Swamp/Wetland
29	Declared Ramsar wetland	Not applicable
30	Coastal Crown land	Not applicable
31	Coastal land	Not applicable
34	Koo Wee Rup Plain	coastal lagoon deposits (Qg): generic
40	Dune	coastal dune deposits (Qdl1): generic



Map 1: Location of Activity Area

0 0.5 1 km



LGA: Bass Coast

(Basemap: OpenStreetMap)

Key:

 Activity Area

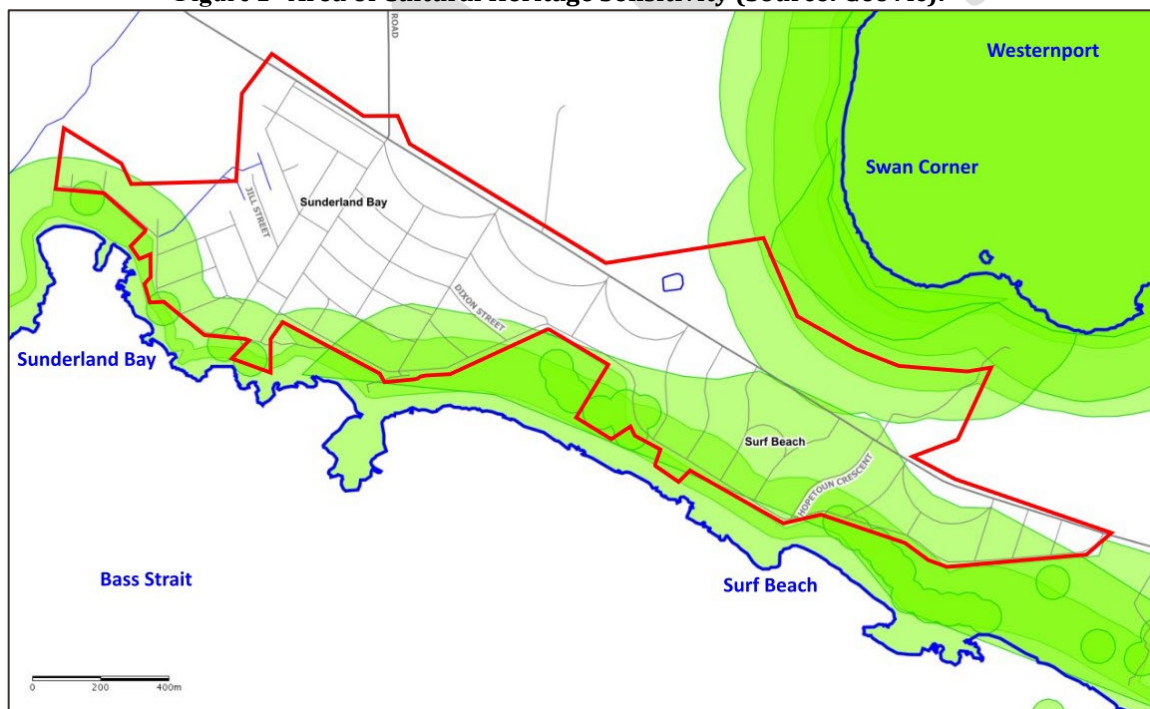
Triskel
HERITAGE

Map: Andrew Orr
Checked: Deb Connolly
Date: 23/08/2022

Figure 1 -Existing Conditions (Source: GoogleEarth).



Figure 2 -Area of Cultural Heritage Sensitivity (Source: GeoVic).



1.3 Activity Description

The Activity involves potential road and drainage upgrade works in Surf Beach / Sunderland Bay and associated drainage outfalls improvements to the north and south.

As part of the Bass Coast Council Urban Roads and Drainage Improvement Policy 2019, Surf Beach / Sunderland Bay are the next community to be considered for an upgrade to roads and drainage infrastructure. The road and drainage upgrade works would be undertaken as part of a special charge scheme. The wetlands to the north of Phillip Island Road may be undertaken as a separate drainage improvement project undertaken by Council. Therefore, this report assumes the project may be completed in two stages in that the wetland installation north of Phillip Island Road, may be a standalone project constructed separately to the road and drainage upgrade project (special charge scheme) within the urban area.

Concept design plans of road improvements are still being developed with the community. Works may involve the installation of kerb and channel, footpaths, underground drainage, upgrade of carparks, underground service modifications and construction / sealing of road pavement.

There may also be drainage improvements at the outfalls such as drainage channels, pipes, gross pollutant traps, erosion control devices and wetlands. It is likely that there will be three separate wetlands installed north of Phillip Island Road as part of the potential project and these will be located in existing drainage outfalls so catchment areas remain the same and some natural wetlands vegetation can be re-utilised as part of the project.

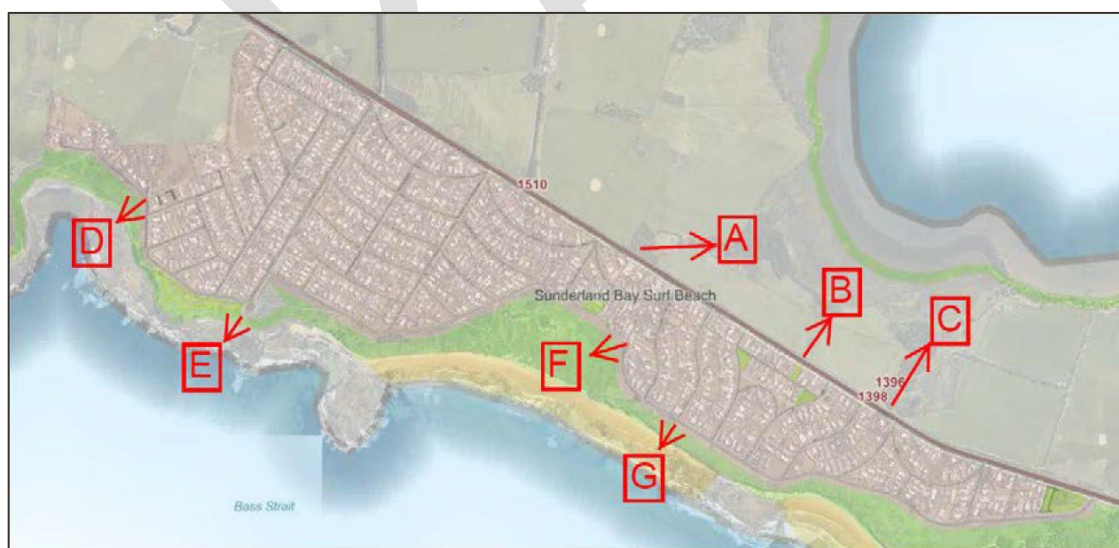


Figure 3 -Surface Geology (GeoVic 2022)

1.4 Aims

The purpose of the project is to undertake a Desktop Assessment and field inspection (from the road reserve only) to advise if a Cultural Heritage Management Plan will be required for the potential works and to what level the Plan may be required (standard or complex).

Note: This study does not constitute an archaeological survey or formal assessment under Aboriginal Victoria and Heritage Victoria guidelines.

1.5 Consultation

The Victorian Aboriginal Heritage Council appointed Bunurong Land Council Aboriginal Corporation as Registered Aboriginal Party with rights and responsibilities over Aboriginal cultural heritage within this region on 19 July 2017. This organisation has not been contacted for the current level of assessment.

2. Landscape and Environmental Context

2.1 Geographic Region

A 200m buffer from the Activity Area Boundary has been chosen as the geographic region relevant to the current Activity Area. This area covers the townships of Sunderland Bay and Surf Beach. This has been selected as it consists of a discrete area from which to gather information which can be used to develop a site prediction model that is relevant to the current Activity Area.

2.2 Geology and Landforms

Geological mapping (GeoVic 2021) shows the Activity Area as being within three different areas including 'Mornington Volcanic Group' (-Pum) (Orange), 'Coastal Dune Deposits' (Qdl1) (light green) and 'Alluvium' (Qa1) (light blue).

Mornington Volcanic Group (-Pum) (Orange) covers a section of the Activity Area in the north and west. It is described as basinite with lesser alkali basalt, nepheline hawaiite, nepheline mugearite, hawaiite, mugearite and nephelinite; lava flows, shallow intrusives and pyroclastics; minor interbedded fluvial sediments and lignite. The deposits date from the lutetian period and were formed in an eruptive volcanic plain environment.

Coastal Dune Deposits (Qdl1) (light green) cover a portion of the south and east. It consists of well, sorted, poorly consolidated, sand, silt, and clay from coastal dune and beach deposits, with some swamp deposits. The deposits date from the Holocene and were formed in a beach-ridge strand plain environment.

Alluvium (Qa1) (light blue) covers small sections in the northwest and northeast. It is described as variably sorted and rounded mostly unconsolidated gravel, sand and silt which includes alluvial floodplain and low terrace deposits. The deposits date to between the Pleistocene and Holocene, and were formed in channelled stream flow-fluvial conditions.

Locally available stone raw materials include coastal flint from nearby coastal beaches (Frankel et al 1989:21), and quartz which is ubiquitous in the landscape. Silcrete and quartzite are often associated with Haunted Hills Gravels formations the closest of which lies over 40km to the east (Geovic 2022). Silcrete, the most commonly used raw material, may have been brought from quarries outside the region, or may have been acquired from cobblestones from watercourses and/or shoreline contexts.

The Activity Area covers elevations between 10m and 20m. Geology mapping shows a small dam in the north and a drainage line in the west.



Figure 4 -Surface Geology (GeoVic 2022)

2.3 Flora and Fauna

Pre-1750 EVC mapping (Naturekit 2022) indicates that at the time of European contact, Swamp Scrub (EVC 53) would have covered the majority of the Activity Area, with Plains Grassy Woodland (EVC 55) present in the west and north, and a small section of Estuarine Wetlands/Estuarine Swamp Scrub mosaic (EVC 935) present in the northeast. Coastal Saltmarsh (EVC 9) clips the edge of the northeast boundary.

Swamp Scrub (EVC 53) is characterised as closed scrub to 8m dominated by Swamp Paperbark *Melaleuca ericifolia* or Woolly Tea-tree *Leptospermum lanigerum* with occasional eucalypts on alluvial deposits along streams or on sites that have poor drainage with higher nutrient availability. Where light penetrates through to the ground moss/lichen/liverwort or herbaceous ground cover can be seen while in drier areas ground cover will be grassy/herbaceous.

Plants from EVC 53 with known uses include:

- *Phragmites australis* (Common Reed): edible shoots, lightwood spear (Simpson 2017: 112).
- *Coprosma quadrifida* (Prickly Currant-bush): edible fruit (Simpson 2017: 158).

Plains Grassy Woodland (EVC 55) is characterised as open, eucalypt woodland to 15 m tall occurring on a number of geologies and soil types. Occupies poorly drained, fertile soils on flat or gently undulating plains at low elevations. The understorey consists of a few sparse shrubs over a species-rich grassy and herbaceous ground layer.

Plants from EVC 55 with known uses include:

- *Eucalyptus camaldulensis* (River Red-gum): Bark-sheeps for shelter, canoes, boomerangs, coolamons (Simpson 2017: 202).
- *Acacia melanoxylon* (Blackwood): edible seeds, hard tool wood, tanning, cordage (Simpson 2017: 22).
- *Dichondra repens* (Kidney Weed): Medicinal, edible herb, salad ingredients. (Simpson 2017: 48).
- *Themeda triandra* (Kangaroo Grass): Edible flowers, native grain, large harvest (Simpson 2017: 98)

Estuarine Wetlands/Estuarine Swamp Scrub mosaic (EVC 935) is often dominated by Swamp Paperbark *Melaleuca ericifolia* to 6m tall at the landward edge and dominated by graminoids and halophytic herbs at the ground layer. Found on the edge of estuarine waterbodies with intermediate salinity and poor drainage. Vegetation may vary depending on fluctuating salinity.

Plants from EVC 935 with known uses include:

- *Apium prostratum* (Sea Celery): Edible foliage, spicy seeds (Simpson 2017: 82)
- *Lomandra longifolia* (Matrush): Edible foliage, edible seeds, weaving foliage (Simpson 2017: 108)
- *Sarcocornia quinqueflora* (Samphire): Edible foliage, cropping (Simpson 2017: 124)

Land mammals such as echidna, possum, kangaroo and koalas would have been available as food resources, as would reptiles such as snakes and lizards. A wide range of bird species would also have been available in the local area. In the broader region, proximity to the coast would have provided a rich resource base for food.

2.4 Climate

The region has a mild temperate climate. February is the hottest month of the year with a mean maximum temperature of 25.2°C and July the coldest with 12°C (Bureau of Meteorology 2022). Rainfall in the region is significant, with about 1041mm of precipitation falling annually. Such climate conditions would not have acted as a constraint to past human occupation and activity within the Activity Area.

3. Aboriginal Cultural Heritage

3.1 Ethnographic and Contact History

It is acknowledged that the Traditional Owners are the most suitable entity to provide information on their own history.

The primary sources of this ethnohistory have been collated by Clark (1990) in his reconstruction of traditional language boundaries Victoria and more specifically to the region by Gaughwin (1981), Sullivan (1981) and Gaughwin & Sullivan (1984) in their discussion of Aboriginal boundaries and movement around Western Port. These sources include journal entries and government correspondence produced by early explorers, settlers and visitors, particularly William Thomas, the Assistant Protector of Aborigines.

Bun Wurrung Language Group

According to Clark, the Bun wurrung are part of the East Kulin Language area, which covered central Victoria from the east side of Port Phillip Bay north to the Murray River (Clark 1990:363-4 & Table 20). There are multiple alternate spellings, including 'Bunurong'. The Bun wurrung were largely coastal people living around Western Port Bay, Port Phillip Bay east of the Werribee River and the Mornington Peninsula. The Bun wurrung language group is divided into six clans (Clark 1990: 263-5).

Clark defines the clan as the 'land owning, land renewing and land-sustaining unit of Aboriginal society' (1990: 4). Similarly, Barwick defines the term as 'a named localised patrilineal descent group ... whose members had an historical, religious and genealogical identity' (Barwick 1984: 106). She notes that 'Clan territories were defined by ritual and economic responsibilities. Clan names were distinguished by the suffixes -balluk or -bulluck meaning a number of people and -(w)illam...meaning dwelling place' (Barwick 1984: 106). Barwick continues her discussion on clan organisation noting that:

Clan lands were exploited by residential groups (now termed bands) whose membership changed over time as nuclear families formed, aged and were replaced, and over the course of each year because the families and individuals instilled to make use of a specific clan estate were sometimes together (and) sometimes dispersed (Barwick 1984: 106).

Whilst the composition of a clan was fluid during an individual's lifetime, 'clan membership was fixed at birth as these were inherited from a person's father and retained ... until death' (Barwick 1984: 106).

Bun wurrung clans shared close ties with the neighbouring Woi wurrung people who occupied the present Melbourne area based on the Yarra River drainage basin. Their language was a variant of Woi wurrung, spoken in the country of Lohan, the creation spirit who made the land between the mouth of the Yarra and Wilson's Promontory.

Social Organisation

The Yallock Balug/Balluk (translated as 'River People') clan, who were part of the Bun Wurrung language group, were known to inhabit land around Bass River, Tooradin, Corinella (and most likely Phillip Island). Little else in the way of ethnographic material has been recorded for this clan, except that Wareendedolong was the Arweet in 1846, and guided Thomas during his October 1841 journey to Bass River (Clark 1990: 368).

The social organisation of the Bun wurrung was based on a moiety system that recognised clans and the individuals within them as belonging to one of two moieties; Waa (Crow) or Bunjil (Eaglehawk). The marriage system was based on these moieties and determined possible partners, which could only be of opposite moieties. In this way each generation of a clan married outside that clan (often to other language groups), reaffirming the religious, trade and social links between the separate groups. The Yallock Balug belonged to the Bunjil moiety (Clark 1990: 368)

Subsistence

There are few historic details on traditional Bun wurrung subsistence for the language group as a whole. It is likely that Bun wurrung patterns of settlement and movement were based on seasonal rounds following the changing availability of plant and animal resources. Indeed, Sullivan's (1981: 29-34) review of Thomas' papers showing the movement of Bun wurrung groups around the Mornington Peninsula indicates the Bun wurrung extensively exploited both coastal and inland areas around Westernport. Bun wurrung people maintained pathways, or travelling routes, by which they moved around their country on an annual basis.

Some studies indicate that large numbers of people would gather on a seasonal basis at campsites associated with specific and plentiful resources (Sullivan 1981: 30). Specifically, people are thought to have spent most of their time in coastal areas such as the Phillip Island during the summer, moving to inland areas including hills to the north during winter (Gaughwin and Sullivan 1984: 92). As part of this movement, larger groups would then split up into smaller foraging parties, which moved to specific localities as directed by the clan elders (Sullivan 1981: 31). Phillip Island would have supported a wide range of plants and animals that would have been exploited by Bun wurrung people. In particular, Gaughwin (1981: 26) describes Phillip Island as supplying two rich food resources; seals and Mutton birds (shearwaters). As Mutton birds only nest on Phillip Island from November through to April, this supports the hypothesis that Phillip Island was visited to exploit resources during the Summer months. Compton (in Murphy 2003) describes the importance of Mutton-bird as a resource to Bun wurrung people and notes San Remo as a place from which to view this resource base at Cape Woolamai. He describes how visitors; the Elderly and the uninitiated would wait at San Remo while selected younger individuals would swim and/or canoe to the island to collect eggs. Gaughwin & Sullivan (1984: 91) note the specific reference made by Thomas on the seasonal exploitation of such varied resources as eels from rivers, lyre-bird feathers from the hills and swan and pelican eggs from French Island. Given the ability to get to French Island by canoe, it is reasonable to assume accessibility to Phillip Island from the closest point at San Remo for the same purpose.

Post Contact

Gaughwin (1981: 45) and Sullivan (1981: 14) refer to accounts of Aboriginal people along the southern coast of Australia being taken by sealers in the early 1800s. This is supported in Gliddon's (1963: 144) description of Governor La Trobe's conversation with sealers who lived on Phillip Island in 1826 (Figure 5) and suggested they were on 'friendly' terms with the Aboriginal people of the area. Sullivan (1981: 14) notes that sealers on Phillip Island had a number of Aboriginal women living with them who had been taken by force from the mainland. It is also suggested that sealers are likely to have been the cause of early smallpox epidemics in Victoria that devastated the Aboriginal population. Further reference to diseases and sickness being the major cause of deaths among the Bun Wurrung people is made by Sullivan (1981: 18-19) along with murder and execution.

Stone artefacts and cultural shell deposits (shell midden) on both sides of the eastern entrance to Westernport attest to Aboriginal Activity in the area prior to European contact. A descriptive history of Phillip Island from the mid-twentieth century (Gliddon 1963) notes that animal bone, shell and stone were collected on the island during the 1900s. Also described are three blackwood artefacts (Figure 6) attributed to two members of the Western Port Tribe (Bunurong) that were employed by the McHaffie Brothers. These had been 'preserved by the McHaffie family for a hundred years...' before being presented to the Western Port Historical Society (Gliddon 1963: 143).



Figure 5 - 'Photograph of a Pen Drawing of First Dwelling of White People on Phillip Island' (Victorian Collections 2021).



**Figure 6 -Image of Blackwood boomerangs and leangle attributed to 'Western Port Tribe'.
(Gliddon 1963: near page 196).**

3.2 Previous Aboriginal Heritage Investigations

The Victorian Aboriginal Heritage Register (VAHR), maintained by FPSR, was accessed by Andrew Orr on 01/09/22 using access number #. A review of relevant reports and published works about Aboriginal cultural heritage is provided below. The VAHR is not a publicly accessible register, as it contains culturally sensitive information. Accessed information must be treated as confidential, in accordance with the requirements of the Act.

Of most relevance to the current Activity are the broadscale survey by Gaughwin (1981), CHMP 12228 (Murphy & Morris 2012) in the vicinity of Outfall E, and CHMP11891 (St George & Donati 2011) within the Activity Area at Outfall F.

Regional Studies

Massola (1959) prepared a paper suggesting an almost continuous line of middens along the sand dunes of Bass Strait and Westernport, including Phillip Island. He noted the abundance of larger middens in open, sandy places and lesser and smaller in areas of clay or dense tea-tree coverings.

Spillane (1973) prepared a paper on the Aboriginal Sites of Phillip Island. He noted the presence of shell middens on top of a cliff on the western extremity of Phillip Island and by a creek feeding into Westernport Bay in the northwest. He also describes a large shell midden in Cat Bay, including a range of artefacts such as knapped pebbles, axes, anvils, hammerstones, flakes and scrapers. He suggested that this site was one of the main campgrounds of the Bunurong people on Phillip Island and noted its location as protected from wind, with freshwater access and proximity to multiple food sources including shellfish, fish and breeding grounds of shearwaters, penguins and seals.

Although limited by the amount of available information at the time, Gaughwin's archaeological survey of the Western Port Catchment (**Gaughwin 1981**) and later related studies (**Gaughwin and Sullivan 1984**) provide useful information on the regional distribution of Aboriginal Places and provides the basis for later predictive models. Fieldwork involved the sample surveying of three relevant landforms that make up the catchment: coastal margins, upland hills and coastal plains. Although not clear from the report, it is evident from site cards that the southern coastal fringe at Sunderland Bay and Surf Beach within the current Activity Area was surveyed during fieldwork. Coastal chert, quartz and silcrete were recorded as being the most common raw material types. Artefacts consisted mainly of unmodified flakes and blades, with low densities of formal tools including microliths, thumbnail scrapers and Bondi points.

Gaughwin suggested that Aboriginal subsistence in the Western Port Catchment focused on the coastal plains, with a preference for high energy coastlines in proximity to rocky platforms. Distance to potable water was also identified as a significant factor. In areas along low energy coastlines such as Western Port Bay, it is suggested that campsites occurred on the crest of hills or hill slopes.

Goulding's (1988) report includes a synthesis of archaeological studies within the greater Melbourne study area which incorporates Westernport. She draws on Gaughwin's (1981) model that Aboriginal people of the region focused their subsistence

pursuits on inland areas around swamps and other water sources where resources were abundant and a preference for high energy coastlines in proximity to rocky platforms. Goulding identifies nine different site types within her study area, including Shell Middens, Artefact Scatters, Low Density Artefact Distributions (LDADs), Scarred Trees, Quarry sites, Rock Shelters, Hearths and Burials.

Freslov (1996) prepared a report to Aboriginal Affairs Victoria and the Australian Heritage Commission with the aim of providing a new coastal management model for Aboriginal cultural heritage, the identification of at-risk zones, a prioritised approach to management and a new model of significance assessment. The study area covered the entire coast of Victoria. Detailed advice was provided for general management strategies. None of the recommendations for specific sites has relevance to the current Activity Area.

Du Cross and Rhodes (1998) prepared a report on the archaeological sensitivities of the waterways and floodplains of Greater Melbourne which includes the Westernport region where the current Activity Area is located. They draw on Gaughwin's (1981) predictive model suggesting that areas within the vicinity of water sources including creeks and runoffs; swamps, lagoons and other ponded water; and springs and seepage are likely to be archaeologically sensitive. Potential site types included Artefact Scatters, LDADs, Shell Middens, Scarred Trees, Burials and Quarries.

Marshall & Schell (1998) carried out an Aboriginal archaeological desktop investigation into 36 Coast Action/Coast Care Grant applications across Victoria for the year 1998/99 including two kilometres of Phillip Island Coastline. These grant applications related to proposed conservation works with the potential to cause disturbance to Aboriginal archaeological deposits. The Desktop Assessment predicted the likely impacts of each project on Aboriginal cultural heritage materials within each of the 36 project areas and presented recommendations for future archaeological investigation.

Edmonds, Long & Schell (1999) prepared an Aboriginal archaeological impact assessment for Coast Action/Coastcare Applications at locations on the coastline east of Melbourne. The assessment consisted of ten rapid 'field inspections' and six more detailed 'field surveys' at selected locations between Sorrento and Lakes Entrance. The field assessment determined that all 16 1998/99 grant applications could proceed subject to various conditions. The most relevant area was the Silverleaves foreshore, on the northeast coast of Phillip Island.

Schell and Light (2001) carried out an Aboriginal archaeological desktop assessment for 66 Coast Action/Coast Care Grant Applications across Victoria in the year 2001/2002. A staged assessment approach was undertaken, with more detailed assessment carried out over grant application areas with potential to impact on Aboriginal cultural heritage. Desktop Assessment indicated that 51 applications needed to further consider Aboriginal cultural heritage issues. Of most relevance to the current Activity Area are applications for locations in Cowes and Newhaven.

CHMPS

CHMP 11891: St George & Donati (2011) prepared a CHMP for a proposed road upgrade along the Esplanade (Glen Street to Dunvegan Crescent), within the Activity Area, at Outfall F. Desktop Assessment revealed no previously recorded Aboriginal Places within the Activity Area; however, it did note eight Aboriginal Places recorded from within 200m and it was assessed as likely that there would be Aboriginal archaeological sites within the Activity Area. Standard Assessment did not locate any Aboriginal Places due to low ground surface visibility and disturbance associated with unsealed roads. Complex Assessment included the excavation of one 1m x 1m Test Pit and seven 0.5m x 0.5m Shovel Test Pits. Two landforms were identified described as a toe slope of a foreshore dune and an artificially flattened swale. The dune landform contained one context of mobile sand while the flattened swale consisted of silty clay overlying a basaltic clay, which sat atop a layer of clean loose sand and finally a base layer of basaltic clay. No new Aboriginal Places were identified.

CHMP 12228: Murphy & Morris (2012) prepared a CHMP for a proposed boardwalk at Sunderland Bay, Phillip Island, intersecting with the southern boundary of the current Activity Area. Desktop Assessment revealed no new Aboriginal Places from within the Activity Area. A predictive model for the Activity Area suggested that Artefact Scatters and Shell Middens would be the most likely site types. Standard Assessment revealed no new Aboriginal Places. The Activity Area lies 50-100m from cliff edges and no sand dunes remain. Given the proximity to the coast, it was elected to carry out a Complex Assessment. Excavation involved one 1m x 1m Test Pit and ten 0.4m x 0.4m Shovel Test Pits. The Test Pit revealed a sandy silt overlying clay to a depth of 15cm. No new Aboriginal Places were identified.

CHMP 13172: James-Lee (2014) prepared a CHMP for Stage 1 of the development of a conservation reserve within the Scenic Estate, Phillip Island Road, Surf Beach, located 110m east of the current Activity Area. The development included construction of a viewing platform, boardwalk, gravel walking paths and a car park. No previous Aboriginal Places had been recorded in the Activity Area. One Aboriginal Place was located during Standard Assessment (VAHR 7920-0285) comprising of a quartz bifacial core. Complex Assessment comprised of one Test Pit (1m x 1m) within the viewing platform footprint. Ten Shovel Test Pits (0.4m x 0.4m), including radials around VAHR 7920-0285, were excavated. One artefact was identified in a disturbed context. It was assessed that the platform construction would not impact on either of the artefact locations.

CHMP 15516: Barker (2018) prepared a CHMP for a proposed caravan park at 1285 Phillip Island Road, Newhaven, 210m east of the current Activity Area. Desktop Assessment indicated no Aboriginal Places had previously been recorded and no archaeological assessment had been undertaken within from the Activity Area. It was concluded that there was potential for archaeological deposits to be present in areas of minimal disturbance, most likely situated on the crests and upper slopes of intact sand dunes. Shell Middens and Artefact Scatters were predicted as the most likely site types. Due to low ground surface visibility, no Aboriginal Places were identified during Standard Assessment. An area of sensitivity was identified at the base of foreshore dunes and it was determined that subsurface testing was required. Subsurface testing

for the Complex Assessment consisted of one 1m x 1m Test Pit, 20 0.5m x 0.5m Shovel Test Pits and 10 2m x 1m Machine Trenches. Soils generally consisted of a humic silty loam overlying sandy contexts overlying clay, with one area of silty loam sitting straight atop clay. High levels of disturbance were encountered in the Test Pit. A single artefact was located in this highly disturbed context at a depth of 500mm and recorded as the LDAD VAHR 7920-0291.

3.3 Previously Recorded Aboriginal Places

The Victorian Aboriginal Heritage Register (VAHR), maintained by AV, was accessed by Andrew Orr through the online Aboriginal Cultural Heritage Register and Information System (ACHRIS). ACHRIS mapping shows five Aboriginal Places within the Activity Area and an additional 17 within 200m of the current Activity Area (see Map 3). The five Aboriginal Places mapped as being within the Activity Area are:

- VAHR 7920-0102, a 2m wide Shell Midden and Artefact Scatter currently mapped on ACHRIS as a dot point location Shell Midden within the property at 146 The Esplanade close to Outfall Area F
- VAHR 7920-0103, a 2m wide Shell Midden and Artefact Scatter currently mapped on ACHRIS as Shell Midden at a dot point location within "The Esplanade" Road Reserve at Outfall Area F.
- VAHR 7920-0104, a 17m wide Shell Midden and Artefact Scatter currently mapped on ACHRIS as Shell Midden at a dot point location within "The Esplanade" Road Reserve at Outfall Area F.
- VAHR 7920-0108, a 15m wide Shell Midden and Artefact Scatter currently mapped on ACHRIS as Shell Midden at a dot point location in coastal reserve within Outfall Area F.
- VAHR 7920-0110, a single artefact currently mapped on ACHRIS as Artefact Scatter at a dot point location in coastal reserve within Outfall Area E.

There are two preliminary reports mapped as being outside the Activity Area, but within the 200m buffer used for the region.. These are:

- Project 2020245/ 2021033, described as burnt clay, stone, earthworks at Sunderland Bay, west of Outfall D
- Project 2020024, described as shell midden and mapped as being offshore from Surf Beach, south of Hopetoun Crescent

There are no historical references or other site types listed on the VAHR from within the region.

Aboriginal Places within 200m

The VAHR search identified 22 Aboriginal Places made up of 32 components located within 200m of the Activity Area (see Map 2). The numbers of Place Types and their frequency are provided in Table 2 and Figure 7 below. Within the region, Shell Middens (58%) are the most common, followed by Artefact Scatters (42%). A full list of Aboriginal Places within the Geographic region is provided in Table 5. Included in this table is the distance to Activity Area, site contents according to the site card, and the landform on which the site is located.

TABLE 2: FREQUENCY OF PREVIOUSLY RECORDED VAHR ABORIGINAL PLACE COMPONENTS WITHIN 200M OF THE ACTIVITY AREA

Site Type	Number (n)	Percent (%)
Artefact Scatter	13	42%
Shell Midden	18	58%
Total	31	100%

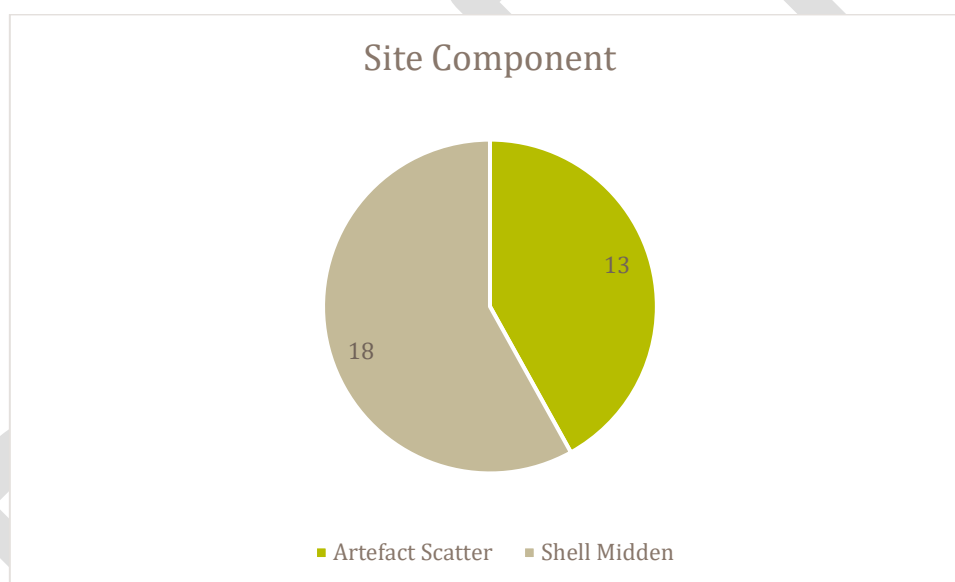


Figure 7 -Numbers of site components in the Region

TABLE 3: FULL LIST OF ABORIGINAL PLACES WITHIN 200M

VAHR	Site Name	Distance to AA	Site contents (site cards)	Landform	Comments
7920-0008	BASS COAST	124m south (end of Bruce Ave)	Shell Midden (size not specified); subinella, limpets, haliotis, dicathais	dunes	Mud map shows track and fence close by - current conditions show path in similar spot
7920-0091	FORREST CAVES 19	125m south (end of Bruce Ave)	Shell Midden, Artefact Scatter. 8m x 8m; rock platform species: subinella, cellana, brachidontes, abalone; unworked exotic stone (basalt) and hammerstones/pitted stones (unspecified)	Side or base of dune ridge	Current conditions show point next to path - not mentioned on mud map. Mud map is unclear (scale out)
7920-0092	FORREST CAVES 20	120m south (end of Bruce Ave)	Shell Midden, Artefact Scatter 14m x 50m; rock platform species: subinella, cellana, brachidontes, dicathais, austrocochlea, scutus; stone artefacts and hammerstones/pitted stones and with flint/chert, basalt and quartz, and charcoal	Side or base of dune ridge/ blowout	Small <i>in situ</i> section of 25cm deep, shows track to east on eastern boundary of site- this doesn't match current conditions (or point is wrong)
7920-0093	FORREST CAVES 21	70m south (east of Seafoam St)	Shell Midden, Artefact Scatter 5m x 10m; rock platform species: subinella, cellana, dicathais, austrocochlea; stone artefacts with flint/chert	Side or base of rise/ sandsheet	Unclear if mapped in correct position.
7920-0094	FORREST CAVES 22	130m south (end of Bruce Ave)	Shell Midden, Artefact Scatter 12m x 40m; rock platform species: cellana, dicathais, brachidontes. abalones, austrocochlea; stone artefacts and hammerstone/pitted stones with quartzite and basalt, and ochre	top/edge of rise, sandsheet	Point should be closer to beach

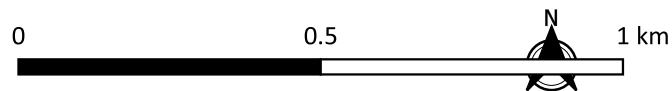
7920-0095	FORREST CAVES 23	120m southwest (between Bruce Ave and Beach St)	Shell Midden, Artefact Scatter 20m x 22m; rock platform species: subinella, cellana, dicathais, abalones, austrocochlea, scutus chiton; stone artefacts with flint/chert and basalt	Side or base of rise/blowout	Unclear if mapped in correct position.
7920-0096	FORREST CAVES 24	86m south (end of Beach St)	Shell Midden, Artefact Scatter 20m x 90m; rock platform species: subinella, cellana, dicathais, abalones, chiton; stone artefacts and hammerstone/pitted stones with quartz, quartzite and basalt	top/edge of cliff/bluff/bank, sandsheet	Series of small sites, 1 layer of shell approx 10-15cm deep. North arrow cannot be correct on mud map. Point could be closer to beach.
7920-0097	FORREST CAVES 25	19m south (end of Pine Ave)	Shell Midden, Artefact Scatter 20m x 50m; rock platform species: subinella, cellana, brachidontes, abalones; stone artefacts with basalt	top/edge of sandsheet/blowout	Point probably should be closer to beach, on slope face at beach
7920-0098	FORREST CAVES 26	32m southwest (end of Beach St)	Shell Midden, Artefact Scatter 16m x 25m; rock platform species: subinella, cellana, brachidontes, dicathais, abalones; stone artefacts with basalt	top/edge of sandsheet/blowout	Point should be closer to beach - mud map shows it adjoining beach, one shell deep <i>in situ</i> deposit
7920-0099	FORREST CAVES 27	63m southwest (end Beach St)	Shell Midden, Artefact Scatter 15m x 25m; rock platform species: subinella, cellana, brachidontes, abalones, austrocochlea; stone artefacts with quartz and basalt	top/edge of dune ridge/blowout	Point probably should be closer to beach
7920-0100	FORREST CAVES 28	on boundary (end Pine Ave)	Shell Midden, Artefact Scatter, possible Hearth 17m x 60m; rock platform species: subinella, cellana, brachidontes, dicathais, austrocochlea, chiton;	top/edge of dune ridge/blowout	Features on mud map are not consistent with those visible on historic aerial

			charcoal; stone artefacts and hammerstones/pitted stones with quartzite and basalt, and possible hearth with basalt pebbles		
7920-0101	SURF BEACH 1	5m west (west of Dunvegan cres)	Shell Midden 1.8m x 8m; rock platform species: subinella, cellana, brachidontes, dicathais, austrocochlea, chiton; charcoal	Side or base of dune ridge/ blowout	Point should be closer to beach. Mud map shows a 15cm in situ deposit
7920-0102	SURF BEACH 2	Inside AA	Shell Midden, Artefact Scatter 2m x 2m x 15cm; rock platform species: subinella, cellana, brachidontes, abalones, austrocochlea; stone artefacts with basalt	Side or base of dune ridge/ blowout	ACHRIS location is in back yard of house block (142 The Esplanade). Not consistent with site card.
7920-0103	SURF BEACH 3	Inside AA (west of Dunvegan cres)	Shell Midden, Artefact Scatter 5m x 2m x 15cm; rock platform species: subinella, cellana, brachidontes, abalones, austrocochlea; stone artefacts with basalt/greenstone	Side or base of dune ridge/ blowout	Unclear if mapped at correct location. Mud map with 7920-0102.
7920-0104	SURF BEACH 4	Inside AA (west of Dunvegan cres)	Shell Midden, Artefact Scatter 5m x 17m x 15cm; rock platform species: subinella, cellana, brachidontes, abalones, austrocochlea; stone artefacts with basalt/greenstone	top/edge of dune ridge/blowout	Unclear if mapped at correct location. Mud map with 7920-0102.
7920-0105	SURF BEACH 5	80m southwest (end of Glen St)	Shell Midden, Artefact Scatter 10 x 20m; rock platform species: subinella, cellana, brachidontes, abalones, austrocochlea; stone artefacts with flint/chert	top/edge of dune ridge	Point should be closer to beach

7920-0106	SURF BEACH 6	85m northwest (end of Glen St)	Shell Midden, Artefact Scatter 3m x 15m; rock platform species: subinella, cellana, brachidontes, abalones, austrocochlea; stone artefacts with basalt/ greenstone	Side or base of rise/ blowout	Unclear if mapped at correct location.
7920-0107	SURF BEACH 7	45m west (west of Dunvegan cres)	Shell Midden, Artefact Scatter 10m x 15m; rock platform species: subinella, abalones, austrocochlea, Mytilus; stone artefacts with basalt/greenstone and flint/chert	side of dune ridge/ blowout	Unclear if mapped at correct location.
7920-0108	SURF BEACH 8	Inside AA (west of Dunvegan cres)	Shell Midden, Artefact Scatter 8m x 15m; rock platform species: subinella, brachidontes, abalone, other limpets; stone artefacts with basalt/greenstone and flint/chert	Side or base of dune ridge/ blowout	Point probably should be closer to beach. Mud map indicate site is <i>in situ</i> .
7920-0109	SURF BEACH 9	19m south (End of Anglers Rd)	Shell Midden 5m x 15m; rock platform species: subinella, cellana, brachidontes, dicathais, abalones, austrocochlea	In sand drift at base of soil cliff on sandy beach	Point should be lower down slope. Mud map shows site <i>in situ</i>
7920-0110	SURF BEACH 10	Inside AA (end of Sunderland Bay Rd)	1 x flint artefact	Side of slope	Unclear if mapped at correct location.
7920-0111	SUNDERLAND BAY 1	16m south (end of Ozone Ct on beach track)	1 x flaked artefact	flat level land at base of slope beside beach	Point should be at base of slope, no mention of current track
7920-0112	SUNDERLAND BAY 2	16m southwest (west of Elane St)	1 x flaked artefact	cliff top east of bay	ACHRIS location at or close to site card location.



Map 2: Aboriginal Places in the Region



LGA: Bass Coast

(Basemap: OpenStreetMap)

Key:

- Activity Area
- Aboriginal Place (VAHR Number)
- 200m Buffer



Map: Andrew Orr
 Checked: Deb Connolly
 Date: 04/10/2022

3.4 Land Use History

Pre-Contact

Pre-Contact Indigenous use of the region is attested to by archaeological sites and oral histories as well as through references from the early non-Indigenous writers. Associated impacts included management of the landscape through “firestick farming” – burning of vegetation in certain areas to facilitate hunting and to change the composition of plant and animal species in an area (Gammage 2011).

Contact

The first official record of European contact in the region is the arrival of George Bass on 05 January 1798 (Cuttriss & Bird 2021:24). The second explorer to visit was Lt James Grant who cleared and planted out a large area on Churchill Island in an attempt to claim the area (PIDHS 2021). During the first three decades of the nineteenth century, sealers and whalers established temporary camps along the Gippsland coast, including at locations within Westernport. By 1826, a sealer camp on Philip Island was being occupied all year round. In this year, a military settlement was temporarily established in Rhyll, before being moved to Corinella, where it lasted a further 2 years (Horton & Morris 1983: 17-19).

Permanent European settlement commenced with the McHaffie brothers starting a pastoral run in 1842. The “McHaffie” run covered 2,560 acres (4 square miles) over the north of Phillip Island. This run was initially taken up by W. J. and J. D. McHaffie from Scotland and stayed under the McHaffie family name until being forfeited in 1872 (Spreadborough & Anderson 1983: 179). On first arrival the brothers cleared the island by setting fire to its scrub and releasing pigs to clear tracks through the dense tea tree which had recolonized much of the island and managed it as a pastoral run stocked with cattle and sheep (Gliddon 1963: 169). Deer, hare and other exotic species were also introduced (Gliddon 1963: 168) and would have impacted native vegetation and soil stability.

Jetties were built in Cowes and Rhyll in the early 1870s and trading vessels, mainly trading in timber, were established. A steam ferry service was installed from Phillip Island to Hasting in 1876, and a punt service was initiated from San Remo to Newhaven in 1912. The first bridge connecting the island to the mainland was opened in 1940. Residential subdivisions began development from 1890; however, this was mostly for holiday houses. Permanent residency of the island began to increase in the 1950s post bridge construction. Tourism on the island began in the late 1860s and saw a marked increase in the 1920s. The Grand Prix hosted its first race in 1928 and the Penguin Parade was established as a tourist attraction in 1955.

Activity Area

A timeline is provided below, based on information provided by (Cuttriss & Bird 2021) unless otherwise noted.

30,000+ years BP - contact: Seasonal visitation and land management through mosaic burns by Bunurong People.

1801-1820s: Sealers active on the Island at Cat Bay (Summerlands) and/or Rhyll.

1826: Temporary British fort established at Rhyll.

1840s: The McHaffie brothers cleared vegetation on Phillip Island by using fire and introduced stock to graze the land. Also introduced deer, quail, hares and Belgian rabbits. The Island commences use as a tourist destination.

1868-1870s: Land on Phillip Island opened for sale by ballot and settler start to arrive. First jetty built at Cowes. Chicory farming commences. Most of surviving timber cut to fuel chicory kilns. Grey rabbits introduced, causing widespread soil degradation.

1910: Marram grass introduced by John Cleeland and planted on sand dunes to stabilize soils.

1940s: First bridge constructed, linking Newhaven to San Remo. Over half of Phillip Island now open farmland.

1950s: New housing estates start to be built across the island, with mention of 'holiday houses' at Surf Beach. Increasing rates of construction over following decades.

Gravel mining in north of farmland area, with pits filled and additional fill added to raise land surface up as Mangrove retreats inland due to rising sea levels.

1970s: Historical aerial imagery (Figure 8 & 9) shows subdivisions in Surf Beach and Sunderland Bay

1980s: First Landcare group forms, increasing rate of revegetation.

2000 - present: Dam constructed at Outfall Area A. Farm was on mains water prior to this dam (Bill Cleeland pers comm.). pump station and associated infrastructure constructed at Outfall Area C.



Figure 8 - Aerial image detail 1975 Sunderland Bay (Trove 2022).

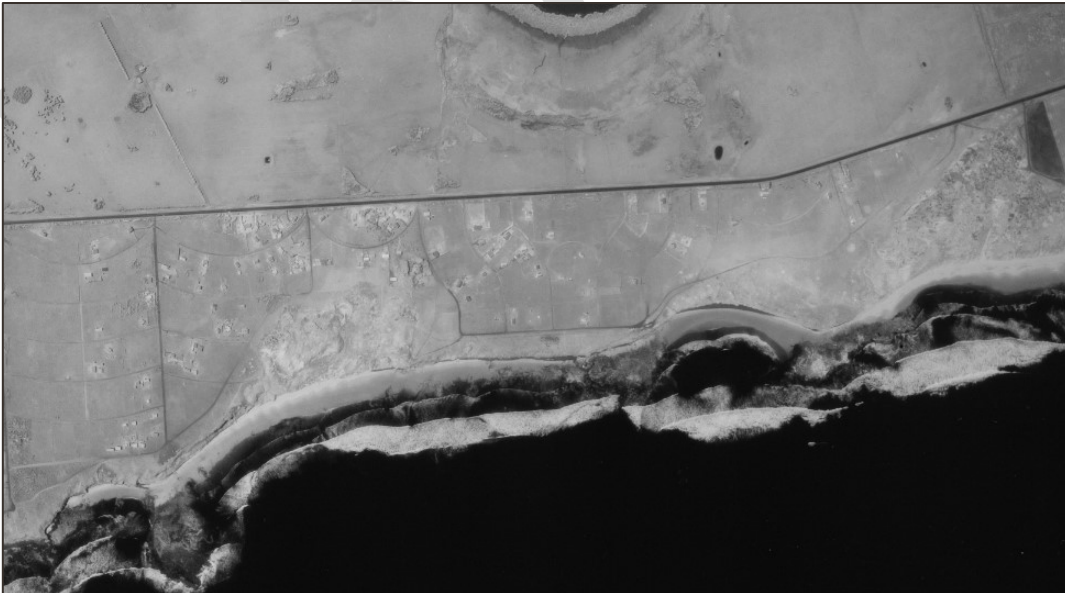


Figure 9 - Aerial image detail 1975 Surf Beach (Trove 2022).



Figure 10 - 2007 aerial image showing similar conditions to current (GoogleEarth 2022).



Figure 11 - 2021 aerial image, current conditions (GoogleEarth 2022).

3.5 Site Inspection

Visual inspection:

A brief visual inspection of the Activity Area was carried out over 2 visits. The south the Activity Area was inspected by Andrew Orr on 14 September 2022 from publicly accessible road reserves within the established subdivisions at Sunderland Bay and Surf Beach. The areas on private land in the north of the Activity Area were inspected on 04 October 2022 by Andrew Orr, accompanied by Luke Bryant (BCSC) and Bill and Mike Cleeland (Landowners). The purpose of the inspection was to discern general conditions - *this inspection does not constitute an archaeological survey.*

North of Phillip Island Road

Outfall Locations A – C and the proposed wetlands locations are located within privately owned farmland to the north of Phillip Island Road. General conditions comprised farmland with open paddocks and patches of regrowth.

Outfall A

Outfall A runs in an easterly direction through and existing large modern dam (Photo 1), past a natural spring to Swan Corner.

Outfall B

Outfall B runs in a northeasterly direction through low-lying tea tree vegetation and open paddock (Photo 2) to Swan Corner. This area does not appear to have undergone high levels of disturbance in the past.

Outfall C

Outfall C runs in a northeasterly direction through a disused dam, past a Westernport water facility, to Swan Corner. High levels of localised disturbance were evident at the disused dam and associated existing drains and tracks. and General conditions can be seen in Photo 3.

South of Phillip Island Road

Outfall Locations D - G and residential subdivisions at Sunderland Bay and Surf Beach are located to the south of Phillip Island Road. General conditions comprise constructed residential subdivisions with gravel roads, varying under and above ground drainage, and very few vacant blocks.

Outfall D

Outfall D runs in a southwesterly direction from the intersection of Zephyr Court and The Esplanade, across coastal reserve to Sunderland Bay. Current drainage follows existing piped and open drain sections (Photo 4).

Outfall E

Outfall E runs in a southwesterly direction from the end of Sunderland Bay Rd across coastal reserve to Sunderland Bay. High levels of disturbance were evident in the cliff-

top car park at the end of Sunderland bay which appears to be built on fill on the cliff-top. To the south of the car park, a path over raised sand dunes leads down to the beach (Photo 5).

Outfall F

Outfall F runs in a southwesterly direction from The Esplanade west of Dunvegan Crescent across coastal reserve to Surf Beach. Current drainage follows existing piped sections in the subdivision and an overgrown section of open drain leading across foreshore reserve that appears otherwise undisturbed (Photo 6).

Outfall G

Outfall G runs in a westerly direction from the end of Stradbroke Crescent across coastal reserve to Surf Beach. Current drainage follows existing piped sections in the subdivision (Photo 6). Due to heavy vegetation, it was not possible to determine whether there is an existing drain in the foreshore reserve (Photo 6).

In summary, despite evidence for high levels of localised disturbance over sections of the Activity Area, there is not evidence that would meet the criteria for Significant Ground Disturbance over the entire Activity Area as defined under the Aboriginal Heritage Regulations.



Photograph 1 - General view of dam in Outfall Area A. Facing southeast.



Photograph 2 - General view of Outfall Area B. Facing north.



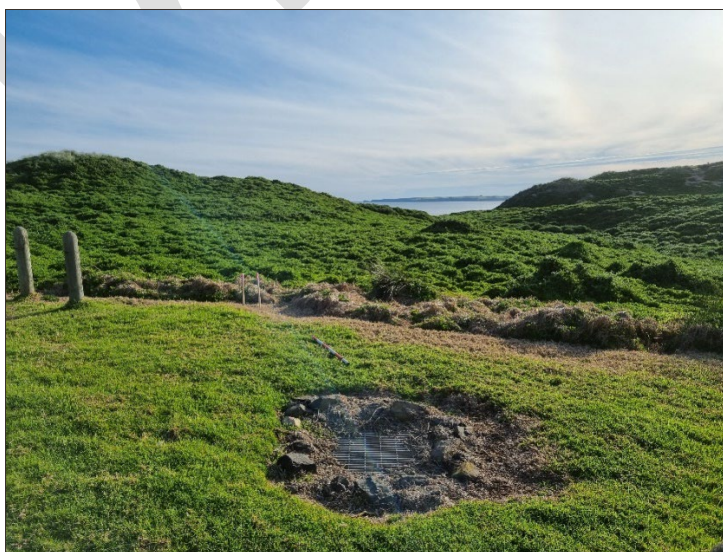
Photograph 3 - General view of Outfall Area C. Facing southeast.



Photograph 4 - General view of Outfall Area D. Facing southwest.



Photograph 5 - General view of Outfall Area E. Facing southwest.



Photograph 6 - General view of Outfall Area F. Facing west.



Photograph 7 - General view of Outfall Area G. Facing southwest.

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3.6 Conclusions

The Activity Area covers the subdivisions at Sunderland Bay and Surf Beach to the south of Phillip Island Road, and private farmland to the north.

Subdivisions: There have been high levels of localised disturbance within parts of the constructed subdivisions and it is assumed that works associated with this Activity will largely be confined to the road reserves. This Activity Area also includes sections of coastal reserve with high densities of Aboriginal Places containing stone and shell cultural heritage material.

Farmland: High levels of localised disturbance was observed at Outfalls A and C, chiefly in the form of dams and existing informal drainage infrastructure. No previous drainage works have been constructed at Outfall B and there was little evidence of disturbance here other than land clearance, agriculture, and, nearer the coast, gravel mining and filling up of land.

The following conclusions have been reached, based on desktop assessment and the inspection detailed above.

- There are currently five Aboriginal Places mapped on ACHRIS as being within the Activity Area (VAHR 7920-0102, VAHR 7920-0103, VAHR 7920-0104, VAHR 7920-0108 and VAHR 7920-0110).
- An additional 12 Aboriginal Places have been recorded from within 200m of the Activity Area.
- The majority of the Aboriginal Places referred to above were recorded over 40 years ago during a rapid regional survey with limited resources (Gaughwin 1981). Mapping information on site cards contains multiple errors, which have been compounded by errors when digitizing information for ACHRIS. Therefore, there is little certainty as to the actual location of Aboriginal Places at the time of recording. What is clear is that there is a high density of Aboriginal archaeological sites along the south of the Activity Area.
- The Aboriginal Place types recorded to date are confined to Shell Midden and/or stone artefacts sites (Artefact Scatters and LDADs). One of the preliminary reports from near the Activity Area varies from this in that it appears to refer to an earth feature/hearth.
- Significant ground disturbance is likely to have occurred within the current road formations within the subdivisions. It is not clear that such disturbance extends across the full width of the associated road reserves.
- High levels of disturbance have occurred over parts of the farmland to the north of Phillip Island Road, chiefly through the construction of two dams and associated existing infrastructure.
- Despite high levels of disturbance in recent decades, it remains likely that yet to be recorded cultural deposits of shell and stone material remain, most likely in the south of the Activity Area.
- the potential for Aboriginal cultural heritage to be present is high. This includes the potential for Aboriginal cultural heritage of very high significance (Ancestral Remains).

- The most likely form of cultural material to be present are cultural shell deposits (shell midden) and stone artefact sites (Artefact Scatters and/or Low Density Artefact Distributions) or in fully or partially disturbed contexts.
- Based on previous registrations, conditions in the dunes in the south of the Activity Area are conducive to the survival of organic material including bone and cultural shell material.
- Scarred Trees will not be present due to the lack of mature indigenous trees.

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4. Post-Contact Heritage

4.1 Historical Places

Heritage registers were accessed online through the ACHRIS database. Bass Coast Heritage Overlay was accessed through Victorian Planning Schemes online. There are no historical listings mapped as being within 2km the Activity Area

The closest listings on the Bass Coast Overlay are three Chicory Kilns (H0128) located at distances of between 300m and 3km to the west and northwest of the Activity Area.

The closest historical archaeological site listed on the Victorian Heritage Inventory are:

- Churchill Island (H7921-0002) located 3km to the east
- Churchill Island Sealer's Site (H7920-00014) located 3km to the east
- Wollomai House (H7920-0015) located 3.3km to the east.

Similarly, the closest historical places listed on the Victorian Heritage Registry are:

- Churchill Island (H1614) located 3km to the east
- Wollomai House (H0666) located 3.3km to the east.

There is no listing in the vicinity on the National Heritage List.

4.2 Previously Historical Investigations

Background research did not identify any previous historical archaeological investigations within the Activity Area.

4.3 Site Inspection

No structures, historical archaeological sites, or areas of historical archaeological potential were noted during the site inspection.

4.4 Conclusions

There are no known historical places listed within the Activity Area, and no areas of historical archaeological potential were identified during background research or the site inspection.

5. Legislative Requirements

5.1 Aboriginal Cultural Heritage

CHMP

Under the *Aboriginal Heritage Act 2006*, it is an offence to damage or destroy Cultural Heritage other than through approved processes, most commonly through the preparation of a Cultural Heritage Management Plan (CHMP).

Under the Act, a CHMP a must be prepared when:

- An Environmental Effects Statement is required;
- Directed by the Minister; or
- Required by the *Aboriginal Heritage Regulations 2018*

The Act also allows for the preparation of a Voluntary CHMP (Sec. 45), if the requirement for a Mandatory CHMP has not been triggered.

Regulation 7 of the *Aboriginal Heritage Regulations 2018* states that a CHMP is required (mandatory) under the regulations if:

- (a) all or part of the Activity Area for the activity is an area of cultural heritage sensitivity; and*
- (b) all or part of the activity is a high impact activity.*

Areas of cultural heritage sensitivity

The following regulations are applicable to parts of the Activity Area.

- Registered Cultural Heritage Place (reg.25)
- Waterway – swamp (reg. 26)
- Ramsar Wetland (reg. 29)
- Coastal Crown Land (reg.30)
- Coastal Land (reg.31)
- Koo wee rup Plain (reg. 34)
- Dune (reg. 40)

High Impact Activities

Details of the Activity are yet to be developed. Based on the previous projects, it is assumed that the Activity will involve some or all of the following high impact activities listed under the regulations:

- Construction of a roadway with a length exceeding 100 metres [reg. 47 (1) f]
- Construction of a walking track with a length exceeding 500 metres [reg. 47 (1) g]
- Construction of a bicycle track with a length exceeding 500 metres [reg. 47 (1) b]
- Reg 64 (1) b (xxvii): a utility installation, other than a telecommunications facility, if—

- (A) the works are a linear project that is the construction of an overhead power line with a length exceeding one kilometre or for which more than 10 power poles are erected; or
- (B) the works are a linear project that is the construction of a pipeline with a length exceeding 500 metres; or
- (C) the works are a linear project with a length exceeding 100 metres (other than the construction of an overhead power line or a pipeline with a pipe diameter not exceeding 150 millimetres); or
- (D) the works affect an area exceeding 25 square metres;

The brief describes two Activities:

1. road and drainage upgrade project
2. wetland installation north of Phillip Island Road

1. Road and drainage upgrade project

Works on, over or under an existing roadway are an exempt activity [reg. 15 (2)]. If all road construction is confined to existing road formations, then construction of an upgraded road network at Sunderland bay and Surf Beach is technically not a high impact activity. However, other elements of the Activity, are likely to be high impact activities. e.g. footpaths [reg 47 (1) G] or underground drainage [Reg 64 (1) b (xxvii)]. As there are multiple areas of cultural heritage sensitivity both triggers are likely to be met, and **preparation of an Aboriginal Cultural Heritage Management Plan (CHMP) is required for this Activity under the Regulations.** Further to this, registered Aboriginal Places are located within the Activity Area. It is an offence to cause harm to an Aboriginal Place other than through an approved process such as preparation of a CHMP.

2. Wetland installation north of Phillip Island Road

Little detail is available in relation to wetland installation north of Phillip Island Road. It is assumed proposed works would involve utility installation (drainage) works affecting an area exceeding 25 square metres. Therefore the works are a high impact activity [Reg 64 (1) b (xxvii) (D)]. Outfall Areas B and C are covered by Areas of cultural heritage sensitivity. The dams at Outfall areas A and C have been subject to Significant Ground Disturbance, however associated works are likely to extend into areas that remain areas of cultural heritage sensitivity. On this basis, this Activity Area includes multiple areas of cultural heritage sensitivity and both triggers are met. Therefore **preparation of an Aboriginal Cultural Heritage Management Plan (CHMP) is required for this Activity under the Regulations.**

Significant Ground Disturbance

There have been high levels of localised disturbance at each of the two Activity Areas. However, given the scale of the projects it does not appear that prior ground disturbance covers the entire footprint for all proposed works. Therefore, it would not meet the high burden of proof required to demonstrate significant ground disturbance as defined under the regulations: i.e. it is not be feasible to prove full disturbance of all topsoil by machine within the full extent of all proposed works.

5.2 Historical Cultural Heritage

The Victorian *Heritage Act 2017* details the statutory requirements for protecting non-Indigenous (historic) cultural heritage. The Act is administered by Heritage Victoria and has been subject to a recent review leading to the enactment of the current legislation which came into operation on 1 November 2017.

The Act identifies and protects heritage places and objects that are of significance to Victoria, including:

- historic archaeological sites and artefacts
- historic buildings, structures and precincts
- gardens, trees and cemeteries
- cultural landscapes
- shipwrecks and artefacts
- significant objects
- objects associated with a place.

Archaeological heritage is also protected by the Heritage Act through protection of significant archaeological places and objects greater than 75 years old, and through the Victorian Heritage Inventory of historical archaeological sites, as well as historic shipwrecks.

There is no requirement under the *Heritage Act 2017* to undertake an assessment of Historical heritage of the subject area. Please note: If suspected historical archaeological relic(s) are discovered during works, Heritage Victoria should be consulted for further advice.

6. Recommendations

6.1 Recommendation 1: Aboriginal CHMP

Advice

It is my understanding that **preparation of a mandatory CHMP for the proposed Activities is required under the *Aboriginal Heritage Regulations 2018*.**

Activity Area 1. Road and drainage upgrade project

The proposed works are a high impact Activity and this Activity Area includes multiple areas of cultural heritage sensitivity. Therefore both triggers are met, and **preparation of an Aboriginal Cultural Heritage Management Plan (CHMP) is required for this Activity under the Regulations.**

Further to this, there is a high risk of harming Aboriginal cultural heritage during the course of this Activity. It is an offence to cause harm to an Aboriginal Place other than through an approved process such as preparation of a CHMP.

Activity Area 2: Wetland installation north of Phillip Island Road

The proposed works are a high impact Activity and this Activity Area includes multiple areas of cultural heritage sensitivity. Therefore both triggers are met, and **preparation of an Aboriginal Cultural Heritage Management Plan (CHMP) is required for this Activity under the Regulations.**

6.2 Recommendation 2: Historical Heritage

Advice

There is no requirement under the *Heritage Act 2017* to undertake an assessment of Historical heritage of the subject area.

Please note: If suspected historical archaeological relic(s) are discovered during works, Heritage Victoria should be consulted for further advice.

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