



Chapter 13

Heritage

This chapter discusses the potential impacts on Aboriginal cultural heritage and historic heritage associated with the construction and operation of the Viva Energy Gas Terminal Project (the project).

An Aboriginal cultural heritage impact assessment and a historic heritage impact assessment have been prepared for the project and are provided in Technical Report O: *Aboriginal cultural heritage impact assessment* and Technical Report P: *Historic heritage impact assessment*. This chapter summarises the outcomes of these assessments.



Overview

Ground disturbance works associated with construction of the project, such as trenching and excavation, have the potential to result in damage to or destruction of historical archaeological sites or maritime heritage places and Aboriginal cultural heritage places and values.

One new Aboriginal place was identified in the activity area during the complex assessment undertaken as part of the Aboriginal cultural heritage impact assessment and preparation of the project Cultural Heritage Management Plan (CHMP) (CHMP 17816). No ground disturbing works are proposed to occur within the Aboriginal place, with residual impacts on known Aboriginal cultural heritage considered negligible following implementation of the CHMP and its associated management conditions. It is highly unlikely that unknown Aboriginal cultural heritage places would be present within the activity area, both onshore and offshore.

There are no known historical archaeological sites or maritime heritage places located within the activity area or within proximity to the activity area. Examination of historical maps and aerial photographs suggests that it is unlikely that any unrecorded historical places would be present, as these sources do not contain any indication of the presence of historical places. Due to the activity area having a long history of substantial disturbance, including offshore dredging, it is highly unlikely that unknown and unrecorded historical archaeological sites or maritime heritage places would be present. Unexpected finds protocols would be implemented in the unlikely event that historical archaeological sites, maritime heritage places or items are encountered during project construction works.

EES evaluation objective

The scoping requirements provided by the Minister for Planning for the project set out the specific environmental matters to be investigated and documented in the project's Environment Effects Statement (EES), which informs the scope of the EES technical studies. The Minister identified heritage as a secondary area of assessment as potential impacts may be of lesser significance for the EES.

The following evaluation objective is relevant to both the Aboriginal cultural heritage and historic heritage impact assessments:

Cultural heritage

To avoid or minimise adverse effects on Aboriginal and historic cultural heritage.

Technical Report O: *Aboriginal cultural heritage impact assessment* and Technical Report P: *Historic heritage impact assessment* developed to support the project EES provide more detailed information on the investigations and impact assessments conducted in response to the EES scoping requirements.

Methodology

To determine potential impacts on heritage from the project, the following approach was adopted for the Aboriginal cultural heritage and historic heritage impact assessments:

- Establishing the study area (activity area) and understanding its existing Aboriginal cultural heritage and historic heritage conditions and environmental setting



- A review of relevant heritage registers, lists and databases, including the Victorian Aboriginal Heritage Register (VAHR), Victorian Heritage Register and Inventory, the National and Commonwealth Heritage Lists, the Australasian Underwater Cultural Heritage Database (AUCHD) and the Greater Geelong City Council Planning Scheme heritage overlay
- A literature review, including previous archaeological reports, and historic aerial photography to identify any land use history of relevance to the activity area
- A desktop assessment to identify the known environmental, ethnohistorical, historical and archaeological context of the activity area and the surrounding region prior to any CHMP fieldwork site inspections as a part of the CHMP standard assessment archaeological survey to identify surface Aboriginal cultural heritage places and determine areas of archaeological potential
- Further site investigations and excavations as a part of the CHMP complex assessment in areas of archaeological sensitivity identified in the standard assessment to determine if Aboriginal cultural places are present within the activity area
- A risk screening at the outset of the project using the methodology outlined in Chapter 7: *Assessment framework* to identify potential risks to heritage matters and inform the impact assessment and the level of investigation required
- Assessment of potential Aboriginal cultural heritage and historic heritage impacts during construction and operation of the project
- Development of mitigation measures (MM) in response to identified potential impacts focused on elimination or avoidance of the potential impact where possible or mitigation through measures incorporated into design, construction and operation
- Evaluation of the residual environmental impacts which are those remaining once mitigation has been implemented.

What is a complex and standard assessment?

Standard and complex assessments form part of the CHMP process. A CHMP is mandatory under the *Aboriginal Heritage Act 2006 (Vic)* if the preparation of an EES is required.

A standard assessment is undertaken following the completion of a desktop assessment. Standard assessments typically involve a ground survey to try and identify any Aboriginal cultural heritage or areas of Aboriginal archaeological sensitivity that may be present.

Based on the results of the standard assessment, a complex assessment may be undertaken if it is considered likely for Aboriginal cultural heritage to be present. A complex assessment typically involves subsurface testing and excavation to identify any Aboriginal cultural heritage material.

Study area

The study area (hereafter referred to as the 'activity area') for the Aboriginal cultural heritage and historic heritage impact assessments is approximately 41.7 hectares (ha) in size and comprises the onshore and offshore components of the project area.

The onshore component of the activity area comprises approximately 5.5 kilometres of generally linear land that follows the proposed gas pipeline route, extending from the landside of Refinery Pier, to the tie-in facility at Lara City Gate. The offshore component comprises approximately one kilometre of the existing pier and proposed new pier arm where the FSRU would be continuously moored, the proposed berth and turning basin dredged area, the proposed temporary loadout facility and laydown area at Lascelles Wharf and the proposed seawater transfer pipe, as shown in **Figure 13-1**.

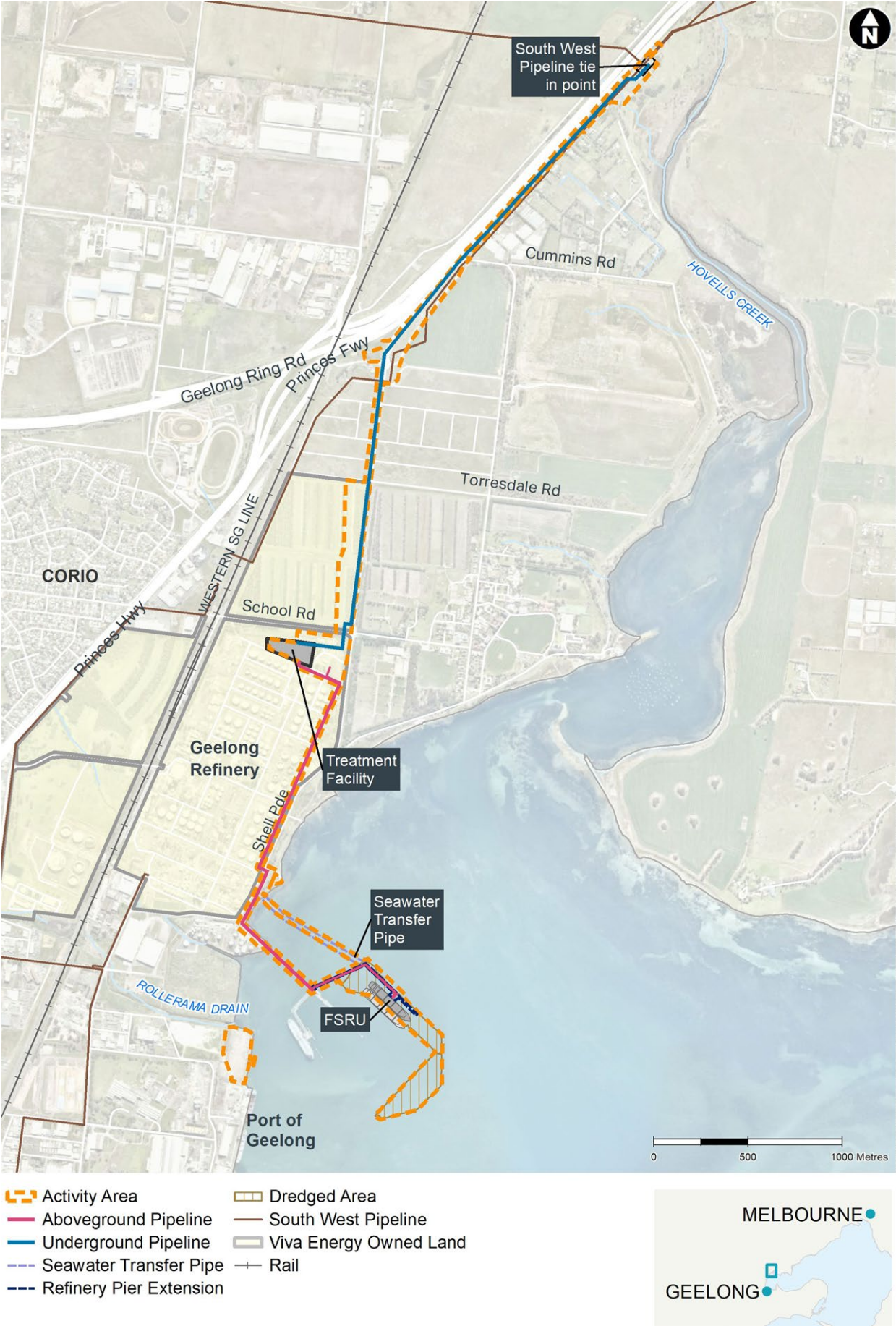


Figure 13-1 Heritage activity area

13.1 Aboriginal cultural heritage

Aboriginal cultural heritage places and values are of high significance to the community, particularly the Aboriginal community. Aboriginal places, objects and Aboriginal ancestral remains provide a tangible connection to the past, provide a sense of interconnectedness between past generations and present Traditional Owners, and facilitate a sense of belonging to the landscape. Underpinning these physical elements of Aboriginal cultural heritage are the intangible places where physical evidence of past cultural activities may not be present but hold spiritual significance.

The *Aboriginal Heritage Act 2006 (Vic)* ('Aboriginal Heritage Act') provides protection for all Aboriginal cultural heritage places and objects. Under Section 49 of the Aboriginal Heritage Act, a Cultural Heritage Management Plan (CHMP) is mandatory if the preparation of an EES is required. To comply with the requirements of the Aboriginal Heritage Act, a CHMP has been prepared for the project.

13.1.1 Existing conditions

Geomorphology and landforms

Understanding the landforms and geomorphology within the activity area is important for determining the likelihood and potential for places of Aboriginal cultural heritage to be present, as well as the types of places that may occur. Some landforms and land types are more strongly linked to human use and presence and are therefore more likely to contain Aboriginal cultural heritage. These environmental-archaeological relationships help to inform potential Aboriginal cultural heritage places.

The onshore component of the activity area is situated within three distinct geomorphological units (GMU), as shown in **Figure 13-2**:

- Plains with poorly developed drainage and shallow regolith (Wingeel) (GMU 6.1.3) in the northern extent of the activity area
- Plains and plains with low rises (Duck Hole Plain, Irrewillipe, Hanson Plain) (GMU 6.2.4) in the mid-section of the activity area
- Engineered Coast (GMU 8.7) in the southern extent of the activity area onshore.

The area around Hovells Creek in the north of the activity area would be more likely to contain Aboriginal cultural heritage, due the available water resource and gently sloping landforms. Gently sloping and well drained landforms were preferred locations for camping places, and the morphology of watercourses and availability of water resources influenced where and for how long people could camp or acquire food.

Geomorphological units (GMUs)

GMUs are used to map landscape attributes such as slope, aspect, soils and vegetation. The Victorian Geomorphology Framework (VGF) consists of a three-tier hierarchical system of land unit descriptions. The third-tier units of the VGF (i.e., GMU 6.1.3) allow for greater complexity and detail of landscape attributes within larger units.



Figure 13-2 Geomorphological units within the activity area

Historical environmental context

Prior to 1750, vegetation in the activity area consisted of five distinct vegetation classes. The majority of the activity area was characterised by Plains Grassland (Ecological Vegetation Class (EVC) 132); however, discrete portions of the activity area were comprised of Coastal Saltmarsh (EVC 9), Plains Grassy Woodland (EVC 55), Creekline Grassy Woodland (EVC 68) and Grassy Woodland (EVC 175).

Plants were used by Aboriginal people in the past for the construction of tools and weapons, medical purposes and as sources of food. Many of the species that would have thrived in the activity area in the past were used for these functions. Eucalypt barks were commonly used by Aboriginal people to make canoes and dishes, with large burls being hollowed out and used to make water containers. Saps were used to make medicinal treatments for injuries and illness and were occasionally mixed to produce flavoured drinks or eaten raw.

Given the extensive uses of the natural flora associated with the geographic region, the activity area would have contained valuable natural resources that would have been utilised by Aboriginal people.

The activity area now only contains very limited remnants of these vegetation classes.

Historical and ethnohistorical accounts

At the time of European contact with Aboriginal peoples in Victoria, the region surrounding Port Phillip and extending north to Euroa was occupied by people belonging to five distinct but related language groups. These language groups formed the East Kulin Nation and shared close cultural and religious ties. The activity area and surrounding region lay within the traditional lands of the Aboriginal people of the Wadawurrung language group within the East Kulin Nation. Wadawurrung territory extended from Aireys Inlet to the Werribee River, and north past Ballarat towards Mt Misery, as shown in **Figure 13-3**. The Wadawurrung were divided into 26 smaller clans and each clan was responsible for a specific section of Wadawurrung territory.

European settlement in the region had a significant effect on local Aboriginal populations. Steep declines in population were recorded soon after European settlement, although it is likely that by the time of the official settlement of Melbourne in 1835, Wadawurrung peoples had already suffered severe population decline due to the impact of conflict with settlers and fast-spreading infectious diseases. Disease and conflict took a heavy toll on the Wadawurrung people after European people arrived. Many of the clans were driven to the north and west, away from the heavily settled areas of Geelong and Melbourne.



Figure 13-3 Wadawurrung language area and clans

Heritage register search

A review of the VAHR indicates there are no Aboriginal places present within the activity area. There are eight Aboriginal places located within one kilometre of the activity area, two of which are located within 200 metres of the activity area. A summary of these Aboriginal places is provided in Table 13-1.

Table 13-1 Registered Aboriginal places within one kilometre of the activity area

VAHR number	Place name	Site type	Description
7721-0412	Princes 1	Artefact Scatter	Surface artefacts in the form of worked flakes and microliths, made from raw materials of silcrete, quartz and quartzite
7721-0756	Canterbury Road East 1	Artefact Scatter	Two surface artefacts in the form of retouched flakes, made from raw material of silcrete
7721-0872	Canterbury Road East 2	Artefact Scatter	One surface artefact in the form of a flake with edge damage, made from raw material of silcrete
7721-0969	Northern Water Plant 1	Artefact Scatter	Sub-surface artefact in the form of a proximal flake, made from raw material of quartzite
7721-0970	Northern Water Plant 2	Artefact Scatter	Sub-surface artefact in the form of a flake, made from raw material of quartz
7721-1229	Shell Parade Midden 1	Shell Midden	Stratified deposit containing several shellfish species including <i>Turbo sp.</i> , <i>Zeacumantus sp.</i> , <i>Polinices sp.</i> and a bivalve species
7721-1268	Brooklyn-Lara 3	Low Density Artefact Distribution	Eight surface artefacts in the form of proximal and complete flakes, a multidirectional core and an angular fragment, made from raw materials of silcrete, quartzite, quartz and rhyolite
7721-1347	Shell Parade Midden 2	Shell Midden	Sub-surface shell midden

Archaeological survey

Based on the desktop assessment conducted for the Aboriginal cultural heritage impact assessment, it was considered reasonably possible for Aboriginal cultural heritage to be present within the least disturbed portions of the activity area. On that basis, a standard assessment of the activity area was initially undertaken for CHMP 17816. The standard assessment involved a detailed pedestrian survey of the two portions of the activity area that do not contain existing sub surface utilities. These survey areas are shown in green in **Figure 13-4**.

Due to the extensive and long-term dredging that has occurred within and surrounding the offshore component of the activity area, it is considered unlikely that any underwater Aboriginal cultural heritage is present. Based on the desktop assessment and consultation with the RAP, the potential for underwater cultural heritage to be present was not further investigated as part of CHMP 17816 and the Aboriginal cultural heritage impact assessment. During preparation of CHMP 17816, extensive consultation activities were undertaken with the RAP, including a request for any oral history information or information on intangible values in the activity area. The RAP did not identify any intangible values associated with or relevant to the activity area and therefore no further assessment of intangible values was undertaken.

No Aboriginal places were identified during the standard assessment; however, one area of Aboriginal archaeological sensitivity was identified. This area comprises the crest and slope of a rise located in the northern section of the activity area.



Figure 13-4 Areas surveyed within the activity area

Archaeological excavations

A complex assessment was undertaken as part of the Aboriginal cultural heritage impact assessment and CHMP 17816, and in close consultation with the Registered Aboriginal Party (RAP), the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC). Representatives of the WTOAC participated in the fieldwork for the complex assessment. A total of two test pits and 26 shovel test pits were excavated within the two survey areas in the activity area. Of these, one test pit and two shovel test pits contained stone artefacts. These artefacts were located in the area of Aboriginal archaeological sensitivity in the northern section of the activity area. The complex assessment revealed that sub surface deposits within the northern portion of the activity area generally comprise dark brown, firm, moist, granular silt over strong, moist, blocky brown clay with basalt and calcrete nodules. One of the test pits excavated during the complex assessment is shown in **Figure 13-5**.

As a result of the detailed fieldwork assessments undertaken as part of CHMP 17816, one new Aboriginal place was identified within the activity area, as shown in blue in **Figure 13-6**. This place comprises a sub-surface artefact scatter in the northern portion of the activity area. The registration process for the newly identified Aboriginal place is currently ongoing as part of the CHMP process.



Figure 13-5 Test pit 1



Figure 13-6 Location of the Aboriginal place within the activity area 13.1.2

13.1.2 Construction impact assessment

Partial or total disturbance of known Aboriginal cultural heritage places

By undertaking the required fieldwork assessments as part of the CHMP, it has been possible to identify the presence of Aboriginal cultural heritage within the activity area with a high degree of certainty. Identifying and understanding the Aboriginal cultural heritage present within the activity area has reduced uncertainty in relation to the potential presence of Aboriginal cultural heritage and enabled a full assessment of potential impacts.

In the event that ground disturbing works such as trenching or excavation during construction were to be undertaken within the identified Aboriginal place, it would result in a direct impact and partial or total destruction of the place. However, no works are proposed to occur within the Aboriginal place, and the place would be included in a protection zone delineated by temporary fencing for the duration of the construction works (refer to mitigation measure MM-AH01). Therefore, the newly identified Aboriginal place would not be impacted by construction of the project.

Once approved, CHMP 17816 would outline the necessary management processes to be followed during construction to manage any potential impacts to the known Aboriginal place.

Partial or total disturbance of unknown Aboriginal cultural heritage places

Any ground disturbing works to be undertaken within the activity area have the potential to result in direct impact and possible destruction of unknown Aboriginal cultural heritage places. However, due to the extensive investigations undertaken as part of the CHMP, it is considered unlikely that unknown Aboriginal places would be present within the activity area. The approved CHMP would outline procedures (unexpected finds protocol) in the event that previously unrecorded Aboriginal places are encountered during the construction phase of the project (refer to MM-AH01).

It is highly unlikely that unknown Aboriginal cultural heritage places would be present within the activity area, both onshore and offshore, and any potential impact on such places is considered to be low to moderate depending on the significance of the place that could be encountered.

13.1.3 Operation impact assessment

No impacts associated with Aboriginal cultural heritage were identified for the operational phase of the project on the basis that all operation activities would occur in areas already disturbed by the construction phase of the project.

13.2 Historic heritage

Historical archaeological sites or maritime heritage places represent both tangible and intangible records of human interactions within their landscape, dating from post-European settlement. The daily activities of Victorians are represented in the historical and archaeological record, and these places are significant to both the people of Victoria and the Australian community and are an important part of a sense of place and national identity.

In Victoria, heritage places of state significance are recognised and protected through listing on the Victorian Heritage Register under the *Heritage Act 2017 (Vic)*. The *Heritage Act 2017 (Vic)* also automatically protects all archaeological sites, with known sites listed on the Victorian Heritage Inventory. Places of local heritage significance are protected through Heritage Overlays in local planning schemes in accordance with the *Planning and Environment Act 1987 (Vic)*. The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (Cth)* protects Australian places on the World Heritage List, National Heritage List and Commonwealth Heritage List.

13.2.1 Existing conditions

Overview of local heritage

A review of the land use history and maritime history of the activity area indicates that there are no known historical archaeological sites or maritime heritage places within the activity area, and it is considered highly unlikely that unknown and unrecorded historical archaeological sites or maritime heritage places would be present. This is on the basis that the majority of the activity area has a long history of substantial disturbance and examination of historical maps and aerial photographs suggests that it is unlikely that any unrecorded historical places would be present.

The first settlers to the Geelong area were Tasmanian pastoralists who arrived in 1836. The region of Corio Shire was dominated by agricultural and pastoral pursuits up until the early 20th century when the region became an industrial hub. A variety of industries were established around the railway line and Corio Bay wharves in the early 1900s, including meat-freezing works, Ford Motor works and fertilizer and phosphate factories. In the post-war years, most of these industries expanded, the Corio quay grew and the Shell oil refinery, now the current Viva Energy refinery, began operation in 1954.

As the region has historically been used for agricultural and industrial land uses, it is unlikely any unrecorded historical archaeological sites would be present in the activity area onshore. This is further supported by examination of historical maps and aerial photographs, which do not contain any evidence of the presence of historical places.

Corio Bay and, in particular, the Port of Geelong has a long history as an important shipping and trade hub servicing Geelong and Victoria. Port activities can be dated back to the 1840s, when the Queen's Wharf was constructed to receive livestock ships as well as provide for a passenger service between Melbourne and Geelong.

Refinery Pier was established in association with Shell Refinery in 1954, and the Corio Channel was subsequently deepened at Shell's request. Expansion of the channel between Refinery Pier and Point Richards was completed in 1958 widening the channel to 91.4 metres and deepening it to 10.9 metres. At this time, freighters, tugs and tankers all frequented the area. Since then, a number of dredging works and programs have been undertaken in Corio Channel and around Refinery Pier. Due to the extensive and long-term dredging that has occurred within and surrounding the activity area, it is unlikely that any maritime heritage is present.

Heritage register searches

A review of relevant heritage registers, including the AUCHD, indicates that there are no registered historical archaeological sites or maritime heritage places located within the activity area. All historical archaeological sites or maritime heritage places are located in excess of 200m from any proposed onshore construction works associated with the project.

Following the original search in March 2021 it was found that the most proximal registered historic heritage place, was Kings Wharf, The Esplanade. This place was deregistered by Heritage Victoria on 19 October 2021, as the examination of land use history indicates that the wharf was not constructed until sometime between 1978 and 1984.

As a result of the deregistration of Kings Wharf the most proximal registered historic heritage place is Lascelles Wharf, The Esplanade located 690m south-west of the offshore component of the project and 210m south of the southern portion of the onshore component of the project, as shown in **Figure 13-7**.

One Victorian Heritage Register place, six Victorian Heritage Inventory places and three heritage overlay places are located within one kilometre of the activity area. A summary of these historical archaeological sites or maritime heritage places is provided in **Table 13-2**.

The historic heritage impact assessment identified 21 historical archaeological sites or maritime heritage places within two kilometres of the activity area. Historical archaeological sites or maritime heritage places that are located beyond one kilometre of the activity area have not been included in this chapter as there is no potential for these places to be impacted by project activities. Refer to Technical Report P: *Historic heritage impact assessment* for a complete list of historical archaeological sites or maritime heritage places located within two kilometres of the activity area.

Table 13-2 Historical archaeological sites or maritime heritage places within 1km of the activity area

Place number	Place name	Location	Proximity to activity area
Victorian Heritage Register			
H1547	Hume & Hovell Monument	Princes Highway, Lara HO1731	750m north-east
Victorian Heritage Inventory			
H7721-0065	Bluestone Cobbles & Artefact Scatter	Forest Road South, Lara	450m west
H7721-0131	Duck Ponds Lime Kilns/ Limeburners Bay	Foreshore Road, Corio	760m east
H7721-0132 (deregistered)	Kings Wharf	The Esplanade, North Shore	370m south-west
H7721-0133	Lascelles Wharf	The Esplanade, North Shore	740m west
H7721-0244	Canterbury Road East House Site	705-835 Princes Highway, Lara	690m north
H7721-0134	Land Boom Jetty/Pivot Pier	The Esplanade and Sea Breeze Parade, North Shore	920m south-west
Greater Geelong City Council Heritage Overlay			
HO142	Geelong Grammar School original 1912-1913 building complex	50 Biddlecombe Road, Corio	660m east
HO1728	Former Corio Distillery Complex (Cheetham P/L) including former workers houses	23 Lowe Street, Corio	600m west
HO1731	Hume & Hovell memorial monument	106 Rennie Street, Lara	750m north-east

The results of the desktop assessment indicate that no previously recorded historic places are present within the activity area and suggest that it is highly unlikely that historic heritage may be present within the activity area.



Figure 13-7 Location of historical archaeological sites or maritime heritage places within 1km of the activity area

13.2.2 Construction impact assessment

Partial or total disturbance of known historical archaeological sites or maritime heritage places

As there are no known historical archaeological sites or maritime heritage places located within the activity area or within close proximity to the activity area (either onshore or offshore), there would be no adverse direct or indirect impacts on any known historic heritage place, both onshore and offshore, as a result of the proposed construction activities.

Partial or total disturbance of unknown historical archaeological sites or maritime heritage places

Any ground disturbing works to be undertaken within the activity area, such as construction of the underground pipeline and dredging works at Refinery Pier, could result in direct impact and possible destruction of unknown historical archaeological sites or maritime heritage places. However, as the majority of the onshore activity area is located within or adjacent to existing pipeline corridors, and the offshore activity area is located within or in proximity to areas of historic dredging, it is considered unlikely that historical archaeological sites or maritime heritage places would be present.

As a result, it is highly unlikely that unknown historical archaeological sites or maritime heritage places would be disturbed both onshore and offshore, and any potential impact on such places is considered to be minor to moderate (i.e., impacts would not be significant).

Onshore and offshore unexpected finds protocols would be implemented to manage any potential impacts on previously unrecorded historical archaeological sites or maritime heritage places in the unlikely event these are encountered during construction of the project (refer to MM-HH01 and MM-HH02).

13.2.3 Operation impact assessment

No impacts associated with historic heritage were identified for the operation of the project both onshore and offshore, on the basis that all operational activities would occur in areas already disturbed by the construction phase of the project.

13.3 Summary of mitigation measures

The mitigation measures to manage potential impacts to Aboriginal cultural heritage and historic heritage are outlined in **Table 13-3**.

Table 13-3 Heritage mitigation measures

Mitigation measure ID	Mitigation measure	Project phase
Aboriginal cultural heritage		
MM-AH01	<p>CHMP 17816 conditions</p> <p>The project will be delivered in accordance with conditions set out in CHMP 17816 to manage any potential harm to known Aboriginal places and values. Typical management conditions include, but are not limited to:</p> <ul style="list-style-type: none"> • Conditions for harm avoidance and/or harm minimisation measures • Conditions for harm mitigation measures where appropriate, including requirements for surface artefact collection and/or salvage excavations and appropriate analysis and reporting • Conditions for the removal, custody, curation and management of Aboriginal cultural heritage (artefacts) identified during the CHMP. • The CHMP will also provide necessary and appropriate mechanisms and processes to manage any potential harm to unknown Aboriginal places and values. Typical management of unknown Aboriginal places and cultural heritage values will include, but not limited to: • Contingency plans for the management of Aboriginal cultural heritage, including Aboriginal ancestral remains, unexpectedly identified during the construction phase of the project • Contingency plans for the removal, custody, curation and management of Aboriginal cultural heritage (artefacts) identified during the project • Review and compliance with the CHMP. 	Construction
Historic heritage		
MM-HH01	<p>Onshore unexpected finds protocol</p> <p>An onshore unexpected finds protocol will be adopted and implemented if an unknown historic heritage site, value or object is discovered onshore during construction. The protocol will be incorporated into the Construction Environmental Management Plan (CEMP).</p> <p>An archaeology induction will be given by a historical archaeologist to all staff and contractors involved in ground disturbance works prior to their commencement. This protocol will include measures to be implemented if an unexpected find is encountered at any stage during construction.</p>	Construction

Mitigation measure ID	Mitigation measure	Project phase
Historic heritage		
MM-HH02	<p>Offshore unexpected finds protocol</p> <p>An offshore unexpected finds protocol will be adopted and implemented if an unknown historic heritage site, value or object is discovered offshore during construction. The protocol will be incorporated into the Construction Environmental Management Plan (CEMP).</p> <p>A maritime archaeology induction will be given by a maritime archaeologist to all staff and contractors involved in seabed disturbance works prior to their commencement. This protocol will include measures to be implemented if suspected maritime heritage material is encountered at any stage during construction.</p>	Construction

13.4 Summary of residual impacts

13.4.1 Aboriginal cultural heritage

With implementation of the CHMP and its associated management conditions, residual impacts of the project on known Aboriginal cultural heritage would be negligible as a result of no adverse impact on the single identified Aboriginal place.

During construction, the residual impact on unknown Aboriginal places would be low to moderate (i.e., impacts would not be significant) as the CHMP would outline procedures that need to be followed in the event that previously unrecorded Aboriginal places are encountered and as the likelihood of encountering unknown Aboriginal cultural heritage is highly unlikely.

The residual impact on known or unknown Aboriginal places during operation is considered to be negligible as all operation activities would occur in areas already disturbed by the construction phase of the project.

13.4.2 Historic heritage

Residual impacts from partial or total destruction of previously unknown historical archaeological sites or maritime heritage places that may be encountered during project activities would be minor to moderate (i.e., impacts would not be significant), as the likelihood of encountering unknown historical archaeological sites or maritime heritage places is low and as onshore and offshore unexpected finds protocols would be implemented to manage any potential impacts in the event that unknown historical archaeological sites or maritime heritage places are encountered.

13.5 Conclusion

The project is not anticipated to have any direct or indirect impacts on known Aboriginal cultural heritage places.

The complex assessment undertaken as part of the Aboriginal cultural heritage impact assessment and CHMP 17816 identified the presence of Aboriginal cultural heritage in the form of a newly identified Aboriginal place, namely a sub-surface artefact scatter, in the northern portion of the activity area. However, this Aboriginal place would not be impacted by project construction as no ground disturbing works are proposed to occur within the Aboriginal place. The area would be included in a protection zone delineated by temporary fencing for the duration of construction works. With the implementation of the CHMP and its associated management conditions, the residual impact of the project on known Aboriginal cultural heritage is negligible.

It is highly unlikely that unknown Aboriginal cultural heritage places would be present within the activity area, both onshore and offshore, and any potential impact to such places is considered to be low to moderate depending on the significance of the place.

The project is not anticipated to have any direct or indirect impacts on known historical archaeological sites or maritime heritage places, as none are located within the activity area or within close proximity to the activity area. It is highly unlikely that unknown and unrecorded historical archaeological sites or maritime heritage places would be present within the activity area, as the activity area is located within or in proximity to areas of historic dredging. In the unlikely event unknown historic heritage material is encountered during construction works, both onshore and offshore, an unexpected finds protocol would be implemented to manage potential impacts.

In response to the EES evaluation objective described at the beginning of this chapter, impacts of the project on Aboriginal cultural heritage and historic heritage values have been assessed and mitigation measures have been identified to avoid and minimise adverse effects.