

14 November 2025

Arthur Jacobson

s7(2)(a)

Tēnā koe Arthur,

Request for Information – Local Government Official Information and Meetings Act (LGOIMA) 1987

We refer to your official information request dated 19 October 2025, seeking information regarding the Eastern Bays Shared Pathway (Tupua Horo Nuku) project. Specifically, you requested:

All correspondence, further assessments, and approvals relating to changes from the original mitigation commitments outlined in the Stantec Transport Assessment (e.g., staging of works by bay, low tide/off-peak scheduling, and limited traffic disruption), and the current implementation practices including:

- *Simultaneous work across multiple bays*
- *Full-day traffic stops across all tides and peak hours*
- *Year-round construction activity*
- *Extended workdays and weekend traffic controls*

You also indicated that, depending on the response, you may submit further requests regarding:

- *Impacts on local wildlife, particularly little blue penguins*
- *Dog access restrictions at Rona Bay Beach*
- *Installation of fencing along Rona Bay dunes and its visual impact*

Answer:

In response to your request, we have identified documents that record the original indicative approach, the consent conditions enabling changes, and the approved strategies and management plans that explain and authorise the shift to the current construction methodology. Please refer to **Appendix 1** below, which lists the documents in scope of your request and our decision on their release.

For further context, the original Stantec Transport Assessment (2019) described an indicative approach of constructing one bay at a time over 3–6 months, with work largely at low tide and off-peak times. These statements were not binding and were subject to refinement through the resource consent process.

The Independent Hearing Panel decision (March 2021) granted consent subject to certification of a Construction and Environmental Management Plan (CEMP) and Traffic Management Plan (TMP). These plans lawfully allow adjustments to staging and traffic management to reflect practical conditions, safety requirements, and programme needs. Under Conditions GC.11–GC.13, each TMP must be certified by the Road Controlling Authority to ensure public safety and efficient traffic flow, and ongoing monitoring is required to improve road management over time.

Several factors led to changes from the original “one bay at a time” concept. Tidal and weather constraints meant that restricting works to short tidal windows was impractical and could compromise quality and safety. Continuous lane control across multiple bays allowed larger work sections to be completed safely within each set-up, reduced repeated mobilisations, and enabled better use of favourable conditions. Monitoring under the certified TMP showed that predictable single-lane control across multiple bays maintained shorter and more consistent delays overall than sequential closures.

To recover programme delays and minimise overall disruption, an updated traffic management approach was approved through the Traffic Management Plan (TMP) certification process.

Environmental mitigation measures remain in place under consent conditions, including a Bird Protection Plan, dog-control measures implemented through Council's Dog Control Bylaw (2024), and dune fencing required by the certified Landscape and Ecological Management Plans.

You have the right to seek an investigation and review by the Ombudsman of this response. Information about how to make a complaint is available at: [Office of the Ombudsman - Complaints](#), or freephone 0800 802 602.

Please note that this response to your information request may be published on Hutt City Council's website: [Proactive releases - Hutt City Council](#).

Ngā mihi nui

A handwritten signature in black ink, appearing to read 'Rebekah'.

Rebekah van der Splinter

Senior Advisor, Official Information and Privacy

Appendix 1: Documents for release

Number	Date	Document Type	Title/Subject Line	Redaction Grounds
1	Feb 2019	Report	Eastern Bays Shared Path Transport Assessment (Stantec)	Released to you in full
2	Mar 2021	Decision Report	Eastern Bays Shared Path – Decision Report of Independent Hearing Panel	
3	Feb 2021	Consent Conditions	Proposed Resource Consent Conditions	
4	Jun 2023	Management Plan	Bird Protection Plan	
5	26 Aug 2025	Report	A&R Report – Tupua Horo Nuku	

EASTERN BAYS SHARED PATH TRANSPORT ASSESSMENT

PREPARED FOR HUTT CITY COUNCIL

February 2019

QUALITY STATEMENT

PROJECT MANAGER

Jon England

PROJECT TECHNICAL LEAD

PREPARED BY

Dhimantha Ranatunga



13/03/2019

CHECKED BY

Caroline van Halderen



13/03/2019

REVIEWED BY

Jamie Povall



13/03/2019

APPROVED FOR ISSUE BY

Jamie Povall



13/03/2019

WELLINGTON

Level 13, 80 The Terrace, Wellington 6011
PO Box 13-052, Armagh, Christchurch 8141
TEL +64 4 381 6700

REVISION SCHEDULE

Rev No.	Date	Description	Signature or Typed Name (documentation on file)			
			Prepared by	Checked by	Reviewed by	Approved by
	12.02.19	Final	JR, DR	CvH	JP	JP

Hutt City Council

Transport Assessment

CONTENTS

Executive Summary	5
1. Introduction	8
1.1 Background	8
1.2 Project Extent	9
1.3 Purpose of this Report	9
2. Existing Situation	11
2.1 Road Network	11
2.2 Existing Walking and Cycling Facilities	11
2.3 Public Transport	12
2.4 Existing Crash Data	13
2.5 Problems of the existing facility	13
3. Recommended Option	14
3.1 Assessment of Alternatives	14
3.2 Option Overview	15
3.3 Design Features	15
4. Transport Outcomes and Benefits	20
4.1 Key Outcomes	20
4.2 Strategic Assessment	20
4.3 Economic Evaluation	21
4.4 Accessibility and Connectivity Benefits	25
4.5 Mode Shift – General, Multi modal and Positive Environmental Outcomes	28
4.6 Health and Environmental Benefits	29
4.7 Safety Benefits	30
4.8 Resilience Benefits	31
4.9 Other Benefits	32
5. Transport Impacts and Mitigation	33
5.1 Construction Impacts	33
5.2 Operational Impacts and Mitigation	33
6. Summary	36

LIST OF TABLES

Table 1-1: Shared Path Benefits	6
Table 1-2: Shared Path Impacts and Mitigation	6
Table 4-1: Recommended option performance against investment objectives (Source: Eastern Bays DBC)20	
Table 4-2: Estimated Existing and Future Usage	22
Table 4-3: Estimated Value of Time (\$/hour).....	23
Table 4-4: Economic Assessment.....	24
Table 4-5: Option Sensitivity Testing	25

LIST OF FIGURES

Figure 1-1: Proposed shared path showing a typical widening	5
Figure 1-1: The Great Harbour Way (Source: http://www.greatharbourway.org.nz)	8
Figure 1-2: Map of Project Area	9
Figure 2-1: Example shoulder used for cycling (Lowry Bay).....	11
Figure 2-2: York Bay, section with recent seawall upgrade	11
Figure 2-3: Ferry Service Map (Source: MetLink Ferry Service Map)	12
Figure 3-1: Proposed shared path showing a typical widening	17
Figure 3-2: Coastal Edge Treatment	18
Figure 4-1: Eastern Bays (Point Howard) - Observed Cyclists Volumes 2017 (tube count survey).....	22
Figure 4-2: Census Cycling to work mode share – Historic Growth Comparison	23
Figure 4-3: Eastern Bays Shared Path: Distribution of Benefits.....	24
Figure 4-4: Eastern Bays Shared Path Scheme – Context to the Wider Network	26
Figure 4-5: Remutaka Cycle Trail (Source: https://wairarapanz.com)	26
Figure 4-7: Urban Cycleway projects in Lower Hutt (Source: NZ Transport Agency)	27
Figure 4-8: Health benefits of exercise.....	30

Executive Summary

The construction of a shared pedestrian and cycle specific path along the seaward side of Marine Drive has been an aspiration for Hutt City Council (HCC) and its residents for many years. The Shared Path has featured in past strategies and is a key project under the current strategy “Walk and Cycle the Hutt 2014 – 2019”.

The project focuses on improving safety for pedestrians and cyclists travelling along Marine Drive and provides a basis for future opportunities for protecting the resilience of the road and underground services by upgrading the supporting seawalls. Marine Drive provides the only road access to the Eastern Bay suburbs and is therefore a key transport route for the region.

A facilitated objectives, constraints and opportunities stakeholder workshop was held on 8 September 2016. At the workshop, the project team and stakeholder panel identified and agreed the following two key problems:

- **Problem 1:** “Safety of current path and lack of separation prevents walking and cycling and the subsequent health, environmental and economic effects.”
- **Problem 2:** “Current facility is at increasing risk of closure and damage from storms and sea level rise and there is no alternative route.”

Throughout the development of the Project, alternatives and options associated with the design were investigated and recorded, refer the Alternatives Assessment (Appendix G). The resulting Project was developed and pursued on the seaward side of Marine Drive, the key reasons for favouring the “coastal edge” option.

Figure 1-1 shows the existing situation with the proposed widening graphically superimposed.



Figure 1-1: Proposed shared path showing a typical widening

To achieve the above, the works include:

- A continuous seaward Shared Path with a varying width between 2.5m and 3.5m;
- The replacement and improvement of existing seawalls in parts;

- The placement of rock revetments to protect the foreshore either side of headlands;
- New curved seawalls;
- Beach nourishment;
- Beach access points; and
- Minor repositioning of bus shelters.

A number of benefits will be realised as a result of the shared path, as well as some impacts and subsequent mitigation measures. The transport benefits of the Shared Path are outlined below in Table 1-1.

Table 1-1: Shared Path Benefits

Benefit Type	Description
Safety	Improved actual and perceived safety for pedestrians and cyclists.
Resilience	Improved resilience against climate change, sea level rise and future storm events through proposed seawall improvements and potential longer term additions.
Economic	Increased pedestrian and cycle users on Marine Drive – economic evaluation has assumed some 200 new users. Benefit Cost Ratio (BCR) of 1.3 with a First Year Rate of Return of (FYRR) 5%.
Improved health and well-being	Active transport helps to reduce disease and ill-health associated with inactivity.
Accessibility and Connectivity	Improved social connectivity and opportunities and improved accessibility for the residents of Eastern Bays – within individual bays, between different bays, to and from Lower Hutt and beyond and to other cycle routes.
Mode shift	Reduction in private vehicle use as the number of active users increases – some existing trips, but largely new trips on to the network.
Environment	Reductions in CO ₂ emissions and congestion.
Other	Localised economic improvements and increased business for local suppliers of goods and services, particularly through increased tourism activities.

There will also be some transport impacts felt as part of the project. Mitigation measures have been identified to ensure that any transport impacts are reduced, these are highlighted in Table 1-2 below.

Table 1-2: Shared Path Impacts and Mitigation

Impacts	Mitigation
Construction – temporary traffic management and lane closures, increase in construction traffic, increases in journey times and parking shortages due to increased demand.	Staged construction over a 6-year period, bay by bay for a period of 3-6 months per bay. Construction traffic will be limited to low tide and off-peak traffic times. Disruption over a short geographical distance, with partial closures only and for a short duration.
Reduction of informal parking.	Improvements to formal parking areas. The Shared Path may reduce need for on-street parking by enabling walking / cycling access.
Pedestrian crossing demand to increase.	Separators between the shared path and traffic lane will feature regular gaps, allowing pedestrians and cyclists to cross Marine Drive. Transition points provided for cyclists.

Impacts	Mitigation
No on-road cycling facility.	Cyclists can either use the shared path component or continue to use the traffic lane.

Overall, from a transportation perspective, the provision of a Shared Path along Marine Drive is considered to provide significant benefits to the local community and users from further afield that outweigh the impacts.

1. Introduction

1.1 Background

The construction of a shared pedestrian and cycle specific path along the seaward side of Marine Drive, which runs through the Eastern Bays, has been an aspiration for Hutt City Council and its residents for many years. The Shared Path has featured in past strategies and is a key project in providing a safe and integrated network for commuting and recreational purposes under the current strategy "Walk and Cycle the Hutt 2014 – 2019".

The project forms a key part of the Te Aranui o Pōneke (the Great Harbour Way), a walking and cycling route around Te Whanganui-a-tara, the harbour of Wellington, as well as completing the circular link for the Remutaka Trail. The proposed route will link Fitzroy Bay in the east to Sinclair Head in the west, and the urban areas of Wellington, Hutt City and Wainuiomata, further increasing the interconnectivity to an increased number of amenities and services for the residents within the Eastern Bays area. The wider context of the Great Harbour Way ("GHW") is provided below in Figure 1-1 below.

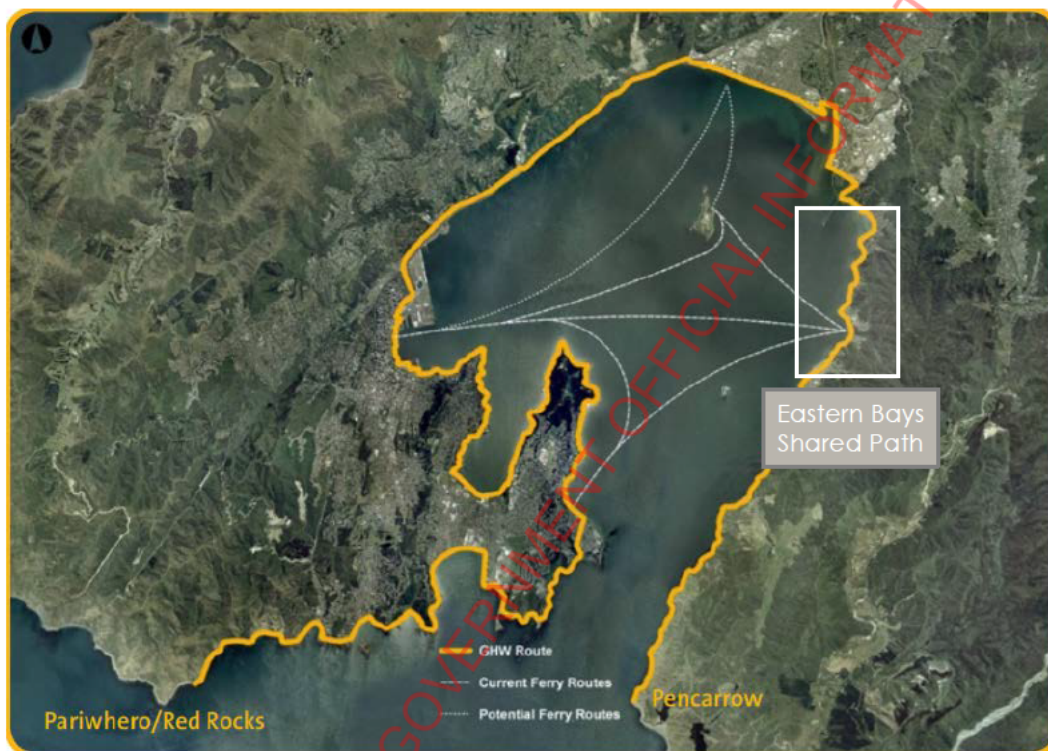


Figure 1-1: The Great Harbour Way (Source: <http://www.greatharbourway.org.nz>)

Equally, the Project improves, and provides the basis for future opportunities for protecting the resilience of the road and underground services by upgrading the supporting seawalls. Marine Drive provides the only road access to the Eastern Bay suburbs and is therefore a key transport route for the region¹.

Key infrastructure services including the Main Outfall Sewer Pipeline (MOP) are located within the road corridor.² The MOP is an 18km long pipeline that conveys secondary treated wastewater from the Seaview Wastewater Treatment Plant (which services 146,000 residents and a large number of local industries) to the outfall at Bluff Point, near Pencarrow Head.³ The MOP is a regionally significant infrastructure, and along with the road access and other services are important lifeline utilities for the wider community.

¹ Marine Drive is classified as a "Primary Collector" under the One Network Road Classification (ONRC) with traffic volumes up to 8,000 vehicles per day.

² It is currently believed the MOP is in good working order, and under existing conditions will remain so for the foreseeable future. There is allowance in long term budgets for replacement or renewal of the pipeline insitu. (Seaview Wastewater Treatment Plant, Main Outfall Pipeline, Condition Report dated August 2016, MWH).

³ Any damage to the MOP will result in emergency overflows into the Hutt River via the Waiwhetu Stream.

1.2 Project Extent

The project predominantly focuses on improving the safety for pedestrians and cyclists travelling along Marine Drive, whilst also crucially improving the resilience of Marine Drive against through upgrading existing sea walls and providing increased separation from the live carriageway. The project is proposed between:

- Point Howard (in the north) and the northern end of Days Bay; and
- The southern end of Days Bay (Windy Point) to Eastbourne (Muritai Road / Marine Parade intersection, to the south).

There are a number of bays that collectively comprise the Eastern Bays, as shown in Figure 1-2 below. The bays include; Sorrento Bay, Lowry Bay, York Bay, Mahina Bay, Sunshine Bay, Days Bay, Rona Bay, Eastbourne village and Robinson Bay. Collectively, the Eastern Bays cover a significant catchment area comprised mainly of residential and leisure land uses.



Figure 1-2: Map of Project Area

1.3 Purpose of this Report

The purpose of this Transportation Assessment is to provide a summary of the transportation benefits and potential impacts (and mitigation) associated with the proposed Shared Path. This report also provides background on the existing roading environment and an outline of the option development process.

The following information is therefore presented within this report:

- The existing transportation environment within the vicinity of the site;
- An outline of the recommended Shared Path option;
- A review of the benefits resulting from the introduction of the Shared Path – safety, accessibility, resilience, environment, health and mode shift; and
- A review of the potential impacts and potential mitigation measures proposed.

2. Existing Situation

2.1 Road Network

Marine Drive is classified as a Primary Collector under the One Network Road Classification (ONRC) with traffic volumes of between 6,000 to 8,000 vehicles per day. The coastal road winds its way around several headlands and the Eastern Bays is located along the eastern perimeter of Wellington Harbour between Point Howard in the north and Eastbourne in the south. Approximately five thousand people live along the Eastern Bays with Marine Drive providing the only road access from Petone / Lower Hutt, as well as to the wider strategic road network, to the pockets of residential land use in the Eastern Bays area.

Generally, Marine Drive has a trafficable road width of ~3.5m, but this can fluctuate to ~4.5m wide and also narrow down to around 3.0m in places, particularly around the curves in the road. Marine Drive has a posted speed limit of 50km/h at Point Howard, Sorrento Bay, Lowry/Whiorau Bay, Days Bay and Windy Point. York Bay, Mahina Bay and Sunshine Bay all have a higher posted speed limit of 70km/h.

2.2 Existing Walking and Cycling Facilities

Marine Drive provides very few safe facilities for pedestrians and cyclists. Generally, cyclists are not accommodated for and are mostly expected to use the very narrow road shoulder, or, share the live traffic lane⁴. At a small number of locations, short sections of shared paths are available along the seaward side. These shared paths are predominantly located in areas where new seawalls have been constructed therefore allowing provision of this type of facility, or where considerable width already exists.

The lack of continuity in terms of the existing pedestrian and cycle environment, highlighted by Figure 2-1 and Figure 2-2, is also not conducive to encouraging people to cycle; having to re-join the carriageway at regular intervals provides a heightened sense of danger for cyclists when travelling along this route and using the existing facilities.

The lack of existing provisions for pedestrians and cyclists is reflected within the number of current users along Marine Drive. A short term traffic survey was completed in 2015 on Marine Drive and indicated that approximately 80 cyclists use Marine Drive per day. Pedestrian survey count data is limited, with peak period counts in 2015 showing over 15 pedestrians in the morning peak at Sorrento Bay. A further longer term traffic survey was completed in September 2017 which showed typical use of approximately 110 cyclists per day in the vicinity of Point Howard⁵.



Figure 2-1: Example shoulder used for cycling (Lowry Bay)



Figure 2-2: York Bay, section with recent seawall upgrade

⁴ Where a road shoulder is provided along Marine Drive, the provision is not considered of appropriate quality to provide a comfortable and / or safe ride for cyclists.

⁵ Refer Section 4.2 for further details on existing users

2.3 Public Transport

Marine Drive is serviced by bus routes 81, 83 and 85x. Each weekday there are 95 bus movements on the corridor, with buses operating between 6.00am and 11.00pm. Cumulatively, these bus services provide a total of 11 services during the AM peak period (07:00-09:00) and a total of five services during the PM peak period (16:00-18:00), mainly utilised as a commuter service. Due to the relative geographical isolation of the Eastern Bays and moderate levels of residential land use, this level of service is considered appropriate.

In addition to the bus services, a Ferry service operates between Days Bay Wharf and Queens Wharf (Wellington City Centre), with services also operating to Seatoun and Maitu / Sommes Island as shown in Figure 2-3. The predominant service is between Days Bay Wharf and Queens Wharf and is used by commuters, providing an alternative connection to Wellington City Centre. During the morning and afternoon peak periods, there are a total of two services an hour, with an estimated travel time between 25 to 45 minutes⁶. The travel time and frequency of the Ferry services presents an attractive alternative to other modes i.e. private vehicles⁷.

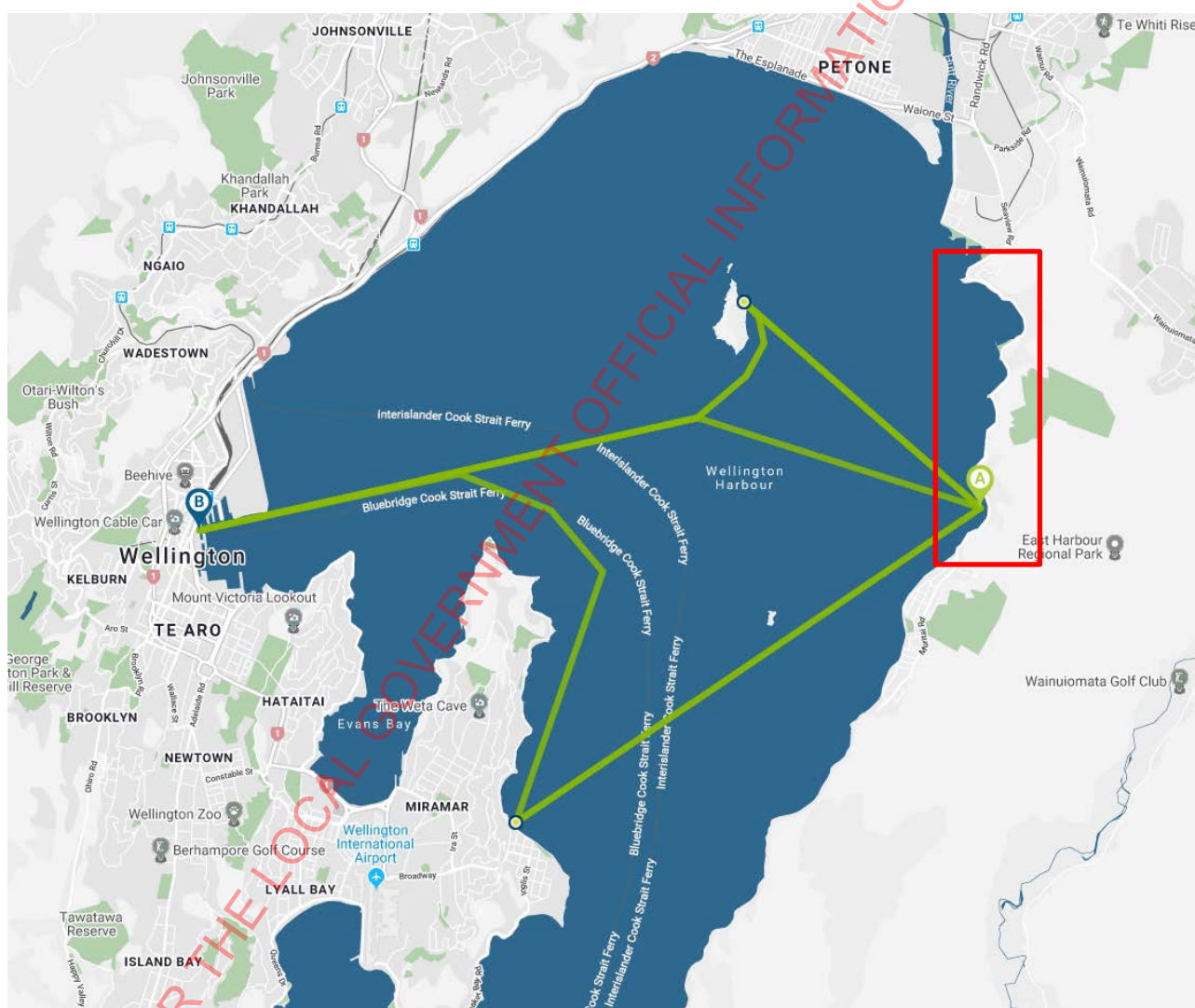


Figure 2-3: Ferry Service Map (Source: MetLink Ferry Service Map)

⁶ Direct journey times take approximately 25 minutes, whilst trips incorporating a stop at Seatoun Wharf take an additional 20 minutes (45 minutes in total).

⁷ Travel time by car in the morning peak is around 30-50mins (via SH2), the ferry service therefore provides an attractive alternative.

2.4 Existing Crash Data

For the purpose of reviewing road safety along Marine Drive, an examination of the NZ Transport Agency's (NZTA) Crash Analysis System database for the local road network has been undertaken to identify any existing safety issues (with a particular focus on crashes involving pedestrians and cyclists).

The search captured any crashes recorded for the latest complete ten-year period (2008-2017, and all available information for 2018), within a search area that included the entire section of Marine Drive that is proposed to form part of the Shared Path scheme. It was found that a total of five crashes involved either a pedestrian (two crashes) or a cyclist (three crashes) with all crashes resulting in minor injuries being sustained.

Both crashes involving pedestrians were the result of a pedestrian crossing Marine Drive, from the left heedless of traffic, with the vehicle travelling northbound along Marine Drive. Both collisions occurred at Days Bay and are likely to be the result of people crossing the road inattentively, rather than walking along Marine Drive and having insufficient space to do so. It is likely that pedestrians are avoiding walking along Marine Drive due to the lack of existing infrastructure to allow them to do so; this is reflected in the traffic surveys which show relatively low pedestrian usage along Marine Drive.

A total of three crashes involving cyclists have been recorded within the study period between 2008 and 2018. Two crashes occurred when a cyclist lost control whilst being overtaken by a vehicle, whilst the other crash involved a vehicle failing to give way and subsequently turning right across the path of an oncoming cyclist. The two crashes involving a vehicle overtaking a cyclist shows that the lack of available space can present an issue to cyclists.

As with the pedestrian crashes, the relatively low numbers of crashes involving cyclists likely reflect the high perceived safety risk of cycling.

Only one of these five crashes occurred in the most recent 5-year period (occurring in 2015), with the other four crashes occurring in 2010 or earlier. It is not considered that the pedestrian and cycle amenities along this route have been improved significantly since 2010. Therefore, the reduction in recorded crashes is more likely to be a result of either the random nature of crashes or an increase in perceived risk reducing the number of pedestrians and cyclists opting to travel along Marine Drive (thereby reducing the probability of a crash from occurring).

2.5 Problems of the existing facility

A facilitated objectives, constraints and opportunities stakeholder workshop was held on 8 September 2016 as part of the Business Case phase of the project to:

- agree on problem statements and themes for investment objectives;
- capture known constraints and opportunities; and
- identify a long list of options for investigation.

At the workshop, the project team and stakeholder panel identified and agreed the following two key problems:

- **Problem 1:** "Safety of current path and lack of separation prevents walking and cycling and the subsequent health, environmental and economic effects."
- **Problem 2:** "Current facility is at increasing risk of closure and damage from storms and sea level rise and there is no alternative route."

A higher priority rating⁸ was given to Problem 1 over Problem 2 at 70% vs. 30%. Problem 1 was identified as the main objective of the project, when the project team considered the following statement;

"With a limited budget and you could only fix one problem with this project, how would you choose to spend the available budget?"

⁸ Despite higher priority being given to Problem 1, it is considered that Problem 2 is a longer-term issue. Whilst the proposed improvements to the seawalls will only delay the increasing issue of sea level rise, the Shared Path does 'buy some time' in terms of impacts on Marine Drive. In the time gained through the introduction of this project, HCC will need to consider longer-term options for managing the road access to Eastbourne, specifically allowing for adaptation to ongoing sea level rise. As such, this problem is viewed as being critical to the scheme and has been considered as such throughout this report.

Therefore, an optioneering approach was completed to realise the most desirable Shared Path configuration, the results of which are provided in the next section of this report.

3. Recommended Option

3.1 Assessment of Alternatives

The Assessment of Alternatives is described in Appendix G of the resource consent application.

Throughout the development of the Project, alternatives and options associated with the design were investigated and recorded. Given the geography and terrain in the Eastern Bays area and lack of any alternative transport routes, the focus of option development has been on alignments based on Marine Drive.

The resulting Project was developed on the seaward side of Marine Drive and the key reasons for favouring the “coastal edge” option are:

- The presence of steep hill slope on landward side – major earthworks and cuts, especially on headlands, would be required;
- Avoiding disturbance to properties and dwellings;
- Reduced car and pedestrian conflicts – interaction between accessing and egressing vehicles from the landward side of Marine Drive is removed;
- Enhanced connection to the coast resulting in recreational benefits – connects to the Great Harbour Way and Remutaka trail facilities as well as further commuter opportunities;
- Integration with coastal hazard protection and climate change mediation. The path can be provided on an enhanced, consistent and fit-for-purpose seawall. The upgrading of the seawall will alleviate existing and short-term future impacts felt on Marine Drive, such as; road closures and effects on underground amenities resulting from overtopping and undercutting respectively, as a result of sea level rise and subsequent increases in 100 year storm events⁹.
- Providing a seawall and treatment options that respond to environmental effects such as fish passage, natural character, etc.; and
- An affordable option with medium to long-term benefits.

Different types of building and design methodologies have also been considered, alternatives investigated include:

- Location of the Shared Path within the road corridor;
- Types of seawall (treatment options);
- Design features; and
- Construction methodologies.

3.1.1 Options Assessment

A key output of the IBC phase was to identify the most suitable width for the shared path to accommodate two-way flows including pedestrians and cyclists, without requiring the acquisition of significant amounts of seaward land, currently providing habitat for local flora and fauna as well as recreational uses relating to the beach.

With these criteria in mind, the IBC identified five potential options:

- Option 1 – only replace seawalls with less than five years of remaining life - the ‘do-minimum’ option and was considered as a baseline for assessment purposes only.
- Option 2 – 1.5-metre-wide facility - the lowest standard facility and an ‘absolute minimum’ option.
- Option 3 – 2.0-metre-wide facility – the slightly wider than the minimum consideration but still less than providing the ideal level of service for users.

⁹ With only 30cm of sea level rise (i.e. within 50 years) the frequency of the present day “100-year storm” event for coastal flooding in Wellington will have increased to once per year on average (NIWA 2015, PCE 2015).

- Option 4 – 2.5-metre-wide facility - achieved the minimum standard for a shared path.
- Option 5 – 3.5-metre-wide facility - a wider path that achieved the desirable minimum requirement for a recreational shared path.

Through the assessment and shortlisting of preferred options, and consultation with stakeholders and the community, a recommended option was determined and developed further through the DBC¹⁰. This option meets the intended outcomes and project benefits sought, while aiming to address and mitigate some of the key challenges and constraints that were identified during option development and consultation.

3.2 Option Overview

The preferred option detailed above has been amended and refined in several locations from the option that was consulted upon due to community feedback and further investigations and assessments. Broadly, the key changes are that generally the path is proposed to only be 2.5 metres wide through some of the beach locations to reduce the impact of lost beach resource, some changes to areas of potential revetment and there was almost no support from the community for a boardwalk solution anywhere along the corridor (hence it was removed¹¹). The proposal to introduce beach nourishment has also impacted on the selection of a 3.5m wide path at certain beach locations (Point Howard, Lowry Bay and York Bay) allowing for a wider path to be provided.

A description of the recommended option is provided in the Design Features Report, Appendix J of the resource consent application.

The proposed design has taken a staged construction approach and has been developed bay by bay on a site-specific basis, responding to a range of site specific issues including, but not limited to; the structural condition of the existing walls, the width of the existing road reserve, coastal processes (existing and future) and community feedback.

The works include:

- A continuous Shared Path with a varying width of between 2.5m and 3.5m and finished with an asphalt surface, defined by a kerb block on the inland (road) side of the path;
- The replacement and improvement of existing seawalls in parts;
- The placement of rock revetments to protect the foreshore either side of headlands;
- New curved seawalls with either a single, double or triple curve face, to better cope with existing and short-term projected sea level rise and weather events within Eastern Bays;
- Beach nourishment to improve recreation amenity at these locations and to allow for a wider path to be provided;
- Beach access points (for both people and native flora and fauna¹²); and
- Minor repositioning of bus shelters.

Further details are set out in the Design Features Report (Appendix J) of the resource consent application.

3.3 Design Features

A description of the Design Features of the recommended option is provided in Appendix J of the resource consent application. Relevant design features from a transport perspective are outlined below.

3.3.1 Shared Path

The proposed works include the construction of a Shared Path along a 4.4km stretch of shoreline between Point Howard and the northern end of Eastbourne, excluding the Days Bay beach area. Most of Marine Drive is currently supported by a seawall, with the exception of the prominent rocky headlands at Point

¹⁰ The final option is a mixture of Option 4 and Option 5 and takes in to account the desire for a 3.5m path but also allows for a reduction at some locations where this cannot be achieved – the minimum standard for a shared path is still achieved

¹¹ A boardwalk option would also not provide the same level of protection against sea level rise as is the case with improving the seawall facilities at selected points through the Project scope.

¹² For flora and fauna, beach access points will be included within the seawalls themselves to ensure that appropriate ecological transitions can be achieved.

Howard, and between Sunshine Bay and Days Bay. The seawall has been rebuilt in parts over the past years and still requires upgrading / remedial works in some locations.

The Shared Path varies in width (between 2.5m and 3.5m) depending on the physical constraints of the bay environments. The path width is measured from the seaward side edge of the path to the seaward side face of the separator kerb as shown on the typical cross section in the visualisation of Sunshine Bay in Figure 3-1 below. The visualisation shows the existing situation and the proposed widening to create a 2.5m wide Shared Path along this section of beach. Figure 3-1 shows a significant improvement upon the existing situation and physically segregates pedestrians and cyclists from the live carriageway with sufficient space for two-way pedestrian and cycle traffic¹³. In peak periods, where a shared path experiences increased flows, shared paths often become 'self-policing' with pedestrians travelling two abreast and cyclists slowing down and passing pedestrians when it is safe to do so.

The path users will experience some variation in width, with 2.5m wide Shared Path sections provided along some beaches while a wider 3.5m width is achieved in other sections. Beach nourishment is proposed at three locations and will allow for additional width to be achieved within the path (which would otherwise be more constrained). There are pinch points at trees and at the heritage buildings (Skerrets Boatshed) and through the Whiorau Reserve the path will be 3m wide. The Shared Path is therefore designed to fit in with the environment and is not a "one size fits all".

The Recreational Assessment, Appendix K of the of the resource consent application, contains a literature review on shared paths, with a width of 2.5m – 3.5m found to be typical for the forecast usage; however, a wider width of 3.5m was recommended due to the recreational nature of the route and the high likelihood of congregation of users during peak periods.

Due to the relatively flat profile of the proposed Shared Path and width, it is considered less likely that users will travel at excessive speeds that might result in a higher risk of conflict as would be the case if this path was provided on a downhill gradient or in a very wide unconstrained environment. The leisure user is also unlikely to travel at high speeds, further justifying the design of the proposed Shared Path being 'fit for purpose'.

Ultimately, the facility is not solely considered to be a movement corridor. While the movement function of the shared path is important, it is also a recreational leisure facility for people to enjoy and during peak periods the leisure facility and greater user density will limit the ability for high speed use.

¹³ Cyclists generally require 1m of available space to travel without conflict with other users. Providing a minimum width of 2.5m easily achieves this with 0.5m of buffer. Pedestrians generally require less than 1m.



Figure 3-1: Proposed shared path showing a typical widening

3.3.2 Beach Access

It will be important to maintain beach access for beach users on foot and also for boat or kayak access¹⁴. The connectivity between the Shared Path and the beach will be achieved through the careful placement and design of ramps and steps. Generally, the design provides a minimum of two accesses per beach which is considered sufficient for those wishing to gain access, whilst not providing too many conflict points with users of the Shared Path. The generic access options include:

- Standard steps;
- Mini steps; and
- Boat ramps.

3.3.3 Separators and Road Crossings

Concrete kerb separators will be used to physically and visually separate the Shared Path from the road. The kerbs would require reflectors on the traffic side for improved night time visibility. Figure 3-2 provides an example of the type of concrete kerb separators that are likely to be used. The benefits of concrete at this location are:

- Concrete separators have the adaptability to incorporate textures and colour and can be easily mass produced once the concrete moulds have been manufactured;
- Concrete is preferable to timber due to structural integrity and cost; and
- Durability in a marine environment that is susceptible to wave over-topping.

¹⁴ The Eastern Bays provide a popular spot for boat and kayak activities



Figure 3-2: Coastal Edge Treatment

3.3.4 Bus Operation

No changes to the bus route or frequency of buses will be required, however minor modifications or relocations to some bus stops (Mahina Bay and York Bay) are proposed. The design of the new bus shelters will include ensuring sufficient width is available when designing the new sea walls and providing a foundation for the new structure. The bus stop structure is an integral part of the local identity and will be designed in consultation with the community to ensure that there is some variation to respond to local prevailing wind and rain. This provides an improved amenity to what is currently being provided.

The provision of bus shelters will be addressed in the Landscape and Urban Design Plan (a suggested condition of the consent).

3.3.5 Signage and Markers

Story boards to include interesting features, such as places of cultural interest, information about the ecological textures of the seawall and in the location where additional vertical pot plant rock pools are added to the curved surface will be provided. Consultation with the local community and Iwi be completed in order to receive appropriate feedback on the designs to ensure that the information provided is historically, ecologically and culturally accurate. A balance will be struck between the amount of signage that is provided so as not to produce a cluttered feeling for users of the Shared Path, whilst at the same time, providing sufficient information that is informative, appropriate and interactive.

This will be addressed in more detail in a Landscape and Urban Design Plan, a suggested condition of this consent.

3.3.6 Path comfort facilities

Seating will be required along the Shared Path at frequent locations. Seating will be prioritised in locations where additional widening of the path can be avoided, in order to minimise costs and environmental effects.

This will be addressed in more detail in a Landscape and Urban Design Plan, a suggested condition of this consent.

3.3.7 Parking

A number of informal parking bays have been established where there is additional shoulder width available. In some locations, this shoulder width will be reallocated to provide for the Shared Path, reducing the extent of beach reclamation and minimising changes to the shoreline. Some seaward parking spaces will be lost, however improvements to the remaining parking areas are proposed. Parking areas will be formalised and perpendicular spaces will be reoriented to parallel parking, providing safety benefits for road users, and maximising the parking space numbers in the available space.

Refer Section 5 for further discussion.

3.3.8 Traffic Services

Traffic services such as safety barriers, signage and marking will form part of the detailed design stage and will be subject to the relevant stages of a road safety audit ensuring safe implementation of the proposed design. The intent would be to only use coloured surfacing in locations of high conflict to avoid visual clutter and to achieve visual continuity of the provision.

4. Transport Outcomes and Benefits

This section outlines:

- The key outcomes expected from the project.
- A summary of the transport economic benefits, including existing and future demand estimates.
- Further commentary on key transport benefits from safety to resilience.

The Recreational Assessment, Appendix K of the resource consent application, considers the community and personal wellbeing, tourism and recreational benefits of the proposed Shared Path.

4.1 Key Outcomes

The key outcomes of the project are to improve pedestrian and cyclist safety and to increase the number of users on the corridor. Equally, the project will improve the current and short-term future resilience of Marine Drive in the face of climate change, sea level rise and increased storm events. Opportunities to enhance tourism as an outcome of the project was also recognised.

The outcomes of the project are expected to be achieved as there is strong community support for the project; residents have identified that the completion of the Eastern Bays Shared Path, and concerns about climate change, are the two most important issues facing the Eastbourne Community.¹⁵ The Eastern Bays Shared Path Project presents an opportunity to integrate an efficient response to both of these issues.

Table 4-1: Recommended option performance against investment objectives (Source: Eastern Bays DBC)

Benefit	Investment Objective	
	Measure	Expected Outcome
To improve safety for pedestrians and cyclists	By increasing the perception of safety, as measured by the community survey	Achievement of continuous separated shared path facility for extent is expected to at least achieve target in safety perceptions (of respondents stating the facility is safe or very safe)
To improve the resilience of Marine Drive against rises in sea level and increases in large storm events	By reducing the total number of hours the road is swept (response / emergency sweeping only) – reducing the likelihood of an over-topping event	Currently only 14% (700m) of the seawall is re-directive. With the proposed solution, around 3km (+2.7km) will be re-directive or revetment, both of which will reduce incidence of material being deposited on the road, and the extent / duration of sweeping
To increase the numbers of pedestrians and cyclists	Increasing numbers of pedestrians and cyclists, as measured by daily counts	Economic evaluation in the DBC has estimated an additional 200 new users

4.2 Strategic Assessment

The 2018 Land Transport GPS identifies four priorities, these are listed as:

- Safety;
- Access;
- Environment; and
- Value of Money.

¹⁵ Eastbourne Community Survey (2014). <http://portal.huttcity.govt.nz/Record/ReadOnly?Uri=3688777>

Respondents were asked to rank their three top issues and also to identify the single most important issue for them. The completion of the Eastern Bays shared walk/cycle way was clearly the most important issue (number one for 33 percent of respondents) with concern about climate change and extreme weather events next (16 percent of respondents). Safety in the community, clean seas for swimming and quality public transport were also highly ranked. A number of other local issues were also identified. Since 2014, climate change has become a major issue nationally and globally so would expect this concern to have risen in the community.

Safety and Access are noted as the key strategic priorities, while Environment and Value of Money are listed as supported strategic priorities. An assessment of the Eastern Bays Shared Path was undertaken against the 2018 Land Transport GPS four priorities and this is included in Appendix A of this report. Overall, the proposed Shared Path aligns well with all four priorities of the GPS, particularly safety and access.

4.3 Economic Evaluation

An economic evaluation was undertaken as part of the DBC phase of the project, in accordance with NZTA's Economic Evaluation Manual (EEM) guidelines.

The economic analysis for the project included the following benefits;

- Health and environmental benefits for a cycling facility;
- Safety benefits for a cycling facility;
- Travel time benefits for a cycling facility; and
- Health and environmental benefits for a walking facility.

The key inputs involved in quantifying the health, safety and travel time benefits primarily revolve around the existing and future estimates of walking and cycling, coupled with length of the facility. These inputs and assumptions are outlined in the sections below.

4.3.1 Demand and Key Inputs

A number of base assumptions during the DBC phase were generated on limited survey data and made prior to further count surveys conducted by HCC in September 2017. The original DBC economics were therefore updated as part of this assessment to include the results of the more recent surveys undertaken, and include revised, more conservative, future cyclist projections.

Pedestrian Existing and Future Demand:

- A base of up to 100 pedestrians¹⁶ walking an average of 2.0km has been adopted. It considers that the Ferry service in Days Bay would provide a firm base of pedestrians each day. The normal pedestrian trip length in Wellington is 1.0km, but given the geographical constraints, it is estimated to be longer at 2km for this locality.
- A new user base of 60 pedestrians has been adopted from Walbran¹⁷, adjusted to account for the Shared Path width. This is considered to be conservative given the lack of consistent seaward facilities along the Eastern Bays.

Existing Cyclist Demand:

- A base of 110 cyclists per day has been calculated based on survey count data from Point Howard in September 2017¹⁸.
- The number of cyclists per day was determined by scaling up the raw count data, presented in Figure 4-1 below, based on the Cycle Network and Route Planning Guide (CNRPG) methodology. The CNRPG methodology provides adjustment factors for day of the week, seasonal patterns, weather and the under-reporting factor for automatic tube count data.

¹⁶ Pedestrian survey count data is limited. Short term partial day counts in 2015 however did record over 15 pedestrians in the morning peak at Sorrento Bay. As no consistent seaward facilities existing, current pedestrian base demand is assumed to be concentrated at the bays. The 2017 survey did not include pedestrians as this was an automatic tube count.

¹⁷ HCC Shared Path Funding Application (Walbran, 2015).

¹⁸ The DBC phase assumed a base of 77 cyclists per day calculated based on survey count data (partial days) from Sorrento Bay in March 2015. Counts were completed during two weekday morning periods (Tuesday 10th and Thursday 12th; 6:30am – 9:00am) and a mid-morning weekend day (Saturday 7th; 10:00am – 12:00pm).

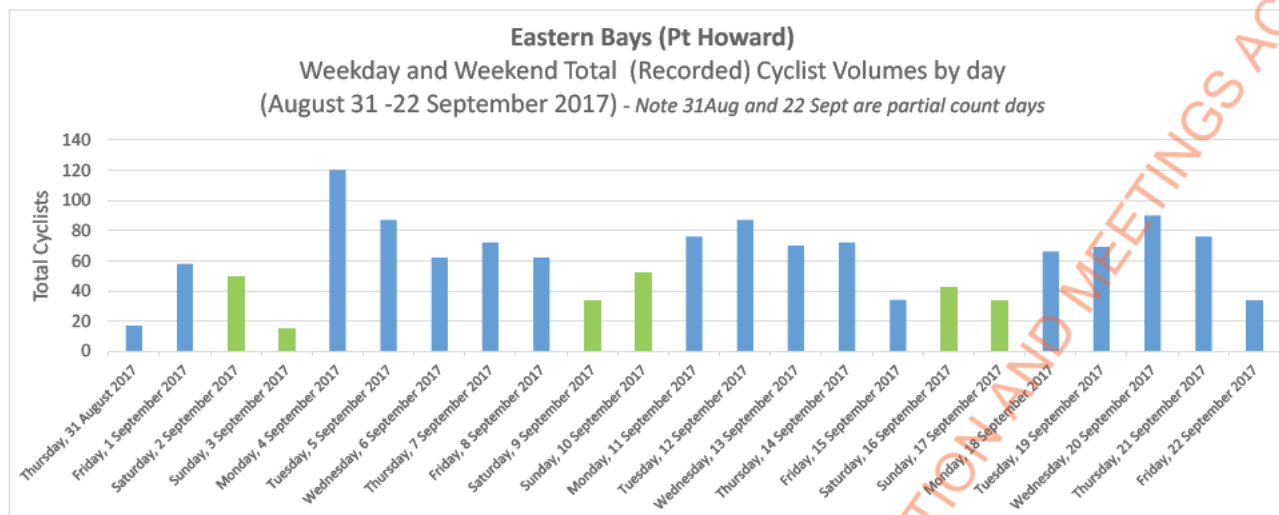


Figure 4-1: Eastern Bays (Point Howard) - Observed Cyclists Volumes 2017 (tube count survey)

Future Cyclist Demand

- The EEM cycle demand tool (Worksheet A20.1 of EEM) was used to predict new users. The new cyclists generated by this tool were estimated to be those in the immediate Eastbourne catchment. This equates to approximately 50 new local cyclists.
 - It is envisaged that significantly more users will come from further afar, in a recreational capacity, to cycle around the Great Harbour Way cycleway (or part of), the Remutaka Cycle trail loop and other planned new cycleways¹⁹.
 - The standard buffer area calculation of 50 new cyclists was assumed to account for all the commuter and work related cyclists, but less than half of the likely 'new' recreational cyclists. Therefore, if the 50 new local users generated by the cycle demand tool equates to 40% of the total new cyclists, there is an estimated additional 70 recreational users per day attracted from further afar (i.e. the remaining 60%).
 - This results in a total estimate of 120 new cyclists per day as a result of the Shared Path, as presented in Table 4-2 below.

Table 4-2: Estimated Existing and Future Usage

	Existing Use	Expected (new)	Total (existing and future)
Pedestrians /day	Up to 100	+60	Up to 160
Cyclists /day	110	+120 (50 local, 70 regional)	230
Total /day	Up to 210	+180	Up to 390

Pedestrian and Cyclist Growth

- NZTA Research Report 340²⁰ was used to estimate the appropriate growth rates for cyclists. Based on Census data, presented in Figure 4-2 below, a 4.5% growth in cyclist trips to work was recorded for Hutt City between 2006 and 2013.
 - The Hutt City growth rate has been adopted instead of the higher Eastbourne rate as a conservative approach (4.5% instead of 9.2%). This background cycling rate equates to a cycle growth rate 9.2% for a separated facility (Option 3.5m) based on RR340 methodology.
 - As the above growth rates are considered high to be sustained over a 40 year analysis period, staggered growth rates were adopted to account for uncertainty:
 - Opening to 15 years: 9.2%;**

¹⁹ Other Greater Wellington projects include i.e. Wainuomata Hill and the Beltway, Refer Figure 4-4.

²⁰ Research Report 340: Estimating Demand for New Cycling Facilities in New Zealand (NZTA, 2007)

- **Year 15-30:** 4.5% growth, reflecting census growth trends (Hutt City);
- **Year 30 onwards:** 2.1% growth, reflecting census national growth trends.
- A pedestrian growth rate of 1.0% has been adopted. Hutt City pedestrian growth was -0.9% between 2006 -2013 census data. Wellington pedestrian growth was 1.6%, so a conservative 1.0% was adopted for the economic analysis.

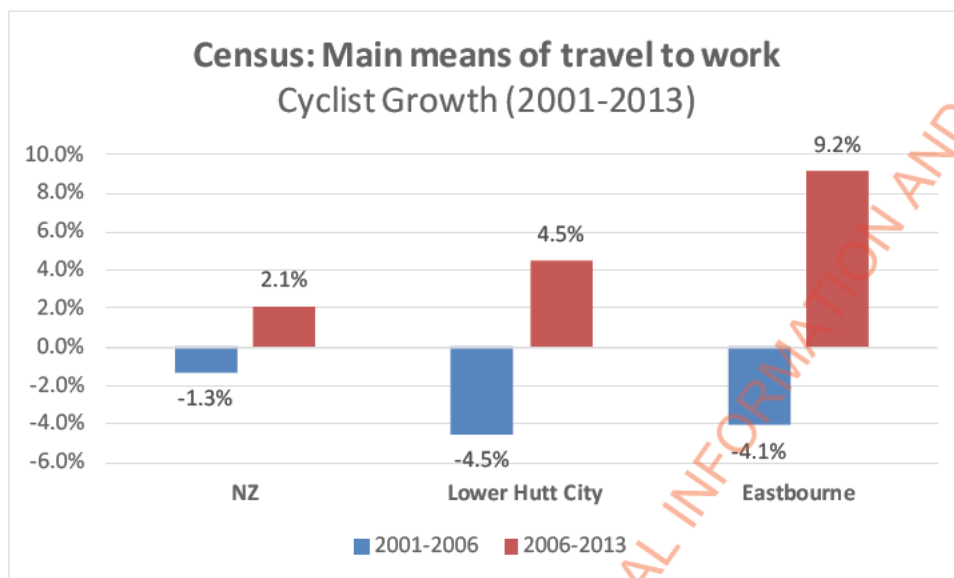


Figure 4-2: Census Cycling to work mode share – Historic Growth Comparison

Other Key Economic Inputs

- The length of the cycling facility is taken as 6.1 km. This is the distance from the southern section of the facility (near Wellesley College) to Marchbanks Street where the existing coastal path ends. The adopted length has been assumed to be a weighted average between the local users making average trips (3.0 km) and wider recreational users making longer trips (capped at 6.1 km to be conservative). This results in a weighted average cyclist trip length of 4.55 km²¹.
- The do-min cyclist travel speed of 13 km/h was adopted from Google Maps. A slightly faster travel speed of 18 km/h used for the option as typically wider separated facilities provide improved cycling levels of service (LoS).
- User travel time costs are adopted from Table A4.1 (a) of the EEM. For this project, a weighted average user cost has been calculated based on an estimated split of users across recreational, commuting and work travel purposes, as outlined in Table 4-3 below.

Table 4-3: Estimated Value of Time (\$/hour)

	Assumed % Split	Value of Time (\$/hour) (ped & cyc)
Recreational	80%	\$4.25
Commuting	15%	\$6.60
Work travel purpose	5%	\$21.70
Weighted Average	100%	\$5.48

²¹ With the introduction of eBikes and eScooters, the average distance travelled is also likely to increase. The introduction of this kind of transport means that the reach of the project is likely to be more than is stated above, which is therefore considered to provide a conservative evaluation.

4.3.2 Economic Analysis Summary

Table 4-4 and Figure 4-3 below provide a summary of cost benefit analysis of the proposed Shared Path, highlighting that the project has a positive benefit cost ratio, with the majority of the benefits relating to the health and environmental benefits of the facility.

Table 4-4: Economic Assessment

	Facility Health Benefits (Walking and Cycling)	Travel Time Benefits	Safety Benefits	NPV Total Benefits	NPV Costs	BCR	FYRR
Option 3.5m (2.5m beaches) – Updated cyclist counts and revised expected cyclists	\$10.7M	\$2.7M	\$0.6M	\$14.1M	\$10.7M	1.3	5%

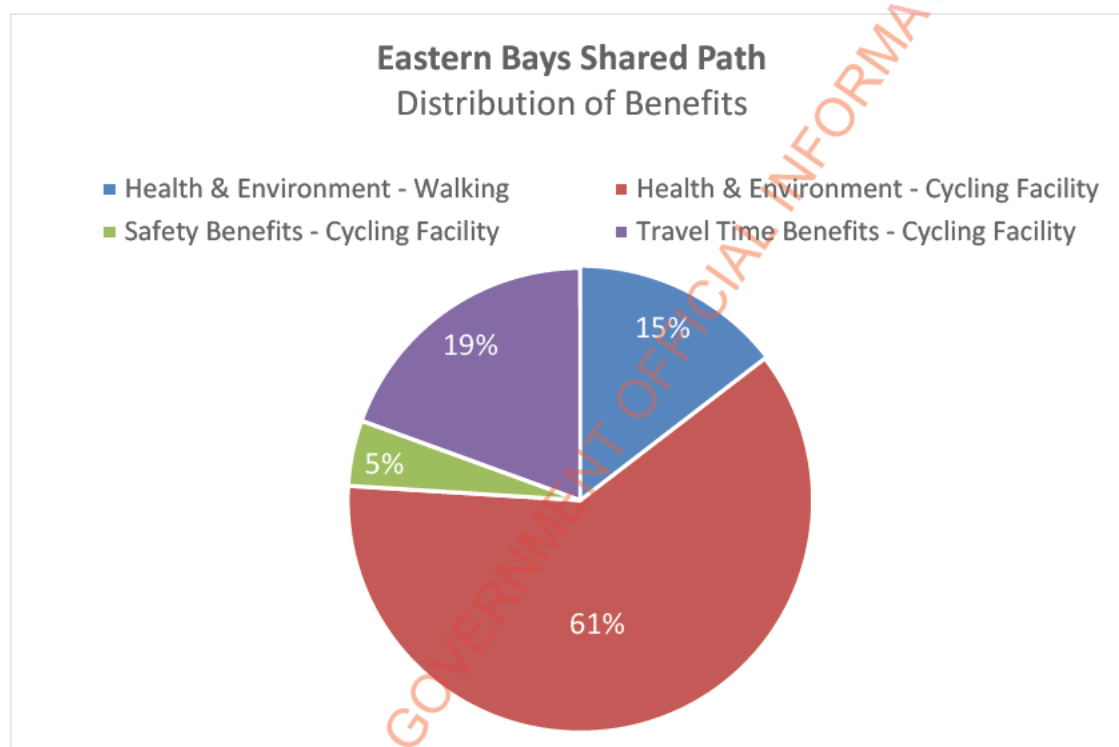


Figure 4-3: Eastern Bays Shared Path: Distribution of Benefits

The estimated cost of the project is \$14.3M²² with a Benefit Cost Ratio (BCR) of 1.3 and a First Year Rate of Return (FYRR) of 5%.

4.3.3 Sensitivity Analysis

Numerous assumptions and estimates are used when forecasting future project costs and benefits. A sensitivity analysis tests a range of scenarios using upper and lower bounds of key variables.

The analysis also adds rigour to the economic analysis and tests the validity of the results. A range of sensitivity tests have been undertaken for a number of assumptions for the recommended option only, with the results outlined in Table 4-5 below.

The results show that the BCR ranges from 0.7 to 1.8 with the project benefits being the most sensitive to estimated future cyclist volumes and cyclist growth rates. The only scenario which results in a BCR of less than 1.0 corresponds to a future estimate of only 50 new cyclists using the facility. This is considered to be unlikely based on similar projects both regionally and nationally.

²² Estimated cost as at the DBC phase (2017)

Table 4-5: Option Sensitivity Testing

Option 3.5m Sensitivity	Sensitivity – Low BCR		Base BCR		Sensitivity – High BCR	
	Low BCR	Note	Base BCR	Note	High BCR	Note
Capital Costs	1.0	Expected Estimate + 25% (\$17.9)	1.3	Expected Estimate (\$14.3M)	1.7	Base Estimate (\$11.3m)
Cyclist Volumes	0.7	+50 new cyclists: assume 100% are local users (no wider attraction)	1.3	+70 new cyclists: assume 40% local and 60% wider recreational users	1.6	+150 new cyclists: assume 25% local and 75% wider recreational users
Cyclist Growth	1.0	2.1% (NZ growth 2006-2013)	1.3	9.2% (0-15yr) 4.5% (15-30) 2.1% (30+)	1.6	9.2% (as per RR340)
Construction Time / Staged Implementation	1.2	48 months	1.3	24 months	1.4	12 months
Pedestrian Growth	1.3	0%	1.3	1%	1.8	2%
Future Pedestrian Volumes	1.2	+20 new peds	1.3	+60 new peds	1.8	+200 new peds
Travel Time Benefits (Cyclist Speed)	1.3	13 km/h (do-min)	1.3	18 km/h	1.3	20 km/h
Resilience – Storm recurrence interval	1.3	15 year recurrence	1.3	10 year recurrence	1.4	5 year recurrence

A number of benefits are not directly quantifiable. The sections below provide further commentary on key transport benefits, both qualitative and quantitative, ranging from safety to resilience. It is noted that the costs and benefits relating to beach nourishment have not been included in the economic evaluation.

4.4 Accessibility and Connectivity Benefits

4.4.1 Future Active Transport Network

The key driver for this project is to develop a safe and connected walking and cycling facility that will reduce reliance on private vehicles, as well as reducing the social exclusion felt by some of the communities along Hutt City's Eastern Bays, and to provide links to other parts of the wider network for commuting and recreational purposes.

Figure 4-4 below highlights how the Eastern Bays Shared Path Scheme will link to the wider transport network, providing connections to other nearby urban areas which serve as desired destinations for the commuter and recreational user.



Figure 4-4: Eastern Bays Shared Path Scheme – Context to the Wider Network

The Remutaka Trail loop is shown below in Figure 4-5, with the Orongorongo to Petone extension²³ outlined in dashed blue.

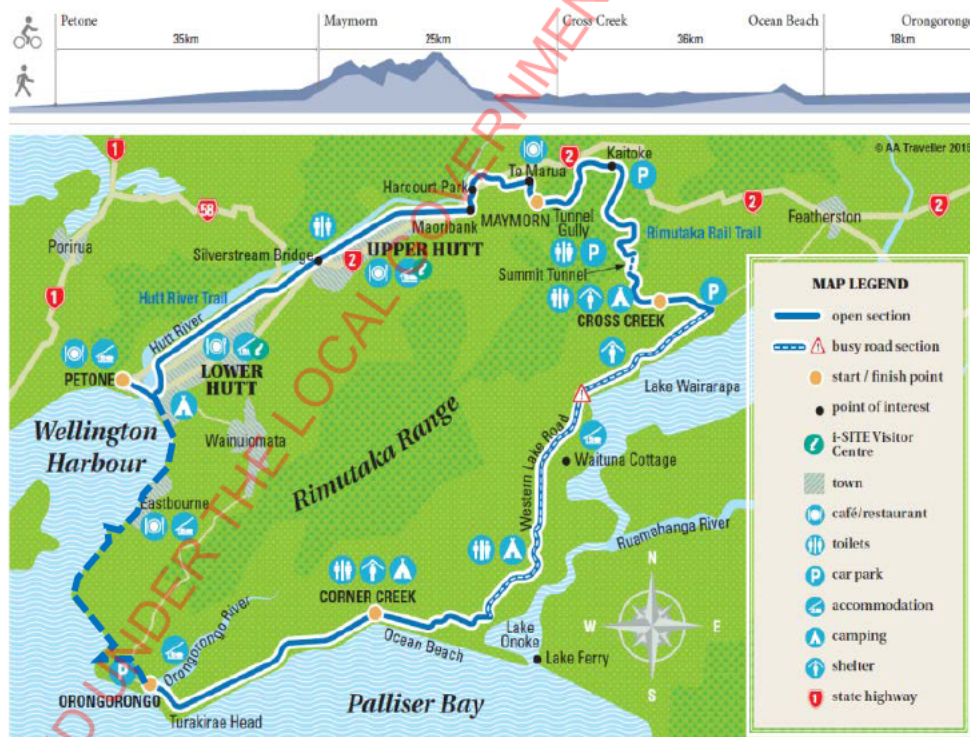


Figure 4-5: Remutaka Cycle Trail (Source: <https://wairarapanz.com>)

²³ <http://remutakacycletrail.co.nz/remutaka-rimutaka-cycle-trail-map/>

In August 2014, the Government announced the \$100 million Urban Cycleways Fund (UCF). This led to the \$333 million Urban Cycleways Programme (UCP) being implemented from late 2014 to June 2018. The programme, managed by the NZ Transport Agency (NZTA), provides increased investment to accelerate the delivery of cycling networks in main urban centres, and incentivises partners to increase their investment in cycling and walking projects.

The Eastern Bays Shared Path is one of the Lower Hutt Urban Cycleway projects funded from the UCF with further investment from Hutt City Council (HCC) being provided. The projects are shown on a map in Figure 4-6 below, the Eastern Bays project is labelled as 'B' on the map.

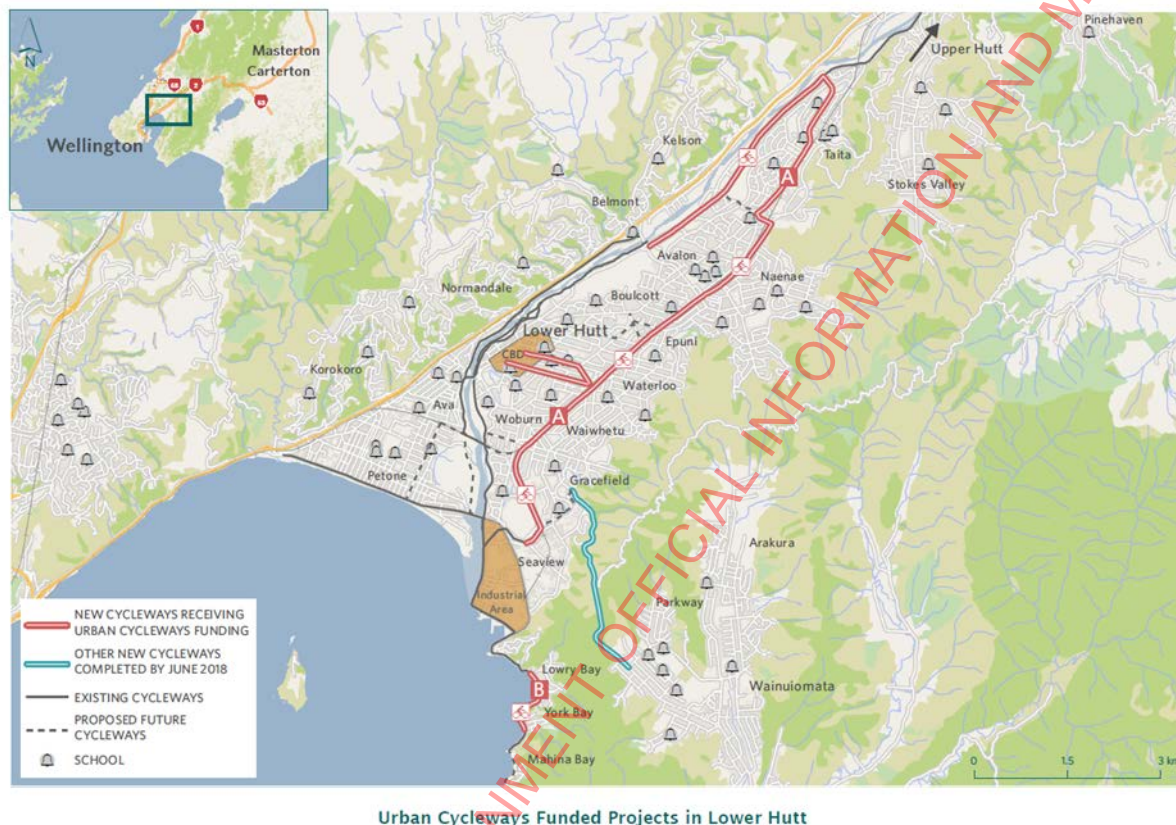


Figure 4-6: Urban Cycleway projects in Lower Hutt (Source: NZ Transport Agency)

The Eastern Bays project forms a key part of the Te Aranui o Pōneke (the Great Harbour Way) around Te Whanganui-a-tara, the harbour of Wellington. The proposed route links Fitzroy Bay in the east to Sinclair Head in the west.

4.4.2 Improved Network Accessibility and Connectivity Benefits

The project provides a safe and integrated network for commuting and recreational purposes and will form a key part of the GHW in Wellington. One of the objectives of the GHW is for it to become part of a wider network that connects communities and provides opportunities to showcase the natural, cultural and historical values of the harbour. It will therefore form part of a network with both regional as well as national benefits.

At the strategic level, the Eastern Bays Shared Path would play a key role in connecting the residential areas along Marine Drive to Hutt city centre and Wainuiomata district. From these better serviced urban areas, the Shared Path will form part of a comprehensive cycleway network within the Wellington region that connects Eastern Bays – Lower and Upper Hutt – Wellington – Porirua - Kapiti.

The connection to Hutt City also provides pedestrians and cyclists with the opportunity to access different modes of public / sustainable transport to complete the second leg of their journey, utilising the public transport services that are provided within Hutt City²⁴ (extensive bus network and a well-established Rail network).

²⁴ A journey that uses more than one mode of transport is known as a multi modal journey

The Shared Path has featured in past strategies and is a key project in providing a safe and integrated network for commuting and recreational purposes under the current strategy 'Walk and Cycle the Hutt 2014 – 2019, demonstrating the importance placed on walking and cycling schemes within the Hutt City region, as well as New Zealand as a whole.

The path is expected to offer alternative transport choices through which community cohesion can be enhanced, thereby providing amenity benefits and improving access to local facilities along the corridor. The Shared Path provides positive social outcomes which promote health and social well-being.

In addition, the path will be uniquely located to provide access to the Ferry terminal at Days Bay, for both commuter and leisure users. The Ferry terminal located at Days Bay provides harbour links to Seatoun Wharf, Wellington City and Sommes Island. Therefore, commuters could utilise the Shared Path to access the Ferry, which they could then use to gain access to Wellington City. The leisure user on the other hand may use the path as an end of trip attraction, or to use this as part of their overall journey, to access the Ferry Terminal and then travel to one of the other locations. The Ferry service at Days Bay therefore provides an extremely unique travel option as well as unlocking wider connections to other parts of Wellington.

The economic evaluation estimates that there will be approximately \$2.7M of cycling travel time benefits introduced from the scheme over the 40 year analysis period. The travel time savings relate to the increased attractiveness of the Shared Path coupled with the improved level of service, enabling an average cycling speed increase compared to the existing situation.

4.5 Mode Shift – General, Multi modal and Positive Environmental Outcomes

The fundamental aim of the Shared Path is to increase the number of active users present along Marine Drive. The new path will provide a substantial improvement on the current facility (which has an inconsistent width and is of variable quality and suitability for both pedestrians and cyclists) and will provide a valued community asset.

As outlined in Section 4.3.1, as a result of the proposed Shared Path, pedestrian and cycle trips are expected to increase along Marine Drive. Whilst some of these trips will represent existing trips, a large proportion are expected to be new trips upon the network, with some of these trips likely to result from a mode shift (i.e. people who once completed their journey by private vehicle, will now be completing their trip by either walking or cycling). This mode shift will be predominantly felt with the commuter traffic cohort, traditionally present on the road network during the busiest times of the day (morning and afternoon).

With the introduction of battery powered rental devices such as eBikes and eScooters²⁵, the potential for longer commuter and recreational journeys could be realised. With the connection to the Great Harbour Way scheme, it is considered that residents of the Eastern Bays area could utilise these devices for journeys further afield than would otherwise be the case on foot or when using a more traditional form of bicycle.

In addition to a complete mode shift (i.e. people who previously drove that now walk/cycle), the path will also encourage a multi-modal shift. For example, if a resident of the Eastern Bays area wishes to access Wellington for work, they may not want to walk/cycle to whole way due to the significant distance required to travel to complete this journey. It is valid to assume that people may walk / cycle from the Eastern Bays area, to a point where public transport provisions are more regular and or provide access to a larger catchment area, to complete the rest of their journey by rail or bus.

It is also reasonable to assume that tourists, particularly those visiting areas such as Days Bay, may prefer to walk or cycle along the Marine Drive rather than to drive, either via a total mode shift or a multi-mode shift. The presence of a Shared Path would encourage this type activity along Marine Drive which provides spectacular views of Wellington Harbour along its length. In addition, it is also reasonable to assume that users of the Remutaka Trail, the Great Harbour Way and other local routes, refer Figure 4-5, would be attracted with the introduction of improved cycling facilities. Therefore, walking and cycling may be considered a more desirable mode of transport to appreciate this area as a local amenity.

Providing a mode shift away from the private vehicle, towards the more active and sustainable travel options of walking and cycling will have a direct impact on reducing the levels of CO₂ emissions produced

²⁵ Lime eScooters are now available in Lower Hutt and Upper Hutt. <https://www.stuff.co.nz/national/109351561/lime-escooters-arrive-in-the-wellington-region>. The battery-powered scooters can travel up to 27kmh and have a maximum range of 48 kilometres. They can be used on the footpath and road.

by the use of the high carbon emitting private vehicle. Reducing the number of vehicles that are present along Marine Drive will further encourage walking and cycling as the perception of safety increases.

The reduction in the use of the private vehicles brings a reduction in the overall congestion on the local road network. Whilst Marine Drive is seen to operate well within capacity, Hutt City and Wellington do experience congestion, particularly during the AM and PM network peaks. Removing even a small proportion of private vehicle trips, by way of encouraging a mode shift, will therefore have a positive knock-on effect of reducing congestion by reducing the overall demand on the local road network.

The environment also plays an important role in shaping habitual behaviour patterns such as walking behaviour. The aesthetics of the local environment, the convenience of facilities for walking (footpaths, tracks), accessibility of places to walk to (shops and beach), level of traffic on roads, and composites of environmental attributes have all been found to be associated with walking for particular purposes resulting in increased physical wellbeing²⁶. The provision of the shared footpath is expected to further encourage people to make walking and cycling part of their weekly routine. The separated nature of the facility is expected to encourage walking and cycling to school.

4.6 Health and Environmental Benefits

Providing infrastructure along Eastern Bays to promote the use of active transport modes is a recognised way of improving the overall health and wellbeing of individuals who choose to take advantage of the facility. An increase in safety (perceived or actual) and increased connectivity enhances social well-being in the community by bringing people together and sharing experiences. Studies have shown that with an increase in exercise on a weekly basis there is a corresponding increase in overall health of the individual, both from a physical and a mental perspective²⁷.

Therefore, the Eastern Bays Shared Path project provides a great opportunity for the residents within the Eastern Bays area and further afield, to increase their cardiovascular outputs through the use of the Shared Path, reaping the health benefits resulting from the increase in exercise.

The economic evaluation indicated that the vast majority of benefits, approximately \$10.7 Million or 75% of the net benefits, are attributed to the health and environmental benefits resulting from the increased number of cyclists and pedestrians expected to use the facility.

A recent submission to the HCC Long Term Plan 2018-2028 by the Doctors for Active Safe Travel (DAST) provided a summary of the key health benefits of active transport²⁸. The section below provides a snapshot of their key findings.

In high and middle-income countries, physical inactivity has become the fourth leading risk factor for premature mortality due to the increases in disease and ill-health associated with inactivity²⁹. Declining rates of functional active travel have contributed to this population level decrease in physical activity, and evidence suggests that rising levels of obesity are more pronounced in settings with greater declines in active travel.

A recent 5-year prospective study of over 250,000 people (median age 52), published in the British Medical Journal³⁰, found that cycling reduced:

- The risk of all-cause mortality by 41%;
- The risk of any cancer by 45%; and
- The risk of cardiovascular disease by 46%.

The relationship between exercise and relative health risks is highlighted Figure 4-7 below:

²⁶ Regional Public health, 2010. Healthy Open Spaces: A summary of the impact of open spaces on health and wellbeing. Regional Public Health Information Paper, March 2010, Lower Hutt.
<http://www.rph.org.nz/content/f4c7f1f1-0945-42c0-8498-6890f099b5b6.cmr>

²⁷ *Physical Exercise and Psychological Well-Being: A Population Study in Finland* Journal of Preventative Medicine, Vol 30, Issue 1, January 2000

²⁸ Doctors for Active, Safe Transport, 2018, Submission to the Lower Hutt City Council on the Long Term Plan 2018-2028

²⁹ World Health Organization, 2010, Global recommendations on physical activity for health.

³⁰ British Medical Journal, 2017, Association between active commuting and incident cardiovascular disease, cancer, and mortality: prospective cohort study

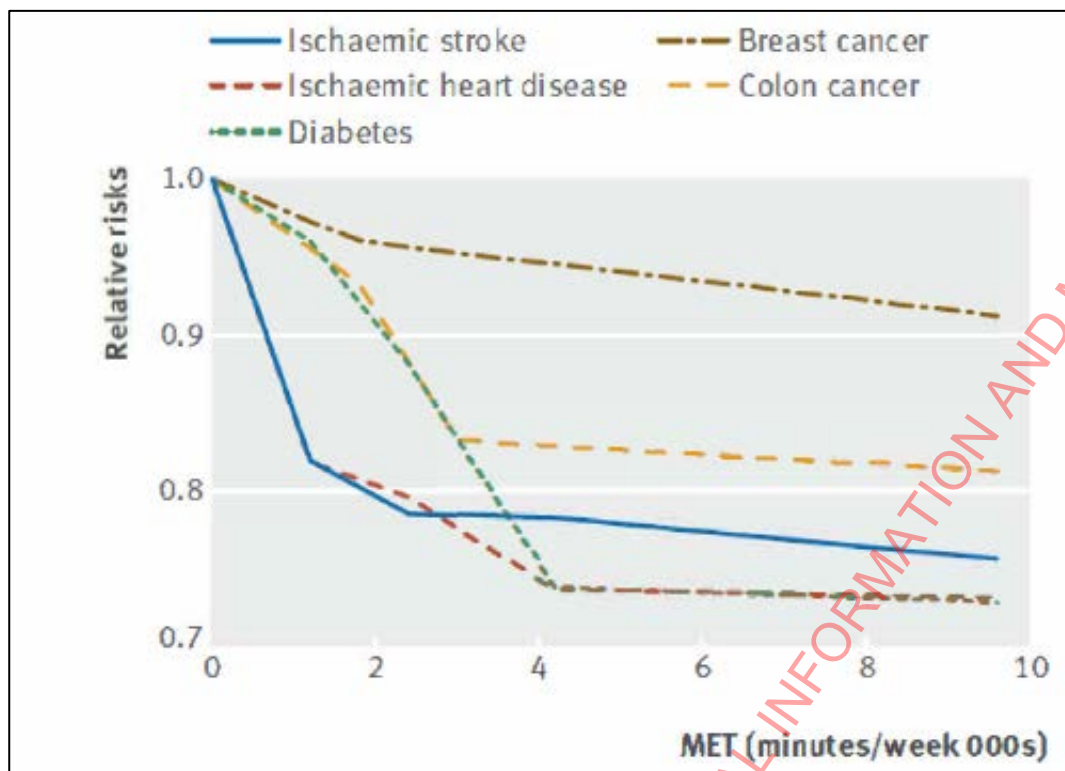


Figure 4-7: Health benefits of exercise³¹

With the introduction of the Shared Path, comes the opportunity to allow people to travel to work and / or social events by walking or cycling. Rather than becoming an additional task that is required through the day, this becomes part of their daily schedule. For example, providing someone with the option to travel to work via the Shared Path may take them an hour a day (30 minutes in each direction). Over a week, this would amount to an additional five hours of exercise they wouldn't otherwise achieve, resulting in all the associated health benefits of exercise, without a significant impact to their daily schedule.

The provision of the Shared Path also provides a free, easily accessible social activity for all users, both residents and leisure users. With great views across Wellington Harbour and good amenities provided at Days Bay, it is not unreasonable to assume that people would use the path for recreational purposes. These users would therefore also benefit from increased cardiovascular output and the health benefits associated with this, that they would otherwise miss out on if they were to complete the same journey using a private vehicle.

4.7 Safety Benefits

When infrastructure is designed and implemented, one of the fundamental goals underpinning design is safety. In terms of road safety, the key to providing a safe environment is to reduce the chance of death and serious injury from occurring as a result of the overall design and interaction of users. In the case of Marine Drive, whilst there is not a strong correlation between vehicle and vulnerable road user (VRU) crashes³², whenever vehicles and VRUs are forced to share road space, especially in a higher speed and constrained environment, it is only a matter of time before a death or serious injury crash occurs. Vulnerable road users are much more susceptible to sustaining injuries categorised as serious or higher due to the lack of protection when compared to travelling in a motorised vehicle.

The most effective way to reduce the chance of crashes between vehicles and VRUs occurring is to separate the two user groups, which the Shared Path achieves successfully. Whilst the potential for a crash

³¹ British Medical Journal, 2013, Physical activity and risk of breast cancer, colon cancer, diabetes, ischemic heart disease, and ischemic stroke events: systematic review and dose-response meta-analysis for the Global Burden of Disease Study

³² Due to the low levels of pedestrians and cyclists currently using Marine Drive and the perceived safety risk

involving a vehicle and a VRU is not removed entirely³³, the probability of this scenario occurring is significantly reduced under the proposed scheme.

Based on the estimated existing and future users, the economic evaluation estimates that there will be approximately \$0.6M of cycling safety benefits introduced from the scheme over the analysis period.

A key intangible benefit of a separated Shared Path is the reduction in perceived risk. The proposed Shared Path removes pedestrians and cyclists from the live carriageway to an area in which they feel much safer. Whilst it is still possible for crashes to occur between pedestrians and cyclists, due to the shared use nature³⁴ of the path, the rate of incidence is not considered to be significant due in part to the proposed path width of up to 3.5m. Research has also shown that there is a safety in numbers³⁵ effect with cycling facilities; where, as the numbers of cyclists increases, the crash rate decreases. Due to the speed differential between pedestrians and cyclists also being much lower, if a crash does occur, the severity of the crash will be significantly lower than if a vehicle was involved.

4.8 Resilience Benefits

With the introduction of the Shared Path comes the opportunity to construct, upgrade or repair some of the adjacent seawalls. Some areas of seawall have been identified as ineffective or reaching the end of their operational lifespan. Therefore, these seawalls cannot provide sufficient protection against wave over-topping events or undermining to the foundations of the road itself occurring. Therefore, Marine Drive is particularly vulnerable to road closures and delays. Road closures and/or reduced operation results in both social and economic impacts to the Eastern Bays community³⁶. Over time sea levels are forecast to rise, aggravating the situation. The Ministry for the Environment (MfE) (2017) projections³⁷ forecast a 16 cm sea level rise by between 2030 and 2040 (depending on global emissions trajectories). Further sea level rise will increase the frequency of all coastal inundation with sea level rise of 0.5 m forecast to be reached sometime between ~2070 and ~2110³⁸ and sea level rise of 1.0 m sometime after ~2115.

Key infrastructure services, including the main outfall sewer pipeline (MOP) is located within the road corridor and has been identified as being particularly susceptible to damage if appropriate protection is not provided. The continued protection of this amenity is therefore considered a high priority for the Eastern Bays community.

The project will improve the current and short-term resilience of Marine Drive through the deflection of wave energy. In turn, the following benefits will be experienced:

- Reduced economic costs from road closures and delays;
- Reduced clean-up costs;
- Better protection of vulnerable underground amenities; and
- Increased protection against existing and future storm events.

It is acknowledged that this project will not be the final solution to addressing the problem of sea level rise, rather, this project provides a fundamental building block in the process to better equip Marine Drive against sea level rise, whilst also buying some time to understand what the future, longer term solution may look like.

³³ Under the unlikely circumstances, a vehicle could still leave the carriageway and enter the shared path and vice versa for a pedestrian / cyclist. Further, it is expected that a proportion of the commuter 'strong and fearless' cyclists will continue to cycle on-road.

³⁴ The path is shared use in nature, this will reduce the overall speed that cyclists choose to travel at as they will be aware of potential conflict with other users

³⁵ Predicting Accident Rates for Cyclists and Pedestrians, NZTA Research Report 289

³⁶ HCC Eastern Bays Road Resilience Funding Application (Walbran, 2015) noted that the June 2013 storm event cost HCC \$280,000 and that these events could expect to occur every three years with sea level rises. This economic evaluation for Eastern Bays adopted the same storm cost; however, is much more conservative by estimating the frequency at every ten years. The recommended option, with the improved seawalls, were assumed to result in a significant reduction in the storm costs compared to the do-minimum.

³⁷ Ministry for the Environment Coastal Hazards and Climate Change Guidelines, 2017.

<http://www.mfe.govt.nz/publications/climate-change/coastal-hazards-and-climate-change-guidance-local-government>

³⁸ At which point current 100-year storm events are expected to occur on average, once a year.

4.9 Other Benefits

The Recreational Assessment Appendix K of the resource consent application considers the community and personal wellbeing, tourism and recreational benefits of the proposed Shared Path.

Due to the physical aspect of walking and cycling, people often start a walk with the end goal of purchasing refreshments in the middle or at the end of their journey. With this in mind, it is safe to assume that with an increase in the number of pedestrians and cyclists along Marine Drive, this will likely have some commercial benefit to local businesses (as more customers are attracted to the area than is currently the case and will inevitably spend money - although this not readily quantifiable).

It has also been noted that a plan to see some 200 mountain bike trails improved across the Wellington region – from Kapiti to central Wellington, to Wairarapa and Hutt Valley – was released in 2018³⁹. These trails are to be mapped, sign-posted and advertised with the Department of Conservation grades of difficulty. The three to five year overhaul is expected to increase the level of tourists coming to the Wellington region specifically to cycle. Therefore, it is considered that there is significant potential for the Eastern Bays project to encourage and open up further opportunity for this kind of user to gain access to some of the trails within the area. The Eastern Bays region will subsequently reap the rewards in terms of increases in economic output.

³⁹ Stuff Article, November 2018: <https://www.stuff.co.nz/travel/news/108918276/come-for-the-coffee-stay-for-the-mud-wellingtons-trail-overhaul>

5. Transport Impacts and Mitigation

As with any infrastructure improvement project, the local road network will experience some impact, ranging from construction effects to longer term impacts such as managing greater demand.

Potential transportation impacts to be experienced on Marine Drive as a result of this project, along with potential mitigation measures, are outlined below.

5.1 Construction Impacts

Disruption during the construction of the Shared Path will be inevitable and unavoidable with the requirement for temporary traffic management and lane closures throughout the scope of the works, to construct the seawalls and Shared Path.

During construction, there will be an increase in traffic movements to and from the construction sites. Given that Marine Drive has a relatively narrow carriageway and there is limited access to the seawalls, it will be necessary to close one lane of traffic at certain times during the construction. This will consequently impact upon the accessibility of pedestrians and cyclists as well as impact on the journey times of vehicles.

The limited and informal parking in the Eastern Bays, coupled with the increasing parking demand from contractors, could result in a parking shortage within the area that construction is taking place.

5.1.1 Mitigation

An indicative construction programme for the project will be developed to mitigate the impacts during construction period as much as is practicable. The programme is developed to understand the duration of the project to enable a better understanding of cost; to recognise the potential complexities in the construction programme, allowing identification of potential opportunities and to recognise the critical path activities; and to mitigate potential effects on the environment and community. This programme will be incorporated into the Construction and Environmental Management Plan (CEMP) to be prepared as a condition of the consent.

The construction will likely be staged over a longer period (possibly up to six-years), completing each bay in totality to provide consistency and completeness in each bay and to avoid the risk of small inconsistencies arising, given the methodologies of different contractors which may undertake the work across successive years. Each section is likely to take about 3-6 months (depending on bay length, season of work and complexity) to complete.

Currently it is proposed to complete Windy Point first, followed by Point Howard/Sorrento, and then Lowry/Whiorau Bay, over three separate financial years. This will be followed by the other Eastern Bays. The construction of the first stage of the project should commence in 2019. The staged implementation is subject to change following further discussions with HCC and confirmation of funding availability. The residents living within the construction area will also be informed and consulted on construction schedules.

Minimising the impact for all road users and the community will be imperative and this will need to be balanced with providing access for construction vehicles. The timing of works will also need to consider the tides, as most works in the foreshore will likely need to be done at low tide, so the combination of low tide and off-peak traffic will limit the window for construction works to be carried out.

5.2 Operational Impacts and Mitigation

As outlined above, the intention is for the works to be done in stages with contracts being let for one bay at a time on an annual basis. Therefore, disruption to traffic (and other modes) will only be over a short geographical distance, typically with partial closures only, and for a short duration. This approach enables greatly flexibility to adapt and adjust mitigation measures for the range of impacts outlined below.

5.2.1 Asset Management

The main implication for ongoing maintenance is the clearing and cleaning of storm debris from the path and along the Shared Path separator. However, constructing seawalls that reflect wave energy (such as single and double curve walls), as well as options that provide additional height in the future will reduce incidences of overtopping during storm events and high tides during both existing and future storm events.

Resurfacing of a carriageway with an adjoining separated Shared Path is more complicated due to the separator that forms an obstruction. However, the lifespan of a Shared Path is longer than the adjacent traffic lanes due to reduced loading and will require resurfacing less often. Increased road marking

(including green paint across accesses), signage and barrier maintenance will add increased asset management costs for this corridor.

A further long term benefit of the Shared Path, compared to the existing situation, is the likely reduction in maintenance costs if a storm event was to occur, where the debris would likely impact the Shared Path itself (rather than the traffic carriageway), reducing sweeping and traffic management costs.

Therefore, the net increase in long term maintenance costs are expected to be negligible.

5.2.2 Parking

Parking will be retained where possible adjacent to the Shared Path on the seaward side – however some informal parking will inevitably be lost due to limited space availability. There are existing formal parking areas at Point Howard - Seaview Terminal side and Point Howard (landward side at the ablution building), Whiorau Reserve (Lowry/Whiorau Bay) and Days Bay. This parking will remain and is unaffected by the Shared Path.

There are a number of areas along Marine Drive where there is additional shoulder width used for informal parking, most notably at Point Howard and Windy Point. In some locations, this shoulder width will be reallocated to provide for the Shared Path, reducing the extent of beach encroachment and minimising changes to the shoreline.

While there may be some reduction in seaward side informal parking areas, improvements to the remaining parking areas are proposed. Parking areas will be formalised at Point Howard and Windy Point (both currently perpendicular or angle parking) and spaces will be re-oriented to angle and parallel parking respectively. This will provide safety benefits for road users, maximising the parking space numbers in the available space.

Furthermore, it is considered that the Shared Path may even reduce the requirement for on-street parking provisions with some prospective users. With the presence of the path, people who may have originally visited the Eastern Bays area within their private vehicles now have the opportunity to do so by walking or cycling. It is a reasonable assumption that a number of vehicle trips and associated parking demand will be removed from the local road network as these road users will now choose to walk or cycle.

5.2.3 Safety

5.2.3.1 Crossings

The crossing demand is expected to increase with the number of pedestrians and cyclists attracted by the facility.

The separators between the Shared Path and traffic lane will feature regular gaps, providing space for pedestrians and cyclists to cross to the landward side ensuring connectivity between the Shared Path and likely trip attractors located along the landward side of Marine Drive.

At the southern extent of the path, a transition point will be provided for southbound cyclists to cross the carriageway and continue their journey, albeit on the traffic lane and shoulder. Pedestrians have access to a board walk along the shoreline at Days Bay.

At the northern extent of the works, an existing Shared Path currently terminates at the Seaview Terminal at Point Howard on the seaward side. The new Shared Path will be integrated into the existing path, and pedestrians and cyclists will not need to cross the carriageway.

An existing zebra crossing at Point Howard provides the only formal crossing point within the scope of works. No additional formal crossing points are proposed for this project. Additional guidance signage will be considered in the detail design phase.

5.2.3.2 Bus Operation and Shelters

Marine Drive is serviced by bus routes 81, 83 and 85, linking Eastbourne to Wellington CBD via Petone (route 85 also services Lower Hutt). Each weekday there are 95 bus movements on the corridor, with buses operating between 6am and 11pm. No changes to the bus route or frequency of buses will be required, however minor modifications or relocations to some bus stop locations are proposed. For example, it is proposed to move the bus stop at Mahina Bay fifty metres south, to avoid further encroaching onto the useable beach space at this bay.

Potential conflicts of Shared Path users at bus stops will need to be managed. The Shared Path will be diverted behind the bus shelters in all locations along the project length. This is best practice design when integrating shared paths / cyclists with bus stops. Line marking and signage will be used to highlight areas of potential conflict to minimise the safety risk. However, the proposed Shared Path along the foreshore will

substantially improve pedestrian safety and access to and from the bus stops along the route for visitors and local residents.

Any movement of bus stops, or redesign of shelters will need to be approved by Greater Wellington Regional Council.

5.2.3.3 Side friction

Intersections linking to Marine Drive are located on the landward side of the corridor, minimising the conflict between turning vehicles and Shared Path users. However, there are a few isolated locations where vehicles will need to cross the Shared Path. These include:

- Lowry Bay - parking area and boat ramp at the Whiorau Reserve at the southern end of Lowry Bay
- Point Howard – cyclists must cross both legs of a loop road access to Point Howard terminal. Sightlines may be compromised by a large rocky outcrop adjacent to Marine Drive.

These conflicts will be considered further during the detailed design stage and could include mitigation measures such as coloured surfacing to highlight conflict areas to road users.

5.2.3.4 On-road cyclists

While the aim of this project is to provide a safe and connected walking and cycling facility, it is inevitable some cyclists will continue to ride on Marine Drive. Given the challenges and constraints in obtaining the additional width for the Shared Path, it is not feasible to provide further width for on-road cycling. As such, more confident cyclists will need to use the traffic lane or the Shared Path.

6. Summary

This assessment has detailed the existing situation that is present along Marine Drive, along the eastern perimeter of Wellington Harbour in an area known as the Eastern Bays in Hutt City. It has been concluded that the existing infrastructure provides insufficient amenities to support and encourage walking and cycling at present. Through the process of optioneering, a proposed scheme has been developed which provides a shared use walking and cycling path, whilst at the same time, supporting seawall upgrades and repair.

The introduction of the proposed scheme is expected to result in a number of positive benefits including:

- An improvement in the actual and perceived safety of pedestrians and cyclists along Marine Drive;
- Improved resilience against climate change, sea level rise and existing and future storm events through proposed seawall improvements;
- Improved social connectivity and opportunities and improved accessibility for the residents of Eastern Bays – within individual bays, between different bays, to and from Lower Hutt and beyond and to other cycle routes;
- An increase in modal shift away from the private motor vehicle towards more sustainable choices of transport, including; walking, cycling, public transport and a mixture of all of these. This results in positive environmental impacts, including; a reduction in CO2 emissions, improved noise and air quality and a reduction in network congestion;
- Positive individual health benefits through increased daily activity; and
- Localised economic improvements and increased business for local suppliers of goods and services, particularly through increased tourism activities.

As well as the benefits the scheme will impart, the potential transport impacts have been considered. Overall the transport impacts are considered minor in nature. It is considered that these impacts can be managed or mitigated and do not pose a significant deterrent to the overall project, the potential impacts include:

- Temporary construction traffic impacts;
- Marginally increased maintenance costs;
- Reduction of informal parking; and
- Increased crossing demand relating to the seaward path and the landward amenities.

Overall, from a transportation perspective, the provision of a Shared Path along Marine Drive is considered to provide significant benefits to the local community and users from further afield. The benefits are considered to substantially outweigh the outlined, predominantly short-term impacts (which are able to be mitigated or managed).

Appendices



RELEASED UNDER THE LOCAL GOVERNMENT OFFICIAL INFORMATION AND MEETINGS ACT 1987

Appendix A Strategic Assessment against the GPS

Eastern Bays Shared Path assessment against the 2018 Land Transport GPS

The earlier investigation stages of the Project (Indicative and Detailed Business Cases) were previously assessed against the 2015 Land Transport GPS. With a new Government sworn into office in October 2017, they set upon creating a new Land Transport GPS to match their priorities and direction.

The following information outlines an assessment of the Project against the four priorities of the 2018 Land Transport GPS (herein referred as the "GPS"). The four priorities are; Safety, Access, Environment and Value for Money. Safety and Access are noted as the key strategic priorities, while Environment and Value for Money are listed as supporting strategic priorities.

1. SAFETY

Objective: *A land transport system that is a safe system, free of death and serious injury.*

Paragraph 37 states that "... GPS 2018 supports investment towards improving the safety of cyclists and pedestrians. Improving the safety of cycling and walking is a key part of improving accessibility and uptake of cycling and walking as preferred transport modes. It also enables transport choice".

- The Project meets this objective by providing a separated Shared Path facility for active modes and vulnerable users, of a consistent width and standard of design.

2. ACCESS:

Objective: *A land transport system that provides increased access to economic and social opportunities.*

Paragraph 58 states that "The transport system contributes to liveable cities by providing easy and efficient access and effective transport choice. This requires roads, rail, public transport, walking and cycling networks to work together to increase access to opportunities."

- The Project enables greater transport choice for Eastern Bay residents by providing a walking and cycling Shared Path where provision is currently extremely limited. Any users who switch mode choice from private vehicle to cycling (or walking) are helping improve access for the remaining vehicular traffic by reducing congestion levels.

Paragraph 69 states "Creating spaces within the streetscape that are attractive and safe for people to sit, gather and walk and cycle supports the objectives of creating a safer and more accessible network, as well as key outcomes around improving health and well-being".

- The Project creates a safe and attractive foreshore Shared Path for people to use. There are also improvements to foreshore access through new and improved steps included as part of some seawall sections. The facility should attract users to walk and cycle along it, which will help to improve their health and well-being.

Objective: *A land transport system that enables transport choice and access.*

Paragraph 87 states "Walking, cycling and public transport are very important in supporting an efficient, sustainable and affordable transport system. Enabling more people to use active modes and public transport can also contribute to improved health outcomes as people regularly incorporate active travel into their daily life, increasing levels of physical activity".

Paragraph 92 states "GPS 2018 supports investment in: provision of good quality, safe, fit-for-purpose walking and cycling infrastructure".

- The entire premise of the Project is to improve walking and cycling facilities for the Eastern Bays residents and for those users from further afield to use this popular and picturesque coastline. Longer term the Eastern Bay Shared Path will connect into the 'Great Harbour Way', which creates a walking and cycle route around Wellington harbour

Objective: *A land transport system that is resilient*

Paragraph 103 states "GPS 2018 prioritises investment to improve resilience on routes where disruptions pose the highest economic and social costs. This also includes investments to improve resilience to gradual change (e.g. erosion and sea level rise) and high impact events of low to medium probability (e.g. earthquakes)".

- While the Shared Path route from Eastbourne to Petone / Lower Hutt would not classify as a route that imposes the highest economic and social costs (due to the small population), by building the improved facility and the necessary seawall improvements, it provides improved resilience against the gradual change of sea level rise (and has been designed with future adaptability provision to raise the seawall level). This in turn provides much improved resilience for the adjoining road corridor, which will benefit from less disruptions due to washouts of the old seawalls currently.

Paragraph 106 states “GPS 2018 supports investment for the best solutions on the most critical transport routes, in regions that have only one viable route in and out, for example. This includes recovery activities for transport routes into and across North Canterbury and for urban areas such as Auckland, Wellington and Christchurch, which are vulnerable to high impact natural events”.

Paragraph 107 states “...This includes investment in non-transport infrastructure, such as flood mitigation infrastructure, where this has clear transport benefits and is used to improve resilience at the economically and socially most critical points of the network”.

- Marine Drive is the only road into and out of Eastbourne and the Eastern Bays south of Point Howard. Therefore, improved resilience of the transport network is generated by the seawall upgrade for the new Shared Path facility. The road corridor is susceptible to damage caused by wave action from high seas during a storm event.

3. ENVIRONMENT:

Objective: A land transport system that reduces greenhouse gas emissions, as well as adverse effects on the local environment and public health

Paragraph 116 states “...Enabling the transport sector to support better environmental outcomes involves minimising the adverse effects of transport”.

Paragraph 117 states “There are a range of investment and non-investment initiatives that can be used to address the environmental effects of transport. These include: promotion of active modes (such as new cycleways) and shared mobility”.

Paragraph 118 states “...It also means providing people with real alternatives to using cars, including convenient and safe access to public transport and safe, well maintained active transport infrastructure”.

- The Project is an upgraded shared path that is planned to increase the volume of cyclists commuting for work and leisure in the Wellington region.

Paragraph 121 states “There is a range of potential greenhouse gas abatement opportunities in the transport sector. These can be classified as opportunities to: ...shift to lower emissions modes of transport, such as public transport and active modes...”.

- It is envisaged that the improved Shared Path will encourage transport users to move to the emission-free modes of walking and cycling.

Paragraph 123 states “While greenhouse gas emissions and climate change have cumulative effects on a global scale, there is also a need to manage local effects of land transport. Some of the areas where transport has an adverse effect on the local environment and public health include: ...reduced water and soil quality (particularly from contaminated stormwater run-off and sediment during construction); disruption to natural landscapes, vegetation and biodiversity...”.

- With any new construction project there is the risk of sediment run-off, particularly a concern when working at the coastal waterline. A prerequisite of any construction management plan will be to include an in-depth strategy on how to counteract this during construction, so that construction related environmental effects are minimised and preferably removed.
- One negative environmental outcome of this project is the disruption to the natural landscape by the construction of new seawalls where currently none (or only minor / limited scale) exist, and which can include sections of coastal reclamation to provide space for the Shared Path. This will disrupt the aesthetics and use of the natural landscape at these locations.

4. VALUE FOR MONEY:

Objective: A land transport system that delivers the right infrastructure and services to the right level at the best cost

Paragraph 132 states *“Delivering the right infrastructure and services requires a wide range of options to be considered. It is expected that options that improve the performance of the current network are considered alongside options for providing new infrastructure where possible”*.

- The Project has been through the Indicative and Detailed Business Case procedures which considered a number of options for different width Shared Path facilities. All options were assessing the improvement of an existing cycle facility that was inconsistent in width and in some locations, not provided for at all. The project is forecast to deliver a positive economic return in terms of the investment required.

Wellington

Level 13, 80 The Terrace
Wellington 6011
PO Box 13-052, Armagh
Christchurch 8141
Tel +64 4 381 6700

Please visit www.stantec.com to learn more about how
Stantec design with community in mind.

*Hearing Before:
Greater Wellington Regional Council, and
Hutt City Council*

Resource Consent Applications

Being in relation to the proposed construction of a 4.4km long Shared Pathway along the seaward edge of Marine Drive, including reclamation of the Coastal Marine Area (CMA), disturbance and discharges to the CMA, demolition, construction and alteration of structures in the CMA, earthworks, and ongoing beach renourishment

DECISION REPORT OF INDEPENDENT HEARING PANEL

Dated: 5 March 2021

Result: The consents are granted subject to the conditions in Attachment 1.

Approved for release and publication on the websites of Hutt City Council and Greater Wellington Regional Council by Robert Schofield (Chairperson) while reserving the power to make minor corrections and amendments to the grant of resource consent if required under the Resource Management Act s133A. If that occurs the corrections will be published and circulated.

TABLE OF CONTENTS

1	Overview.....	1
1.1	Introduction	1
1.2	Roles and responsibilities of the parties	1
1.3	Report structure.....	2
2	Location and Proposed Works	2
2.1	Location and Existing Environment.....	2
2.2	Environmental Characteristics	3
2.3	Ecology	3
2.4	Eastern Bays Communities.....	4
3	The Project.....	4
3.1	The Problem Being Addressed	4
3.2	General Description of the Proposal	5
4	Regional and District Consents.....	6
4.1	Regional Consents Required	6
4.2	District Consent Required	7
5	Process Before Hearing.....	8
5.1	Consultation	8
5.2	Public Notification and Submissions	9
5.3	Pre-hearing Meeting	9
5.4	Commissioners' Minutes.....	9
5.5	Expert Conferencing	9
6	Hearing Overview	11
6.1	Hearing Schedule	11
6.2	Appearances	11
6.3	Submitter Appearances and Overview	12
6.4	Matters Out of Scope.....	14
7	Mana Whenua	14
8	Effects and Findings	16
8.1	Overview	16
8.2	Project Benefits and Positive Effects	16
9	Project Design.....	18
10	Ecology	22
10.2	Little Blue Penguins – Kororā	22
10.3	Effects on Oystercatchers	23
10.4	Seagrass	24
11	Other Ecological Effects	26
12	Coastal Processes.....	27
13	Construction Effects.....	28
14	Heritage Effects	29
15	Section 104(1)(b) Consideration of Statutory Instruments.....	30
15.1	New Zealand Coastal Policy Statement (NZCPS).....	30
15.2	Wellington Regional Policy Statement.....	32
15.3	Proposed Natural Resources Plan and Operative Regional Plans.....	33
15.4	Hutt City District Plan.....	33

16	Section 104(1)(c) Consideration of Other Matters	33
17	Section 104D – Non-Complying Activity	34
18	Sections 105 and 107 – Discharge and Reclamation	35
19	Part 2 RMA Assessment	36
19.1	Part 2 Analysis	36
19.2	Status of Planning Instruments	37
20	Conditions and Duration	37
20.1	Conditions	37
20.2	Duration	38
21	Decision	38
22	Acknowledgements	39

Attachment 1 Consent Conditions

Acronym/Term Definition	Definition
BNP	Beach Nourishment Plan
BPP	Bird Protection Plan
BSUDPs	Bay Specific Urban Design Plans
CEMP	Construction and Environmental Management Plan
CIA	Cultural Impact Assessment
CMA	Has the same meaning as 'coastal marine area' in section 2 of the RMA
EIANZ	Ecological Impact Assessment Guidelines New Zealand
GWRC	Greater Wellington Regional Council
HCC	Hutt City Council
LUDP	Landscape and Urban Design Plan
MHWS	Mean High Water Springs
MOP	Main outfall sewer pipeline
MWSG	Mana Whenua Steering Group
NZCPS	New Zealand Coastal Policy Statement
PNBST	Port Nicholson Block Settlement Trust
PNRP	Proposed Natural Resources Plan (Notified Version)
RCP	Operative Regional Coastal Plan
RMA	Resource Management Act
RPS	Regional Policy Statement
SLUR	GWRC Selected Land Use Register (SLUR)
SNR	Significant Natural Resource
SRHP	Seawall and Revetment Habitat Plan
SNR	Significant Natural Resource
TMP	Traffic Management Plan

1 Overview

1.1 Introduction

- 1.1.1 Our decision is to grant consent subject to conditions.
- 1.1.2 This report concerns a proposal to construct a 4.4 km Shared Pathway along Marine Drive in two sections; between Point Howard and the northern end of Days Bay, and the southern end of Days Bay (Windy Point) to Eastbourne (Muritai Road / Marine Drive intersection). The proposal includes reclamation and the construction of new structures in the Coastal Marine Area (CMA), and additions and/or alterations, replacement, and removal and demolition of existing structures (including seawalls, revetments, boat ramps, beach access structures and stormwater pipes). The proposal also includes beach nourishment to maintain the existing hightide beach that will be partially lost to enable development of the Shared Pathway.
- 1.1.3 The Project requires resource consents under the RMA, from both the Hutt City Council (HCC) and the Greater Wellington Regional Council (GWRC).
- 1.1.4 The statutory aspects of the proposal are initially outlined in Section 4 below. The granting of resource consents is a process under the Resource Management Act ("the Act" or "RMA").
- 1.1.5 Our reasoning and conclusions are contained in this report (also see Section 1.3 for an outline of the report structure).
- 1.1.6 To assist in our understanding of the environment and the Project, we undertook site visits on 26 November 2020 and on 27 January 2021. For both visits, we commenced at the Seaview wharf entrance and walked substantial parts of the coast, taking note of existing and proposed features along the way. We had information and equipment with us which enabled us to visualise and understand the proposed extent of encroachment of works onto the existing shoreline. We took particular note of aspects such as the presence of seagrass in Lowry Bay, existing bus shelters, the currently available existence and width of walking / cycling routes along Marine Drive, and presence / habitats of shoreline foragers and penguins. Our January site visit included time at the Days Bay Penguin Haven.

1.2 Roles and responsibilities of the parties

- 1.2.1 The roles and responsibilities of the parties, other than submitters in opposition or support, were set out within various application and hearing documentation. It is, however, useful to repeat these here for the sake of clarity.
- 1.2.2 The Applicant is the HCC, with Stantec being the Applicant's agent.
- 1.2.3 Regional consents are required for the Project as the proposal breaches rules in relevant regional plans pertaining to Sections 9, 12, 14 and 15 of the Act. GWRC is the consent authority that must determine whether to grant or decline regional aspects the resource consent application. GWRC's consent responsibilities in this case generally relate to works in the area seaward of the line of mean high water springs (MHWS).

- 1.2.4 District consents are required for the Project as it breaches rules in the relevant District Plan pertaining to Section 89 of the Act. As well as being the Applicant, HCC is also the consent authority that must determine whether to grant or decline the resource consent application. HCC's consent responsibilities in this case relate to works in the area landward of MHWS.
- 1.2.5 Because many aspects of the Project physically cross MHWS we have taken a practical approach and considered them as an integrated whole.
- 1.2.6 The circumstance of a council (in this case HCC) being both the Applicant and the consent authority is not unusual in New Zealand's RMA system. To avoid perceived or real conflicts of interest created by the interrelationships between the parties and their statutory responsibilities, it is typical for independent commissioners to be used. As independent commissioners, our remit provides us with full autonomy to make the necessary decisions and impose conditions of consent.

1.3 Report structure

- 1.3.1 Resource consent applications require a decision to be made, either granting consent (with or without conditions), or declining consent.
- 1.3.2 Statutorily, many of the matters we must consider are the same or similar with respect to both resource consent applications, and they concern physical works which straddle the boundary between district and regional responsibilities. For those reasons, we have taken an integrated approach to some aspects of the assessment, and a separate approach where that is necessary to recognise differences between the two consents. In most situations, our report refers generically to the 'proposal', 'project', 'works' or similar variations, rather than distinguishing between the district and regional resource consents.
- 1.3.3 At various places we include references to the consent conditions. These references are typically in brackets and use a shorthand alpha-numeric system agreed between the Applicant and the consent authority planners, which breaks the conditions into subject matter groups. As an example (MW.1) refers to Mana Whenua Condition 1.

2 Location and Proposed Works

2.1 Location and Existing Environment

- 2.1.1 The proposed location of the works is set out in the Application documents, and Section 3 of the GWRC's s42A Officer's report prepared by Mr Watson. In summary, the Project focuses on the coastal edge of Marine Drive, between Point Howard and Eastbourne, terminating at the Muritai Road/Marine Drive intersection. There is a 'gap' in the Shared Pathway where no works are proposed, that being between the northern end of Days Bay and the southern end of Days Bay.
- 2.1.2 The Project length, excluding the gap at Days Bay, is 4.4km, with approximately 3.14km requiring works along the foreshore. A detailed bay-by-bay break down of the extent of structures can be found in table 2.1 of the Applicant's AEE.

- 2.1.3 A description of the existing environment can be found in full within Section 10 of the Applicant's AEE.

2.2 Environmental Characteristics

- 2.2.1 Marine Drive has been widened several times through small seaward enlargements, with the majority of the coastal fringe across the Project footprint (87%) being supported by engineered concrete and rock defences. These defences typically comprise concrete or rock revetment and gabion baskets in small sections.
- 2.2.2 Over time, the existing hard protection structures have disrupted the natural sediment transport regime within each bay. Historical reclamation of the coastal fringe has reduced sediment supply on beaches and has led to a slow loss of sand volume, reductions in beach width, the coarsening of beach material and a gradual change in the overall shape of the beaches.
- 2.2.3 Vegetation habitats in the Project area are intertidal and subtidal, beach gravels and sands, rocky islets, rocky headlands and promontories, landscape plantings and open space habitats. The intertidal habitats of the Eastern Bays area comprise moderately to very sheltered rocky reef, with a mix of substrate dominated by either bedrock, pebbles and boulders, or sand.
- 2.2.4 The proposed path passes by the Skerrett Boatshed in Days Bay which is listed in the Regional Coastal Plan (RCP), the Proposed Natural Resources Plan (PNRP) and the Heritage Chapter of the District Plan.
- 2.2.5 The Sunshine Service Station that is located on the opposite side of Marine Drive from the Shared Path at Sunshine Bay. The site is registered by the GWRC Selected Land Use Register (SLUR) as (SN/03/188/02) having a verified history of hazardous activity or industry (i.e., the service station).

2.3 Ecology

- 2.3.1 Red-billed gull, black-backed gull and variable oystercatcher are the primary avifauna of the intertidal zone on beaches, while rocky intertidal habitats are also the domain of oystercatchers and reef heron. Shallow offshore waters with rocky subtidal reefs provide feeding habitat for the red billed gull, southern black-backed gull, and little shag, little black shag and black shag. Fluttering shearwater, giant petrel, Australasian gannet, spotted shag, Caspian tern and white fronted tern are found in deeper offshore waters.
- 2.3.2 Little penguin / Kororā (*Eudyptula minor*) are found in the Project area. There are an estimated 42 breeding sites, with six breeding sites inland of Marine Drive. The predominant habitat of existing Kororā breeding sites is artificial rock, many of which are less than one metre above sea level and are at current risk of inundation by storms. With storms predicted to increase there is increasing inundation risk and threats to penguins in general.
- 2.3.3 Three occurrences of seagrass (*rimurēhia*, *Zostera muelleri* subsp. *novazelandica*) of varied densities are found in the intertidal and subtidal zones at south Lowry Bay (total area 1,940 m²). This is the only known occurrence of seagrass remaining in Wellington Harbour.

2.4 Eastern Bays Communities

- 2.4.1 Each bay has a distinctive character which is the cumulative product of many factors. These include settlement pattern; bay landform including its curvature; steepness of the hills and proximity to the coastline; orientation of the bay; and exposure to prevailing winds and the coastal edge.
- 2.4.2 South of the Project site is a large area of flat land behind the foreshore that has been densely developed and known collectively as Eastbourne (including Muritai), which has a small local commercial area consisting of cafes, restaurants and retail stores.
- 2.4.3 There are three local Primary schools within the wider Project area: Muritai School, San Antonio School and Wellesley College.
- 2.4.4 Although the Eastern Bays area is a collection of communities, we heard from submitters that foot and cycle connectivity between those communities is not well catered for, and there are associated safety concerns. There is no continuous footpath or dedicated cycleway along Marine Drive.
- 2.4.5 The beaches of the Eastern Bays area are highly valued for their recreational amenity, both by residents of those communities and by people from throughout the wider Wellington region.

3 The Project

3.1 The Problem Being Addressed

- 3.1.1 The intention of the Project is to develop a safe and integrated walking and cycling facility along Marine Drive to connect communities along Hutt City's Eastern Bays. The Project will also provide links to other parts of the network for recreation and tourism purposes. The Shared Pathway will form a key part of the Te Aranui o Pōneke or the 'Great Harbour Way' around Te Whanganui-a-Tara, the Wellington Harbour.
- 3.1.2 Currently, connectivity around the Eastern Bays for cyclists and pedestrians is low due to the lack of dedicated facilities and the constrained nature of Marine Drive. Cyclists and pedestrians use the road shoulder which is narrow and non-existent in some sections.
- 3.1.3 Marine Drive provides the only road access to and from the Eastern Bays suburbs and is therefore a crucial transport route for the locality. Key infrastructure services, including the main outfall sewer pipeline (MOP) serving the entire Hutt Valley, are located within the road corridor. The Project seeks to provide immediate protection of that infrastructure, although it would be a limited 'window' of time in the face of projected sea level rise / climate change. It also aims to provide built outcomes that are adaptable and resilient, with the potential for greater protection to be added beyond the initial window.
- 3.1.4 To date, coastal protection structures along the seaward edge have been developed in an ad hoc manner over time. Those structures are vulnerable to failure and do not provide effective storm mitigation. In the face of ongoing sea level rise, the proposed seawalls will, for a time, reduce the frequency and extent of overtopping and the resultant debris on the

road, and occasional road closures. The Project will also provide a consistent seawall design that can be added to in the future.

- 3.1.5 The Application documents and Mr Watson's s42A report both point out that the Project is not a permanent solution to the effects of sea level rise, and instead provides the first step in potentially incremental upgrades that would assist in providing protection to the road. The proposed seawalls do not preclude future options and have been designed to enable additional protection to be added in the future if considered appropriate.

3.2 General Description of the Proposal

- 3.2.1 The proposed works are set out in the Application documents and Section 4 of the GWRC s42A Officer's report. Physical works during the construction of the Shared Pathway will involve:

- 1) Removal and demolition of the existing seawall as necessary to allow for the construction of the new wall. Wherever there is adequate space on the road, these works will be undertaken from the roadway. Demolition waste (concrete, non-native bulk fill, reinforcing) will be taken to an appropriate landfill site for disposal.
- 2) Excavation work within the CMA, for some sections of the seawall, to embed the seawall toe into the substrate. Subsequent dewatering will be undertaken to allow for foundations to be poured. Once the foundations have been completed, the seawall form will be cast in situ.
- 3) Rock revetment¹ in some areas to protect the proposed Shared Pathway on the foreshore at certain vulnerable headlands. The revetment will be constructed by preparing the site, where necessary, by excavating a trench to build a reinforced cantilevered wall. Concrete will then be poured in situ to form the cantilevered wall. Backfill will be placed behind the cantilevered wall on the roadside to form the base of the Shared Pathway. Rock will be placed against the supporting cantilevered wall consistent with revetment design standards.
- 4) Beach nourishment at Point Howard, Lowry Bay and York Bay to remedy the loss of high-tide beach and associated recreation amenity at these locations. Sand will likely be sourced from the Hutt River, and a total of approximately 6,000m³ of material will be needed for beach nourishment, distributed across the respective bays.

- 3.2.2 Generally, the Application reflects a preliminary design for consenting. Section 6 of the Applicant's AEE indicates that the construction methodology and design is indicative and provides measures to avoid, remedy, or mitigate any adverse effects of activities on the environment. In essence, it is a worst-case scenario which establishes an 'envelope of effects'.

- 3.2.3 Construction is likely to be completed in stages over a six-year period. Each bay will be constructed in full before moving on to the next one. This is to provide consistency in design throughout each of the Bays. It is proposed that works on the Windy Point section of the

¹ A constructed slope of large rocks

Shared Pathway will be constructed first, followed by (in order): Howard Bay, Sorrento Bay, and Lowry Bay/Whiorau Bay. These will be then followed by the remaining Bays.

- 3.2.4 Each section is likely to take approximately 3-6 months to complete, depending on the extent of the particular works. A more detailed construction programme for the Project will be developed during the detailed design stage. This programme will be incorporated into the Construction and Environmental Management Plan (CEMP) which is required via a condition of consent.
- 3.2.5 The CEMP will be prepared to support and guide the construction of the Project, including the environmental management and monitoring procedures that will be implemented during the Project's construction phases. The CEMP will be developed in consultation with the relevant Project experts including ecologists, landscape architects and coastal engineers, and will incorporate or refer to the following management plans:
- Landscape and Urban Design Plan (LUDP)
 - Bay Specific Urban Design Plans (BSUDPs)
 - Beach Nourishment Plan (BNP)
 - Traffic Management Plan (TMP)
 - Bird Protection Plan (BPP)
 - Seawall and Revetment Habitat Plan (SRHP)
- 3.2.6 All management plans will provide overarching principles, methodologies and procedures for managing the effects of the construction of the Project to achieve the environmental objectives, outcomes and performance standards required by the respective management plans.

4 Regional and District Consents

4.1 Regional Consents Required

- 4.1.1 The Applicant seeks resource consent from GWRC under the notified version of the Proposed Natural Resources Plan (PNRP), and the Operative Regional Coastal Plan (RCP).
- 4.1.2 In line with Section 9 of the Act, Land Use Consent is required for earthworks above MHWS that exceed the permitted activity threshold in the PNRP. Under Section 12 of the Act, Coastal Permits are required for proposed construction work in the CMA, including reclamation, demolition and placement of new structures, and other construction related activities. Under Section 14 of the Act, Water Permits are required for the take, use, damming, or diversion of coastal and groundwater, with respect to dewatering for seawall foundation works. Section 15 of the Act requires Discharge Permits for the discharge of sediment associated with construction related activities.
- 4.1.3 Mr Watson's s42A report (Tables 6 and 7) lists the specific rules to which the application is subject to. For clarity, these rules are summarised below:

4.1.4 Operative Regional Coastal Plan

- 1) Rule 4 (Discretionary) - Reclamation; demolition and placement of new structures; and other construction related activities pertaining to the reclamation of the CMA
- 2) Rule 14 (Controlled) - Removal or demolition of structures
- 3) Rule 16 (Controlled) - Occupation by structures of land of the Crown or any related part of the CMA
- 4) Rule 18 (Discretionary) - Structures more or less parallel to mean high water springs
- 5) Rule 25 (Discretionary) - All remaining activities involving the use and development of structures outside any Area of Significant Conservation value
- 6) Rule 45 (Controlled Activity) - Beach nourishment
- 7) Rule 61 (Discretionary Activity) - Other activities involving discharges to land and water outside Areas of Significant Conservation Value
- 8) Rule 83 (Restricted Discretionary) - Motor vehicles, motorcycles, trailers and land yachts on beaches

4.1.5 Proposed Natural Resources Plan (Notified Version)

- 1) Rule R68 (Discretionary) - All other discharges
- 2) Rule R142 (Discretionary) - Any other take and use of water
- 3) Rule R101 (Discretionary) - Earthworks and vegetation clearance
- 4) Rule R153 (Restricted Discretionary) - Removal or demolition of a structure
- 5) Rule R155 (Restricted Discretionary) - New temporary structures
- 6) Rule R161 (Discretionary) - New structures, additions or alterations to structures outside sites of significance
- 7) Rule R198 (Non-Complying) - Motor vehicles inside sites of significance
- 8) Rule R208 (Discretionary) - Deposition outside sites of significance

4.2 **District Consent Required**

4.2.1 The Applicant seeks resource consent from HCC under the Hutt City Council District Plan.

4.2.2 Land use consent is required for the construction, alteration (including widening the road in some areas) and diversion of Marine Drive to create the Shared Pathway in accordance with Section 9 of the Act, and Land use consent for the construction and operation of the Shared Pathway within a Significant Natural Resource (SNR) site, being SNR 44².

² Melicytus obovatus ssp 'coast', at Point Howard beach, being a coastal shrub with 'At Risk – Relict' status

5 Process Before Hearing

5.1 Consultation

- 5.1.1 Consultation regarding the proposed works began in early 2016 in the form of Iwi engagement. Further public consultation was undertaken in late 2016 when the Project team sought views from members of the public at a community open day. Section 25 of the Application summarises the consultation plan and outcomes, and Appendix I of the Application describes (in detail) the 'Stakeholder and Engagement Plan' and provides a 'Stakeholder Engagement and Consultation Report'.
- 5.1.2 Stakeholder engagement and consultation is a key component of the Eastern Bays Shared Pathway Project. The Eastbourne Community Survey (2014) revealed that the top two issues for residents were completion of the Eastern Bays walk/cycleway and climate change (and extreme weather events). The general consultation process adopted a 'bay-by-bay' approach, with dedicated sessions for individual bays, focussing on the key issues faced by each bay along the Project length. The design was refined during the early part of 2017 and a series of community meetings were held in August 2017 to obtain input from the community on the design.
- 5.1.3 There are three iwi groups who are identified as exercising kaitiakitanga within the area affected by the proposal:
- Taranaki Whānui ki te Upoko o te Ika (Taranaki Whānui)
 - Te Ātiawa ki Whakarongotai (Te Ātiawa)
 - Ngāti Toa Rangatira
- The Wellington Tenth's Trust and PNBST are the relevant Iwi authorities for Te Ātiawa and Taranaki Whānui.
- 5.1.4 The Applicant also engaged with Te Ātiawa ki te Upoko o te Ika a Māui Pōtiki Trust as a mandated Iwi authority for fisheries. The outcome of consultation with these parties is discussed further in Section 7 of our decision.
- 5.1.5 The Marine and Coastal Area (Takutai Moana) Act 2011 (MACA) deals with Māori customary rights in the coastal marine area. The Applicant notified and sought the views of the groups that have applied for recognition of customary marine title in the area. A copy of this correspondence can be found in Appendix I of the Application.
- 5.1.6 The Applicant identified a number of key stakeholders in accordance with the 'Stakeholder Engagement Plan'. These key stakeholders included; the Department of Conservation (DOC), GWRC, CentrePort Limited, NZ Transport Agency/Waka Kotahi, HCC, private landowners (James Robert and Janette Thomas), Residents' Associations and Community Representatives and Interest Groups. The Applicant undertook consultation with each of these parties following their 'Stakeholder Engagement Plan'. The issues arising from consultation can be found in Section 25.3 of the Application.

5.2 Public Notification and Submissions

- 5.2.1 The Application was publicly notified in the Hutt News on 29 October 2019 and the Eastbourne Herald on 17 November 2019. Signs advertising the consent application were erected at the entrance to Point Howard and within the carpark adjacent to the intersection of Muritai Road and Marine Drive in Eastbourne during the week beginning 4 November 2019. In addition, notice of the application was directly served to 21 identified stakeholders.
- 5.2.2 There were 192 submissions received. Eight submissions were received after the statutory submission timeframe but were accepted by the Councils. Of the 200 submissions received, 179 were in support of the application (either in full or in part), 16 were in opposition (in full or in part) and 5 submissions were neutral.
- 5.2.3 Submissions covered a wide array of issues and expressed overall views both for and against the Project. A common theme of submissions in support was the prospect of improved safety for pedestrians and cyclists, and increased resilience from natural hazards. Issues raised in opposition to the application ranged from the design and width of path, to concerns about marine ecology, and non-compliance with relevant policy documents.

5.3 Pre-hearing Meeting

- 5.3.1 No formal pre-hearing meeting was held between the Applicant and the two consenting authorities. However, in the interests of resolving concerns about effects on coastal birds and penguins, the Applicant arranged a meeting with local penguin specialists and regulatory stakeholders on 2 March 2020 to discuss mitigation and options. This meeting was to inform the Applicant's further thinking about Project design, mitigation measures, and the content of any management plan to address effects on penguins and shorebirds.

5.4 Commissioners' Minutes

- 5.4.1 We issued four Minutes, as follows:
- Minute 1 (18 December 2020) concerned a legal opinion received from Counsel for the Applicant in relation to interpretation of the New Zealand Coastal Policy Statement (NZCPS), in particular Policy 11a which relates to the avoidance of effects on threatened or at-risk indigenous species. This minute posed a series of questions to legal Counsel for the consent authorities.
 - Minute 2 (21 December 2020) outlined the remaining steps in the decision-making process for the hearing on the resource consent applications.
 - Minute 3 (29 January 2021) requested clarifications from the Applicant in response to matters arising from the Right-of-Reply and its associated appendices that were received 22 January 2021.
 - Minute 4 (12 February 2021) advised all parties of the close of hearing.

5.5 Expert Conferencing

- 5.5.1 No formal expert conferencing was undertaken before the hearing. However, a series of memoranda were sent to the consent authorities prior to the hearing. The purpose of these

were to provide a response (in part) to a request for further information under s92(1) of the Act.

5.5.2 The memoranda were as follows:

- Memorandum 1 (22 July 2019) responded to and resolved concerns around herpetofauna (the environment does not support lizard habitat); effects on marine mammals; relevant provisions of the NZCPS in respect of natural character and landscape matters; management of pests and rodents during construction; the methodology for assessing fish presence; and monitoring conditions related to coastal processes.
- Memorandum 2 (20 August 2019) included a report on Avifauna and Little Penguins prepared by Dr John Cockrem of Kororā Ornithology Ltd and a memorandum from Dr Fleur Matheson from NIWA related to the Applicant's approach to the management of seagrass beds in Lowry Bay. We note that this memorandum did not resolve concerns around effects on coastal birds and penguins.
- Memorandum 3 (18 September 2019) did not concern matters relating to the s92(1) request. This memorandum included a revised assessment of the relevant objectives and policies for the purposes of the substantive assessment under s104 of the RMA, and the gateway test³ under s104D of the Act.
- Memorandum 4 (19 September 2019) responded to outstanding concerns about the need for safety barriers and concerns over the path from an operational safety perspective, as raised in the technical review of the application.
- Memorandum 5 (15 June 2020) responded to the position statements of the consenting authorities on outstanding matters of concern and included a revised suite of consent conditions.
- Memorandum 6 (22 October 2020) was the final pre-hearing response of the Applicant regarding outstanding concerns about effects on penguins and coastal birds, and all other matters raised in Response to Memorandum 5.

³ The 'gateway test' under section 104D RMA allows consent to be granted to a non-complying activity if the proposal passes through either of two gateways. Those gateways are either: the absence of any effects that are more than minor, or that the proposal is not substantially inconsistent with relevant objectives and policies of a regional or district plan.

6 Hearing Overview

6.1 Hearing Schedule

- 6.1.1 The hearing was held over 15 to 17 December 2020 at the Hutt City Events Centre. The hearing was formally closed on 12 February 2021 via Minute 4, after we received further information that had been requested in the previous Minute.

6.2 Appearances

- 6.2.1 We record the following appearances on behalf of the various parties.

For the Applicant	Expertise
• Ihakara Puketapu-Dentice	• Strategic overview and engagement
• Simon Cager	• Project overview and engagement
• Michael Allis	• Coastal processes
• Richard Reinen-Hamill	• Beach nourishment
• Shelley McMurtrie	• Intertidal and subtidal ecology
• Robert Greenaway	• Recreation and amenity values
• Dr Fleur Matheson	• Seagrass
• Morris Love	• Cultural effects and values
• Dr Alexander James	• Freshwater Ecology
• Dr John Cockrem	• Avifauna
• Michael Copeland	• Economics
• Julia Williams	• Landscape and visual effects
• Jamie Povall	• Project Design, Transport and Safety
• Caroline van Halderen	• Planning
For Greater Wellington Regional Council	Expertise
• Dr Megan Oliver	• Seagrass and Marine Ecology
• Dr Iain Dawe	• Hazards and Coastal Processes
• Dr Roger Uys	• Terrestrial Ecologist
• Shannon Watson	• Planning
For Hutt City Council	Expertise
• Catherine Hamilton ⁴	• Landscape Architect
• Jeremy Head ⁵	• Landscape Architect
• David Wanty	• Transport
• Dan Kellow	• Planning
Submitters	Position
• Virginia Horrocks (Eastbourne Community Board)	• Support
• Graeme Hall (Te Aranui o Pōneke/Great harbour Way Trust)	• Support

⁴ Also appeared on behalf of GWRC

⁵ Also appeared on behalf of GWRC

• Robert Ashe	• Support
• Amelia Geary (Royal Forest and Bird Protection Society NZ Inc.)	• Oppose
• Kate Wilson	• Support
• Michael Rumble	• Oppose ⁶
• Fiona Christeller	• Support
• Felicity Rashbrooke (East Harbour Environmental Association Incorporated)	• Oppose
• Geoff Rashbrooke	• Oppose
• Dave Le Marquand (Z Energy, BP Oil Ltd, Mobil Oil Ltd)	• Support (conditional)
• Steve Bielby	• Support
• John Morgan	• Support
• Derek Wilshere	• Support
• Dr Dave Tripp (Doctors for Active, Safe Transport)	• Support
• Belinda Moss (Lowry Bay Residents Association)	• Support
• Peter Healy	• Support

6.2.2 We heard from the Applicant and most of their expert witnesses on the first day of the hearing. Two witnesses, Mr Povall and Ms van Halderen, presented on the second day.

6.2.3 On the final day of the hearing, we heard from the Council Reporting Officers and their supporting expert witnesses.

6.3 Submitter Appearances and Overview

6.3.1 To facilitate the hearing process, we heard from individual submitters on each day of the hearing.

6.3.2 Safety improvements was a theme commonly cited by submitters. Virginia Horrocks, Robert Ashe, Steve Bielby, Belinda Moss and John Morgan all discussed the existing road and the dangers presented by the lack of a designated cycle and pedestrian path.

6.3.3 Fiona Christeller supported the proposal. However, she considered that the Landscape and Urban Design Plan and the Bay Specific Urban Design Plans (required by conditions LV.1-LV.7) are critical to the successful outcome of the Project. Ms Christeller also raised concerns regarding the removal of the 'Atkinson Tree' stating that there were over 9 submissions to keep it there.

6.3.4 Kate Wilson supported existing and proposed enhancements of the region's cycle trails. However, she stated that the Project needs to 'front foot issues' and that the 'target should

⁶ This submission stated opposition to the application, but requested that GWRC grant consent

be to ensure the path provides for the needs of the interested and concerned'. Ms Wilson called for elements such as water fountains, toilets, bike parking and bike chargers to be included in the design.

- 6.3.5 Both Geoff Rashbrooke and Felicity Rashbrooke raised concerns about the loss of beach space and the loss of access to certain beaches (particularly in York Bay, Mahina Bay and Point Howard). Ms Rashbrooke considered that if the Shared Pathway were sited landward of Marine Drive, coupled with a reduction in its width, it would be possible to avoid beach loss. Both submitters also raised concerns about the position of the bus shelters at Mahina and York Bays, citing safety concerns about the shelters' proximity to the Shared Pathway.
- 6.3.6 Amelia Geary, on behalf of Forest & Bird Incorporated, opposed the application due to potentially adverse effects on indigenous at risk or threatened species, namely seagrass, little blue penguins and oystercatchers. Ms Geary raised the following points in opposition to the Project:
- 1) Effects on seagrass beds adjacent to the Shared Pathway have not been adequately considered during construction or in the longer term;
 - 2) Management of Little Blue Penguins during the construction phase of the Project is inadequate. Ms Geary requested more clarity about actions to be taken if penguins are detected at the time of construction;
 - 3) The proposed mitigation of providing new areas of penguin habitat is not sufficient to compensate for habitat loss along the pathway; and
 - 4) Insufficient consideration has been given to effects of the Shared Pathway as a whole, relating to foot traffic, dog walkers, and cyclists using it once the path is operational.
- 6.3.7 Mr David le Marquand, a Planning expert, presented on behalf of the oil companies⁷. He stated that although they support the Project, they have reservations in relation to implications for the oil companies' own resource consents, and safe access to and from Seaview Wharf.
- 6.3.8 Mr Michael Rumble's presentation focused on concerns relating to Little Blue Penguins (LBP). He stated that there was a 'need to give penguins more consideration' as a whole. Mr Rumble's concerns included matters such as the specific location of the proposed LBP habitat enhancement zones, and the lack of proposed LBP monitoring during and after the completion of the project.
- 6.3.9 We acknowledge Mr Rumble's significant experience of penguins and the work that he undertakes, including that at the Days Bay Penguin Haven. We regard him as an expert by virtue of experience, as opposed to qualifications. However, in appearing on his own behalf in support of his submission, we cannot fully accept him as an impartial expert in the sense intended by the Environment Court Code of Conduct. Notwithstanding that fact, we consider that the information he presented to us was useful.

⁷ Z Energy, BP Oil Ltd, Mobil Oil Ltd

6.4 Matters Out of Scope

- 6.4.1 This section of our report identifies matters that we consider are ‘out of scope’ in terms of our mandate, RMA law, or practice. We cover those matters here for completeness. We also do so for the particular purpose of helping any submitters to understand why we have reached conclusions they may consider unfavourable to their case.
- 6.4.2 There were matters raised within submissions that fall outside the ambit of the relevant planning documents and the consents being applied for. These matters included:
- Concern about use of ratepayer funding and funding mechanisms
 - Failure to include Days Bay and Point Howard sections of path
 - Changes to the naming conventions (and associated signage) of respective bays
 - Changes to road speed limits and associated signage, and
 - Provision of additional pedestrian crossing places.

As a consequence, we are not able to make any decisions based on those matters.

7 Mana Whenua

- 7.1.1 We consider it important to record issues relevant to Mana Whenua. This is not required to resolve issues, but to explain that the Project is located within a coastal environment that is highly significant to Mana Whenua as detailed in the Cultural Impact Assessment (CIA) which formed part of the Application.
- 7.1.2 There are three Iwi groups who are identified as exercising kaitiakitanga within the area affected by the proposal; Taranaki Whānui ki te Upoko o te Ika (Taranaki Whānui), Te Ātiawa ki Whakarongotai (Te Ātiawa) and Ngāti Toa Rangatira.

Taranaki Whānui ki Te Upoko o Te Ika (Taranaki Whānui) of the Te Whanganui-a-Tara area

- 7.1.3 Taranaki Whānui are those people who descend from one or more of the recognised tipuna of:
- Te Āti Awa;
 - Taranaki;
 - Ngāti Ruanui;
 - Ngāti Tama;
 - Ngāti Mutunga; and
 - Other Iwi from the Taranaki area.
- 7.1.4 The Iwi that comprise Taranaki Whānui migrated to the Wellington area in the 1820s through to the 1830s and have maintained permanent occupation since that period. The “rohe” (tribal area) of Taranaki Whānui is centred around Te Whanganui-a-Tara including the Harbour and its surrounding environs. The Project traverses areas with strong associations to the Te Āti Awa people where kainga and papakāinga, māra kai and mahinga kai were established, albeit they have now been subsumed by urban development.

- 7.1.5 The Wellington Tenth Trust and PNBST are the relevant Iwi authorities for Taranaki Whānui. Taranaki Whānui cultural associations with the area have been formally recognised in their own Deed of Settlement set out in the Port Nicholson Block (Taranaki Whānui ki te Upoko o te Ika) Claims Settlement Act 2009.

Ngāti Toa Rangatira

- 7.1.6 Ngāti Toa Rangatira (Ngāti Toa) descend from the Tainui waka which made landfall at Kawhia on the West Coast of the North Island in around 1350. Ngāti Toa remained domiciled there for centuries before migrating to Cook Strait in the early 1820s. Ngāti Toa's area of interest spans Cook Strait, the lower North Island from Rangitikei in the north (including Kāpiti Coast, Hutt Valley and Wellington and Kāpiti and Mana Islands), large areas of the Marlborough Sounds and much of the northern part of the South Island. The traditional interests and associations of Ngāti Toa include Te Whanganui-a-Tara, as has been formally acknowledged by the Crown in Treaty settlement legislation.
- 7.1.7 Ngāti Toa Rangatira cultural interests and associations with the area have been formally recognised in their own separate Deed of Settlement set out in the Ngāti Toa Rangatira Claims Settlement Act 2014.

Cultural Impact Assessment

- 7.1.8 The Applicant has provided (as part of the Application) a CIA, prepared by Raukura Consultants (Mr Morrie Love), on behalf of The Wellington Tenth Trust and Port Nicholson Block Settlement Trust (PNBST). The two major concerns cited by the CIA are:
- the damage and destruction of sites of cultural significance, and
 - effects on customary fishing.
- 7.1.9 The CIA states that there are no known sites of Māori significance that will be directly affected by the proposed Shared Pathway or associated earthworks, however taonga (carved stone and bone items) have been found within the area in the past.
- 7.1.10 The CIA concludes by stating that the Shared Pathway should have only minor cultural impacts largely related to the rocky coastline of the area and perhaps on some sites around the harbour. The CIA concludes that the provision of a safe Shared Pathway for pedestrians and cyclists would be a welcome addition to the area for all.
- 7.1.11 The Applicant's partnership approach to consulting and engaging with Mana Whenua throughout the initial phase of the Project has, in the Panel's view, been successful. Mana Whenua have a holistic and deep relationship to all aspects of the environment (water, land and air) and in this case are particularly concerned to ensure that their traditional relationship with Te Whanganui-a-Tara is recognised and provided for especially through the design and implementation phases of the Project.
- 7.1.12 The Panel takes comfort in knowing that, while some adverse environmental and cultural effects on the Harbour are unavoidable, the Applicant has worked with Mana Whenua to enable the prioritisation and understanding of issues of significance, such as access to the foreshore, to be translated into the design.

Mana Whenua Steering Group

7.1.13 The Applicant, importantly, has committed to working with Mana Whenua through the Mana Whenua Steering Group (MWSG) which is a condition of consent. The purpose of the MWSG (MW.1) is to:

- 1) Facilitate ongoing engagement with Mana Whenua in respect of the activities authorised by these resource consents;
- 2) Provide an opportunity for Mana Whenua to provide kaitiaki inputs into the Project as set out in Condition MW.3; and
- 3) Ensure appropriate tikanga and kawa (customary practices and protocols) are being applied throughout the development and implementation of the Project.

7.1.14 Throughout the development of the detailed design stage of the Project, we were informed that Iwi will be invited to participate in various aspects such as the formulation of storyboards and signage and the ecological management and bird protection measures along the Shared Pathway. We also note that through conditions of consent, the Landscape Urban and Design Plan (LUDP) must be prepared in consultation with local Iwi and that this process (together with the others mentioned) provides an opportunity for their input into the design features of the Shared Pathway. The currently 'broad brush' nature of path design presents a significant opportunity for Iwi to contribute to the bay-by-bay design process and ensure continuity of design (with respect to cultural elements) along each of the Bays.

8 Effects and Findings

8.1 Overview

8.1.1 This section of our report presents our findings related to:

- Benefits and Positive Effects
- Project Design
- Ecology
- Coastal Processes
- Construction Effects
- Heritage Effects

Our consideration under section 104(a) of the Act excludes any matters we note as being out of scope in Section 6.4.

8.2 Project Benefits and Positive Effects

8.2.1 We were advised that the Project's benefits are many and varied, including:

- 1) A 'transport mode shift' to active modes, and the subsequent health benefits;
- 2) Improved connectivity to the water and throughout Eastbourne, Hutt City and the wider Wellington region;

- 3) Improved resilience from wave overtopping and a response to ongoing sea level rise; and
- 4) Economic benefits for the region resulting from improved tourism and recreation.
- 8.2.2 A full evaluation of the Project benefits and positive effects of the proposal can be found within Section 23 of the Application, Section 12.15 of GWRC's s42A report, and Section 2 of the 'Reply on Behalf of the Applicant' submitted to the Panel dated 22 January 2021.
- 8.2.3 As described in the evidence of Simon Cager, the Applicant aims to create a safe and integrated walking and cycling facility which will improve connectivity and community health and wellbeing. At the same time, it is intended to provide improved resilience (through the proposed replacement seawalls and revetment structures) – thereby commencing a response to climate change and sea level rise effects along the Eastern Bays.
- 8.2.4 The evidence of Mr Povall addressed key benefits of the project. Mr Povall summarised the current vulnerability of Marine Drive and its susceptibility of inundation and failure due to the effects of sea level rise and large storm events. Mr Povall went on to highlight benefits that the Project will have in terms of health and safety, stating the various health benefits of promoting the use of active travel and highlighting the decreased perceived risk of separating a Shared Pathway from the live carriageway on Marine Drive. Mr Povall further stated that accessibility to the beach will be improved and more formalised through the provision of steps, small/mini steps and boat ramps.
- 8.2.5 The evidence of Rob Greenway, a recreation expert, was that the project would induce demand by cyclists and pedestrians.

Council Expert Evidence – Benefits and Positive Effects

- 8.2.6 The consenting authorities' experts generally agreed with the Applicant's evidence in terms of Project benefits and positive effects. The only matter which generated additional discussion was the width of the path in certain locations. Here David Wanty (HCC) considered that the transport related effects are overall positive due to the proposal promoting active transport modes and the seawall increasing the protection of Marine Drive.
- 8.2.7 The key issue of uncertainty between the experts was in relation to the safety of path users where the path narrows to 2.5m. We note that the Applicants' safety audit of the preliminary plans did not raise concern about user safety in these narrower locations, nor did the Applicants own transport and recreation experts or Mr Wanty consider the 2.5m sections to be unacceptable. The Panel's view is that 2.5m sections are acceptable from a safety perspective.
- 8.2.8 The Panel highlights here that Ms Hamilton was not able to come to the same conclusion. She believed that 2.5m was too narrow and that 3.5m would be more appropriate, especially where a safety barrier was also constructed. She described the 'shy-away effect', being the tendency of cyclists to avoid getting too close to edge barriers. In effect, this can reduce the active width of a path.

Submissions – Benefits and Positive Effects

- 8.2.9 Health and/or safety appeared in most submissions (171 out of 200); of those 171 submissions, the vast majority (159) were in support. The key themes of the submissions included the Project encouraging more people to walk and cycle the route, where many consider this too dangerous to currently do.
- 8.2.10 Health and safety also came across strongly within the oral submissions, Robert Ashe stated his vision was ‘for kids to be kids’ where they can safely ride to school or visit their friends. John Morgan presented the hearing with photos displaying narrow footpaths and buses passing close by, he stated that the existing pathway ‘is not only narrow but in need of repair’ and went on to say that the as a resident he embraces the proposed pathway.
- 8.2.11 The Panel notes that Geoff Rashbrooke expressed scepticism about the extent to which the Shared Pathway would get people out of cars and onto their bicycles.

Findings – Benefits and Positive Effects

- 8.2.12 Overall, we find that the Project benefits and positive effects are a significant driver of the Project and concur with the Applicant. We note that there are no major points of difference between the Applicant and the consenting authorities. In reaching our overall conclusion, we consider the project would include the following benefits:
- Transport mode shift - away from vehicles to active modes
 - Safety Benefits - particularly for cyclists and pedestrians
 - Health and environmental benefits - primarily through reduced motor vehicle dependency and increased walking and cycling
 - Recreation and tourism - making the Eastern Bays more attractive to visitors, and
 - Environmental and cultural awareness – such as through signage.
- 8.2.13 In summary, we accept the evidence of Messrs Cager, Greenaway and Povall for the Applicant and concur with all the Project benefits outlined in their briefs of evidence, and by the Application documents. This finding is, however, subject to the environmental management and design requirements imposed through resource consent conditions.
- 8.2.14 During the hearing we raised the matter of accessibility for less able members of the community, particularly to the beach, as were not satisfied that this issue had been adequately identified. We have revised condition GC.29 to have regard to accessibility as part of the independent auditing process.

9 Project Design

- 9.1.1 The intent of the Project is to develop a safe and integrated walking and cycling facility along Marine Drive. The Applicant has presented an overarching design which is sufficient to enable assessment of the Project's effects; however, it is proposed that the detailed design will be progressed and finalised in line with the proposed conditions, and in particular the Landscape and Urban Design Plan (LUDP) and Bay Specific Urban Design Plans (BSUDPs).
- 9.1.2 The proposed design has been developed bay-by-bay on a site-specific basis, through an iterative design process, responding to a range of issues including, but not limited to:

- desirable path width
- safety of pathway users
- the structural condition of the existing walls
- current and future resilience to the effects of climate change
- the width of the existing road reserve
- coastal processes
- ecology
- presence of penguins
- community feedback

9.1.3 Mr Povall's statement of evidence on behalf of the Applicant detailed the design philosophy of the Project, the assessment of alternatives, a high-level description of the design features, and provided responses to submissions.

9.1.4 The following paragraphs summarise key design issues that were raised during the hearing.

Path Width – Project Design

9.1.5 The proposed Shared Pathway varies in width depending on the physical constraints of the bay environments. The majority (83%) of the path width is 3.5m, with a minimum of 2.5m being applied in the most constrained locations. The Applicant has stated that the Shared Pathway has been sensitively designed to fit in within the environment (bay-by-bay) and is not a 'one size fits all' approach. It would be wider at the more popular beaches, catering to a greater movement of bikes/people and community preferences.

9.1.6 The path width is discussed in detail within Appendix K of the Application documents (Recreation Assessment, prepared by Rob Greenaway & Associates). The report discusses various published path width standards and concludes that 3.5m is the recommended minimum standard for a Shared Pathway. The report highlights that the Shared Pathway will be a compromise between a preference for a 3.5m standard width and 2.5m where there are potential for adverse effects on beach amenity or ecological values. We note that within his report, Mr Greenaway states the following: *"The bikeable speed of the Shared Pathway will limit its use by experienced commuting cyclists when recreational use is high, and high-speed commuting will be unlikely on a 2.5m wide Shared Pathway at any time"*.

9.1.7 HCC commissioned Ms Hamilton of WSP-Opus to review the Recreation Assessment prepared by Rob Greenaway and Associates. Ms Hamilton contended that the reliance on the consent condition process to review the detailed design plans are concerning and could result in 'ad hoc' outcomes. Ms Hamilton further stated that it would be worth simulating the design parameters to better understand behaviour associated with the proposed design and to alleviate any unintended consequences on recreation use and enjoyment and safety in areas where the path is proposed to be narrower than 3.5m.

9.1.8 We note that there are several submissions that supported a narrower path although there was no clear and obvious theme throughout the submissions in relation to path width. The Panel acknowledges Ms Hamilton's comment that the adequate sizing of a path is a matter for expert analysis. She also expressed a concern that a staged design process could result in

ad hoc outcomes and the loss of overall cohesion and unity. It was suggested by Ms Hamilton that full design up-front with staged construction could avoid this problem.

Bus Stops – Project Design

- 9.1.9 The Application notes that the potential conflict between Shared Pathway users and pedestrians at bus stops will be managed. At most locations, the Shared Pathway will be diverted behind the bus shelters. Where the Shared Pathway is not to be diverted behind the shelters, line marking and signage will be used to highlight areas of potential conflict in order to enhance safety and minimise risk.
- 9.1.10 A number of submitters expressed concerns regarding the width of the pathway around the bus stops. Felicity Rashbrooke's oral submission commented that bus stops need to be in areas where they can be accessed safely with no footpath between them, as bus patrons would be endangered. Submitters Mr Ashe and Ms Horrocks did not consider this potential conflict to be a significant risk due to people's ability to adapt behaviours quickly and exercise common sense in sharing the space.

Traffic Monitoring – Project Design

- 9.1.11 The Application includes a Transport Assessment in Appendix L of the AEE. The Transport Assessment and wider application was peer reviewed on behalf of HCC Resource Consents and GWRC by Mr David Wanty. Page 33 of the Transport Assessment sets out the potential adverse effects on the local road network.
- 9.1.12 In a draft brief of evidence, Mr Wanty (for HCC) recommended additional conditions which were provided to the Applicant. As reported to us by Mr Wanty, in response to our questions during the hearing, the conditions sought:
- 1) The undertaking of an independent road safety audit at the detailed design stage and at the pre-opening/post-construction stage.
 - 2) That the HCC as Applicant review the posted speed limit along the Project route within 'x' years of a convenient start point. Mr Wanty suggested that Council propose what the start point might be and associated 'x' years.
 - 3) That HCC regularly monitor and report usage of and safety/incidences along the Shared path within the first 'y' years of operation. Mr Wanty suggested that 'y' might be 1 to 3 years.
- 9.1.13 The Panel notes that HCC concurred with Mr Wanty that the recommended conditions will potentially assist the consent holder to ensure the Shared Pathway is appropriately designed and operating as anticipated especially in terms of safety. The Applicant rejected the conditions. As a result, Mr Wanty did not include them in his final evidence.

Barriers – Project Design

- 9.1.14 At various locations along the pathway, the potential for barriers (fences of an as yet undefined design) has been indicated by the Applicant. The intention of those barriers is to avoid the risk of pathway users falling over edges where there would be a drop of more than 1 metre. In other locations where the fall height is reduced, a low-level wheel stop is

proposed to prevent inadvertent roll over from path users. The approximate total length edge barriers in the Project could be up to 800m in locations where the fall height between the path level and the adjacent beach or headland would be close to 1.0m vertical height or greater.

- 9.1.15 Both Ms Hamilton and Mr Wanty commented on the potential 'shy away' effect from barriers. This could have the outcome of reducing the perceived available width of pathway beside barriers. Some submitters referred to the potentially adverse visual effect of barriers, which would depend on their design.
- 9.1.16 Other types of barrier could be introduced along the Shared Pathway as outcomes of the bay specific design process. An example referred to in the hearing was a barrier to shield bird nesting areas from view. We understand that all barriers, for whatever purpose, would need to pass through the BSUDP process.

Findings – Project Design

- 9.1.17 We find that the submitted Project design, and its future detailed expression through bay-by-bay specific design, is intended to achieve a balance between competing environmental and community factors. We accept that the conditions will be effective in achieving that outcome. In reaching our overall conclusion we have had regard to the following matters:
- 1) Path width – The Panel agrees with the Applicant in that a path width of 3.5m through the majority of the Project is acceptable. We acknowledge that there must be a compromise when considering the path width in some sensitive locations, and find that a 2.5m width is acceptable to minimise the loss of beach space and associated recreational values.
 - 2) Bus Stops – The Panel has some concerns about the interaction between the pathway and bus stops, and considered that specific attention needs to be focused on the width of the path around bus stops to enhance safety and minimise risk. The Panel considers that specific reference to bus stops needs to be included within condition LV.7.
 - 3) Traffic Monitoring – The Panel considers that traffic monitoring is important and the pre and post construction road safety monitoring will inform the subsequent bay-by-bay design process. The Panel adopts the view of HCC and contends that there needs to be longer term involvement with respect to traffic monitoring. We therefore recommend that condition GC.29 (as recommended by Mr Wanty and contained within the original set of conditions) be re-introduced.
 - 4) Barriers – The Panel accepts that barriers may be a necessary component of the design in some locations of the Project, but the affected length will not be significant. We consider that the effects of barriers will be no more than minor and can be addressed through the BSUDP process.
- 9.1.18 In summary we accept the evidence of the Applicant and acknowledge the expertise of the designers that have contributed to the Project, we are satisfied that the bay-by-bay design process will result in positive outcomes. This finding is however subject to the environmental management restrictions imposed through resource consent conditions.

10 Ecology

- 10.1.1 The Project's potential effects on marine ecology are of critical importance to the Panel's assessment.
- 10.1.2 The Applicant's information on this issue was included in the Application Documents and included a specific Assessment of Effects for Intertidal Ecology contained in Appendix A of the Application and additional information received as part of further information requests post lodgement.

10.2 Little Blue Penguins – Kororā

- 10.2.1 The little blue penguin (little penguin) is classified as a 'Nationally At Risk: Declining' species. In the Wellington Region: however, this species has been assessed by experts to be 'Regionally Threatened: Vulnerable'.
- 10.2.2 Memorandum 6 described that two penguin nesting sites have been identified within the footprint of the Shared Pathway and will be destroyed. A further 17 penguin nesting sites have been identified on the landward side of the path, access to which will be affected by the construction and ongoing use of the path.
- 10.2.3 Potential effects on little penguins during construction include removal or displacement of a nest, moulting or other occupational sites, disturbance and destruction of adults, chicks, and eggs, and penguin injury or mortality through interaction with machinery.
- 10.2.4 The Applicant has proposed measures that seek to avoid or mitigate the temporary adverse effects on shoreline foragers and little penguins during design and construction activities. These measures are discussed within Section 12.1.3 of GWRC's 42A report. The measures were assessed by Dr Uys who was satisfied and agreed the effects on little penguins during construction can be managed, such that they are no more than minor.
- 10.2.5 Reclamation of the CMA will contribute to permanent habitat loss along the Project footprint. To mitigate the effects of this loss, the Applicant has proposed habitat enhancement (or protection areas) at Whiorau Reserve, north of Bishops Park and in HW Shortt Park. The proposed areas of habitat enhancement are larger than the area lost to construction of the Project.
- 10.2.6 The Applicant has also proposed a number of other measures included as conditions of consent including;
- Seeking dog control measures (EM.2)
 - Forming a pest management strategy (EM.5)
 - Undertaking rubbish and waste management (EM.7)
 - Undertaking a public education awareness programme for avifauna (EM.9)
- 10.2.7 The Panel notes the GWRC s42A report statement that Dr Uys remained concerned that the measures proposed by the Applicant to address the effects of the ongoing use of the path will expire after 10 years, while the ongoing effects of the Project will endure for the life of the Shared Pathway. Dr Uys recommended a condition of consent requiring the

development of Pest Management Plan, which has been adopted by the Applicant under condition EM.5.

- 10.2.8 During the hearing we heard from submitter Michael Rumble who has had extensive involvement in the management of little blue penguins and has been instrumental in setting up the Days Bay Penguin Haven. Mr Rumble expressed dissatisfaction with the Applicant's proposed protection and minimisation measures relating to Kororā / little penguins and sought a number of additional measures including keyholes in the rip-rap, a 300-400 mm vertical wall above the rip-rap, one-way flaps on drains, signage and long-term monitoring.

Findings on Little Blue Penguins - Kororā

- 10.2.9 Overall, we find that the effects on little blue penguins will be acceptable. In reaching our overall conclusion, and imposing conditions on the resource consent in relation to such effects, we have had regard to the following matters:
- 1) We recognise the extensive interest of the community in the management of effects on little penguins. We acknowledge Mr Rumble's dissatisfaction with the proposed mitigation measures. However, we find that the community's involvement in developing the Bird Protection Plan (BPP) required by condition EM.3 will allow parties (including Mr Rumble) to have meaningful input into the design of the proposed habitat enhancement areas.
 - 2) We note that a key objective of the BPP is to maintain or enhance habitat for Little Penguins and Shoreline Foragers along the Eastern Bays coast.
 - 3) The Panel accepts the expert evidence of the Applicant and Dr Uys, and considers that the temporary and long-term effects on little penguins can be appropriately managed. We also note that the mitigation areas (bird protection areas provided by Conditions EM.6 to EM.6E) provide for more habitat than that lost due to the Project's footprint.
 - 4) The Panel also recognises that dog exclusion measures require a bylaw to be implemented, which is a separate statutory process outside the scope of the resource consents. We recognise and endorse the contingency measures proposed by the Applicant if the bylaw sought is unsuccessful (EM.2).

10.3 Effects on Oystercatchers

- 10.3.1 Variable oystercatchers are the shoreline feeding bird species most likely to be impacted by loss of feeding habitat. The species is 'At Risk' nationally and is Vulnerable in the Wellington Region, which makes it a regionally Threatened species. Oystercatchers are territorial and therefore any reduction of oystercatcher territories (or loss of habitat) may be sufficient to adversely affect breeding success.
- 10.3.2 Within the national planning framework, the level of effect on 'Threatened' and 'At Risk' species with indigenous biological diversity values in the coastal environment is of significance. Policy 11 of the NZCPS states that activities must **avoid** adverse effects on indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists. The Applicant's opening submissions adopted the meaning of 'avoid' as set out in Memorandum 6 and Ms van Halderen's evidence which is that minor or transitory effects are acceptable within the context of an avoidance policy. Following the

hearing, the Panel sought an opinion from the Council's legal advisers about the meaning of 'avoid'. The opinion provided to us supported the Applicant's position.

- 10.3.3 As identified in the Applicant's opening legal submissions, a critical issue that remained unresolved between the Applicant and GWRC was the Project's effects on variable oystercatchers. The Applicant's expert, Dr Cockrem, was satisfied that the effects of the Project on oystercatchers would likely be less than minor, while GWRC's expert Dr Uys considered that the adverse effects may be more than minor.
- 10.3.4 Following the hearing, the experts continued to engage on this issue and agreed further amendments to the conditions. A joint statement of evidence from Dr Roger Uys and Dr John Cockrem was provided to the Panel on 22 January 2021. They have agreed that the amended conditions attached in the Applicant's right-of-reply will ensure that the effects of the Project on birds (with a focus on Kororā / little penguins and oystercatchers) will be, in Dr Cockrem's opinion, less than minor, and in Dr Uys' opinion, no more than minor. The conditions appropriately address the matters set out in paragraph 44 of Dr Uys' evidence of 17 December 2020.
- 10.3.5 Mitigation measures proposed by the Applicant include the development of the BPP, which seeks to maintain or enhance the level of habitat and species diversity after Project construction, by comparison to the diversity existing pre-construction. The BPP includes a number of measures to avoid or minimise adverse effects including: measures to limit disturbance to birds during construction (EM.4-EM.4D); the development of a Pest Management Strategy (EM.5); development of Bird Protection Areas (EM.6 -EM.6E); and developing a framework for a public education programme about avifauna (EM.9).

Findings on Variable Oystercatchers

- 10.3.6 We find that the effects on variable oystercatchers will be acceptable. In reaching our overall conclusion, and imposing conditions on the resource consent, we have had regard to the following matters:
- 1) The Panel has carefully considered the effects the proposal will have on variable oystercatchers. We agree with the findings of Dr Uys and Dr Cockrem that the actual or potential effects on variable oystercatchers will be either no more than minor, or less than minor.
 - 2) We consider that the mitigation measures proposed by the Applicant provide a robust framework for avoiding and minimising adverse effects on variable oystercatchers.

10.4 Seagrass

- 10.4.1 Three occurrences of seagrass (*rimurēhia*, *Zostera muelleri* subsp. *novazelandica*) of varied densities exist in the intertidal and subtidal zones at south Lowry Bay (total area 1,940 m²). A small number of flowering shoots of seagrass were found, an indicator of good seagrass health. Seagrass has a threat status of "At Risk-Declining" and the seagrass occurrence at Lowry Bay is the only known location remaining in Wellington Harbour.
- 10.4.2 The Applicant proposed mitigation measures to avoid and minimise effects on the seagrass beds. The measures include (but are not limited to) disposing of silts and clays from

excavation works off site; using coarser material during beach renourishment; and depositing imported beach sediment along the entire designated placement area, rather than in one discrete location.

- 10.4.3 We note the agreement of the GWRC s42A report with the assessment of the Applicant. The GWRC report concludes that potential effects on seagrass can be avoided or otherwise minimised, such that adverse effects are likely to be less than minor.
- 10.4.4 The Panel heard evidence from Dr Fleur Matheson on behalf of the Applicant and Dr Megan Oliver on behalf of the consent authority. During Dr Matheson's presentation the Panel requested an assessment of the Project against the Ecological Impact Assessment Guidelines New Zealand (EIANZ) tables. This is a methodology for assigning ecological value and describing the magnitude of effect and overall level of effects. Using the EIANZ assessment guidelines, seagrass was assigned a High ecological value and Dr Matheson assessed (conservatively) the magnitude of effect as Negligible and the overall level of effects as Very Low. Dr Oliver agreed with her assessment.
- 10.4.5 The Panel heard a presentation from submitter Amelia Geary (on behalf of Forest and Bird) who expressed concerns that not enough consideration was been given to seagrass. Her concerns included effects potentially arising from beach nourishment, and the need for ongoing monitoring of seagrass for unforeseen effects. As discussed above, both Dr Matheson and Dr Oliver have confirmed that in their expert opinion, the Project as currently proposed will avoid adverse effects on seagrass.
- 10.4.6 The Panel queried the Applicant (within Minute 3) about conditions EM.11(c) and EM.11(e). We were concerned that the process described in EM.11(e) would not facilitate a rapid response if it becomes apparent that adverse effects are occurring during the construction process. The Applicant accepted our concerns and amended the relevant conditions to:
- 1) Clarify that there can be no smothering of any part of the seagrass beds (Condition EM.11(c) - (e));
 - 2) Make it clear that no construction works are permitted occur within 2m of any seagrass bed (Condition EM.11(c)(v));
 - 3) Provide for monitoring and remedial actions to be undertaken if required (Condition EM.11(d) and (e)); and
 - 4) Reflect changes to the beach nourishment processes proposed, as discussed during the hearing (Condition EM.14(f) and (g)).

Findings on Seagrass

- 10.4.7 We find that effects on seagrass will be acceptable. In reaching our overall conclusion, and imposing conditions on the resource consent, we have had regard to the following matters:
- 1) Conditions have been designed to avoid effects on seagrass beds (EM.11 and EM.14);
 - 2) An adaptive management approach will be undertaken when managing the works, based on monitoring results and experience on the ground; and
 - 3) Adaptive management requires a good degree of trust in the system of data collection, monitoring and reporting - that said, we note that the Council will have general

oversight over the recommendations and implementation of any necessary remedial actions on seagrass (EM.11(e)).

11 Other Ecological Effects

Intertidal Ecology

- 11.1.1 Long-term effects on intertidal ecology within the Project area include permanent loss of habitat due to additional encroachment into the intertidal area, and permanent changes arising from the seawall surface. The proposal will result in the permanent loss of up to 3,000 m² (0.3 ha) of intertidal habitat and an additional 2,500 m² (0.25 ha) of backshore habitat above MHWS.
- 11.1.2 The Applicant has worked to minimise the extent of encroachment into the CMA through iterative design of the seawalls and types of treatments used in certain locations, and by orientating beach access steps and ramps parallel to the seawall. The Applicant proposes to further mitigate the loss and modification of intertidal habitat by providing texture and habitat complexity on the surface of the seawalls and revetments to facilitate colonisation by intertidal biota post-construction. These measures will be detailed in a proposed Seawall and Revetment Habitat Plan (SRHP) (EM.19).
- 11.1.3 The Panel heard from Dr Megan Oliver with respect to intertidal ecology. Dr Oliver stated that her main concerns were satisfied with regard to the Applicant's evidence. Dr Oliver also stated that ecology could improve due to the new seawall structures. Additional intertidal habitats may also be formed, such as rock pools which will help to mitigate any loss of habitat.

Freshwater Ecology

- 11.1.4 Throughout the Project length there are many stormwater and piped stream outlets that discharge to the intertidal zone. Several of these have relatively high-quality open stream channels that are known to, or are highly likely to have, freshwater fish present. Effects on fish passage attributed to the Project works are related to the potential for beach nourishment material to block stream outlets and for culvert extensions through the seawalls to create a perched overhang, thereby preventing or inhibiting fish passage.
- 11.1.5 The Applicant has proposed a number of measures to ensure fish passage is at least maintained or enhanced. These measures include avoiding initial placement of beach nourishment material within 10 m of existing outlets, monitoring and clearing stream outlets where necessary and designing outlets to ensure fish passage to be maintained or improved at the existing level.
- 11.1.6 Dr Evan Harrison was engaged by GWRC to review the application. In summary, he stated that the avoidance and mitigation measures proposed are appropriate and he supports the need for a freshwater ecologist with fish passage experience to be involved in the detailed design of the outlets. Dr Harrison also recommended that the culverts be monitored by way of a Monitoring Plan. GWRC's s42A report concludes that subject to the effective implementation of recommended conditions of consent, the effects on fish passage can be appropriately managed.

Findings on Intertidal Ecology and Freshwater Ecology

- 11.1.7 Overall, we find that the effects on Intertidal Ecology and Freshwater Ecology will be acceptable. In reaching our overall conclusion, and imposing conditions on the resource consent, we have had regard to the following matters:
- 1) Conditions of consent which require a Seawall and Revetment Habitat Plan, which includes the provision of creating additional habitat within constructed hard protection structures (EM.19);
 - 2) Conditions that ensure fish passage at key culverts is maintained or enhanced, both when undertaking culvert reconfiguration and beach nourishment (EM.12 and EM.14(h)); and
 - 3) The Panel's satisfaction that the effects are sufficiently addressed and agreed by the experts.

12 Coastal Processes

- 12.1.1 As noted previously, the Project is situated in the coastal environment, albeit in an environment that has been extensively modified, particularly by the construction of Marine Drive. Notwithstanding the work to be undertaken in the CMA (including the seawalls and rock revetments), through the evidence of Dr Richard Reinen-Hamill, the Applicant asserted there will only be minor changes to the coastal physical processes in and around the Project area.
- 12.1.2 In addition to this, the structures have been designed to be resilient to sea level rise, although the Applicant has acknowledged that this is not a long-term solution but simply buying some time. The Applicant considers that if the package of design proposals is implemented, the adverse effects from the construction and operation of the Project on coastal and physical processes will be negligible to minor.
- 12.1.3 The Project's assessment is endorsed within Dr Iain Dawe's (GWRC) review of the proposal. Dr Dawe did however recommend a number conditions to ensure that effects on coastal processes will be avoided and minimised to an acceptable level. All conditions recommended by Dr Dawe have been incorporated into the Applicant's proposed conditions.

Findings – Coastal Processes

- 12.1.4 We find that the effects on coastal processes will be no more than minor and acceptable. In reaching our overall conclusion, and imposing conditions on the resource consent, we have had regard to the following matters:
- 1) The relevant conditions cover a variety of matters including: construction techniques, types of materials, and the location of structures associated with works in the CMA;
 - 2) Mitigation measures including beach nourishment at York Bay, Lowry Bay and Point Howard; and
 - 3) Our satisfaction that the effects were sufficiently addressed and agreed by the experts.

13 Construction Effects

- 13.1.1 The Design Features Report (Appendix J) in the Application outlines the design details and construction methodology for the design features. The construction period is estimated at 6 years, taking a staged approach that will complete each bay in totality – with each section expected to take 3-6 months. In places, the Shared Pathway will be constructed opposite dwellings and in these locations, residents will be highly aware of the construction activity. In other locations, construction impacts will essentially be limited to traffic delays on Marine Drive.

Noise and Vibration – Construction Effects

- 13.1.2 Potential construction effects associated with the proposal include increased noise, vibration and dust during excavation of old seawalls and construction of the new seawalls. If not appropriately managed these effects have the potential to impact on residential and recreation amenity values.
- 13.1.3 The Applicant has proposed a condition which requires noise to be measured and assessed in accordance with NZS 6803:1999 *Acoustics – Construction Noise*. Both GWRC and HCC agreed that the noise and vibration effects of the proposal will be less than minor.
- 13.1.4 The Panel was concerned that the recommended resource consent conditions did not require any response should the noise thresholds be broken during construction. Given the proximity to sensitive residential properties, we recommended that the Applicant provide wording that requires the CEMP to incorporate or refer to a Monitoring Plan, primarily to cover ecology matters – but also noted the usefulness of this approach for matters such as noise and construction traffic. The Applicant made amendments to condition GC.7, but we have further refined this by including a reference to considering the need for noise and construction traffic monitoring (GC.7(cc)).

Stormwater – Construction Effects

- 13.1.5 During the construction phase, disturbance of the seabed, dewatering discharges and discharges from land-based earthworks may result in increases in suspended sediment and turbidity of the water column.
- 13.1.6 Increased turbidity reduces light penetration and consequently visibility in the water column, impacting primary production of benthic biota and thus reducing a key food source of suspension feeders, herbivorous benthic grazers and deposit feeders. Decreased visibility can also impact on the ability of predators to find their prey.
- 13.1.7 The Applicant assessed the impact of construction related activities on water quality, based on the construction methodology presented in the Design Features Report. The construction methodology includes a number of measures to reduce construction effects relating to the release of sediment and other contaminants that may affect water quality. These measures are summarised within Section 12.6.2 of GWRC's s42A report.
- 13.1.8 GWRC's s42A report details additional measures to avoid and minimise sediment release, including conditions of consent requiring the Applicant to report and remedy any sediment release events and requiring the Applicant to abide by certain sediment thresholds.

- 13.1.9 The Panel notes that Dr Oliver reviewed the application and the supporting Intertidal Ecology Assessment with regard to the impacts of sedimentation and other contaminants on marine ecology (including seagrass) during construction and was satisfied with the proposed mitigation measures.

Contaminated Land – Construction Effects

- 13.1.10 Potential effects on human health and the environment may occur if contaminated land is disturbed and/or used during the construction of the Project in the vicinity of the Sunshine Bay Garage. The garage is on the landward side of the road against the base of the hill so is well separated from the proposed Shared Pathway.
- 13.1.11 However, the Application states that once the detailed design is complete it may be necessary to undertake a detailed assessment of the contaminated site. Subject to the findings of that assessment, it may then be necessary to seek a resource consent for managing soil contamination.
- 13.1.12 Due to the proximity of the works to the Garage, the Panel considered that an accidental contamination discovery protocol should be incorporated into the conditions of consent. We have added this as new condition GC.15.

Findings – Construction Effects

- 13.1.13 We find that the construction effects will be acceptable, subject to imposing conditions on the resource consent. In reaching our overall conclusion, we have had regard to the following matters:
- 1) We acknowledge that construction activity will be occurring continuously from later 2021 for approximately 6 years. Construction has the potential to create significant ongoing nuisance to residents.
 - 2) The Panel recognises the mitigating factors in determining the level of effects, which include only constructing short sections at certain times (approximately 20m at a time).
 - 3) There is a suite of conditions regarding construction management. The CEMP includes a comprehensive list of matters to be addressed (refer condition GC.7 for example Erosion Sediment Control (ESC), rubbish, machinery, noise, contaminated land).
 - 4) We agree with the Applicant and accept Dr Oliver's review in that the construction effects are likely to be no more than minor, and consider that the monitoring and contingency plans provided by the Applicant via the CEMP will be sufficient.

14 Heritage Effects

Atkinson Tree – Heritage

- 14.1.1 The project requires the removal of a planted pōhutukawa within York Bay beach known as the Atkinson Tree. The Atkinson Tree appears to be located close to the middle of the proposed Shared Pathway with little ability to deviate around the tree or to narrow the pathway at this point.

- 14.1.2 In Mr Kellow's s42A report, he notes that the Atkinson tree is not protected by the general district wide provisions or by regional plans, and resource consent is therefore not required to remove the tree. Nevertheless, the BSUDP process may be an opportunity to further explore any options that exist for retaining or replacing the tree.
- 14.1.3 The Panel acknowledges the value that the tree holds for some members of the community. We make no finding on the value of Atkinson tree and adopt Mr Kellow's findings in this regard. We further acknowledge that the BSUDP process may find an opportunity to retain the tree.

Skerrett Boatshed – Heritage

- 14.1.4 The listed historic Skerrett Boatshed (1906) at Lowry/Whiorau Bay is located beside the Shared Pathway. This structure is a historic building (Category 2: Heritage Listing #3580) and is identified in Appendix 4: Features and buildings of historic merit in the RCP and Schedule E1 Historic heritage structures of the PNRP (and Map C6 of the District Plan).
- 14.1.5 The Shared Pathway will narrow at this location and the boatshed will not be directly impacted. The Panel did note that the narrowing of the pathway around this location may need to be addressed in the BSUDP. The Panel subsequently determined that there will be no effect on heritage values with respect to the Skerrett Boatshed.

Findings – Heritage

- 14.1.6 We find that effects on the Skerrett Boatshed will be acceptable. In reaching that conclusion, and imposing conditions on the resource consent, we accept that the BSUDP process will provide the ability to consider an appropriate path width in this location.
- 14.1.7 We make no specific finding on the Atkinson tree and again accept that the BSUDP process will provide the ability to consider options.

15 Section 104(1)(b) Consideration of Statutory Instruments

We accept that relevant provisions from the following statutory instruments have been appropriately identified by the planning experts. We have had regard to these in reaching our decision and making our recommendation.

15.1 New Zealand Coastal Policy Statement (NZCPS)

- 15.1.1 Mr Watson's Section 42A report provides a thorough assessment of the proposed activities against the RPS provisions. We adopt his recommendations in a general sense, subject to the comments made below.
- 15.1.2 In Mr Watson's opinion, the proposal is partly inconsistent with Objective 1, and inconsistent with Policy 11. This matter is discussed in detail by the following paragraphs.
- 15.1.3 The Panel also considers it necessary to provide further commentary on NZCPS Policies 5 and 10.

NZCPS Policy 11 – Indigenous Biological Diversity

- 15.1.4 This policy aims to protect 'Threatened' and 'At Risk' species with indigenous biological diversity values in the coastal environment. The following species affected by the proposal require consideration under Policy 11:
- 1) Little penguin, variable oystercatcher, red-billed gull, black shag, little black shag and pied shag and their habitat;
 - 2) Seagrass beds in Lowry Bay; and
 - 3) Small gravel beaches in all five bays that are classified as an endangered, historically uncommon ecosystem (shingle beaches).
- 15.1.5 As noted in section 10.3 of our decision, case law confirms that minor or transitory effects are acceptable within the context of an avoidance policy.
- 15.1.6 GWRC's reporting officer suggested broad consistency with the NZCPS subject to reservations about potential effects on variable oystercatchers. Since that time, the avifauna experts have agreed a mitigation package that will render effects on variable oystercatchers to a level that is no more than minor.
- 15.1.7 Accordingly, the Panel concludes that the Project sufficiently 'avoids' effects on 'Threatened' and 'At Risk' species with indigenous biological diversity values in the coastal environment and is therefore consistent with NZCPS Policy 11.
- 15.1.8 Given the potential effects on coastal ecology, and given also that the Panel may decline the Applications if they are "inconsistent with" a National Policy Statement (NPS) with or without conditions, the Panel has considered carefully how the phrase "inconsistent with" should be interpreted and applied.
- 15.1.9 Here the Panel adopts the findings of the decision made on the Te Ara Tupua - Ngā Ūranga Ki Pito-one Shared Pathway released on 11 December 2020, and proceeds on the basis of the meaning given by the Court of Appeal and the Environment Court which essentially adopts the dictionary definition as "not in keeping; discordant; or incompatible". In adopting this position, the Panel is aware of the statutory obligation under Section 5 of the Interpretation Act 1999 that the Act must be read in the light of its purpose.

Policy 10 - Reclamation

- 15.1.10 This policy sets out a framework for assessing whether reclamation of land in the CMA is a suitable use of the CMA and, where it is suitable, things to consider in the form and design of the reclamation.
- 15.1.11 Policy 10(1) of the NZCPS requires reclamation in the CMA to be avoided unless the tests in clauses (a) - (d) of that Policy are met.
- 15.1.12 The Marine Drive coastal edge is currently constrained by the CMA, the live road carriageway and existing built development on the landward side. We are satisfied that, without significant property purchase and earthworks, there is no land outside the CMA that could accommodate the Shared Pathway. In this respect, the Panel considers that the proposal meets clauses (a) - (c).

- 15.1.13 When considering (d) we agree with the Applicant in that the Project will connect the Eastern Bays to other regional and nationally significant cycle routes including the Great Harbour Way and the Remutaka Cycle Trail. This is likely to have significant economic and tourism benefits, at a regional scale and potentially the national scale. The Shared Pathway also provides additional protection for Marine Drive from coastal hazards in the short medium term and provides an additional buffer between coastal hazards and the MOP outfall pipeline. The Panel therefore considers that the Project also provides significant regional resilience benefits from coastal erosion and sea level rise.
- 15.1.14 Policy 10(2) of the NZCPS requires that where a reclamation is considered to be a suitable use of the CMA, particular regard is to be given to a number of matters. The Panel considers that the proposal has had sufficient regard to each clause and provides for each where applicable.
- 15.1.15 Policy 10(3) of the NZCPS requires that regard must be given to the extent to which the reclamations intended purpose would provide for the efficient operation of specified infrastructure. We consider that all elements of this clause have been sufficiently addressed and note that the reclamation will provide greater resilience to the road and the sewer pipeline that it is in part protecting.
- 15.1.16 Overall, we agree with the Applicant and consider the proposal consistent with Policy 10 of the NZCPS.

Policy 5 - Land or waters managed or held under other Acts

- 15.1.17 Policy 5 focuses on considering and managing effects on coastal land or waters that are held or managed under other Acts (i.e. not the RMA) for conservation or protection purposes.
- 15.1.18 The Panel notes that a portion of the footprint of the proposal will encroach into reserve land (with respect to Whiorau/Lowry Bay), we consider that any activities in those reserves are considered consistent with the intention of those reserves.

15.2 Wellington Regional Policy Statement

- 15.2.1 Mr Watson's Section 42A report provides a thorough assessment of the proposed activities against the RPS provisions. We generally adopt his recommendations, subject to comments made below.
- 15.2.2 Chapter 3.2 of the RPS is particularly relevant to this application. Mr Watson noted that the proposal was inconsistent in part with Policies 35 and 37 with respect to the potential adverse effects on oystercatchers. Since the hearing, amendments to proposed mitigation package have been made and the relevant experts have concluded that the effects will be no more than minor or less than minor.
- 15.2.3 With appropriate mitigation measures and the recommended conditions of consent, we are satisfied that the proposed activity is consistent with the policies in the RPS.

15.3 Proposed Natural Resources Plan and Operative Regional Plans

- 15.3.1 Mr Watson's Section 42A report provides a thorough assessment of the proposed activities against the provisions of the RCP and PNRP. We adopt his recommendations in a general sense, subject to comments made below.
- 15.3.2 Mr Watson noted that the proposal was inconsistent in part with Policy P31(e) and Objective O35, and may be contrary to Policy P39A and Policy P40 of the PNRP. Mr Watson also noted that the proposal may be inconsistent (either in full or in-part) with Objectives 4.1.2 and 5.1.3 and Policies 4.2.10, 5.2.5 and 6.2.2 of the RCP. Since the hearing, amendments to proposed mitigation package have been made and the relevant experts have concluded that the effects will be no more than minor or less than minor.
- 15.3.3 With appropriate mitigation measures and the recommended conditions of consent, the Panel is satisfied that the proposed activity is consistent with the policies in the PNRP and the RCP.

15.4 Hutt City District Plan

- 15.4.1 Mr Kellow's evidence and s42A report respectively, provided a thorough identification of relevant district plan provisions, and assessments against those provisions.
- 15.4.2 Mr Kellow noted broad consistency with most aspects of the district plan, we adopt his recommendations in a general sense, subject to comments made below.
- 15.4.3 The Panel notes that Mr Kellow's s42A report does not make a conclusion on whether the proposal is consistent with Objective 7A 1.2.1 of the Hutt City District Plan, stating that due to the lack of detailed design, a firm conclusion cannot be reached with respect to (a) of Objective 7A 1.2.1. While we largely agree with Mr Kellow's assessment, we consider that the Landscape and Urban Design Plan (LUDP) proposed by the Applicant will ensure that the any adverse effects on the amenity values of adjoining residential areas that are no more than minor. To that end, we are satisfied that the proposal is not inconsistent with Objective 7A 1.2.1.

16 Section 104(1)(c) Consideration of Other Matters

- 16.1.1 Section 14 of Mr Watson's s42A report noted a number of other relevant matters under s104 (1)(c) of the RMA. These included; The Government Policy on Land Transport 2018, Regional Land Transport Plan, Sea Level Rise Guidance, Marine and Coastal Area (Takutai Moana) Act 2011, and the Draft Hazard Management Strategy for the Wellington Region 2016.
- 16.1.2 We also consider these to be relevant matters and agree with Mr Watson's comments and adopt these.
- 16.1.3 We also note that the Applicant is relying on regulatory processes outside the RMA to secure dog control measures (EM.2). If these processes fail, however, then the Applicant has provided contingency measures. We are satisfied with these measures and are comfortable with this approach.

17 Section 104D – Non-Complying Activity

- 17.1.1 Following accepted legal and planning practice, the consent activities that make up the Project have been 'bundled' with respect to activity status. As noted in sections 4.1 and 4.2 of our decision, the status of the various activities include those which are controlled, restricted discretionary, discretionary, and non-complying. When bundled, the overall activity status of a proposal must adopt the most restrictive activity status – which in this case is non-complying.
- 17.1.2 The single non-complying activity, which is subject to Rule R198 of the PNRP, is the use of motor vehicles within foreshore or seabed, if the site is inside a habitat identified in any of the various Schedules listed by the Rule. In this case, the foreshore and seabed areas are within Schedule F2c (birds – coastal) of the PNRP. The motor vehicles in this case will be construction vehicles necessary for works such as the seawalls, rock revetments, and beach nourishment.
- 17.1.3 As the application falls for consideration as a non-complying activity, pursuant to Section 104D of the Act a 'gateway test' is required to be met before a decision on whether consent can be granted. Section 104D prescribes that the consent authority may proceed to the substantive assessment (s104), and make a decision on whether to grant a resource consent application for a non-complying activity, only if it is satisfied that either:
- 1) the adverse effects of the activity on the environment will be minor; or
 - 2) the application is for an activity that will not be contrary to the objectives and policies of the relevant plan (in this case, the operative RCP and the PNRP).
- 17.1.4 The Panel notes that Mr Watson's s42A report did not make a finding on whether the application can pass through the gateway test due to uncertainties regarding effects on variable oystercatchers.
- 17.1.5 Mr Watson's s42A report states that if the Applicant can demonstrate that effects on variable oystercatchers will be appropriately managed, then he considers the proposal will be consistent with both parts of the 'gateway test'. That is, the proposal is not contrary to the objectives and policies of the PNRP or the RCP and the effects will be no more than minor (or less than minor).
- 17.1.6 As discussed within Section 10 of our decision, the Applicant has proposed a suite of mitigation measures that will ensure the effects on variable oystercatchers and penguins will be managed to a level that is less than minor or no more than minor, in the respective expert opinions of Dr Cockrem and Dr Uys. Their advice is based on the overall package of proposed mitigation which includes new bird protection areas that are intended to mitigate the extent of the effects on seabirds.
- 17.1.7 Based on that evidence we are satisfied that the proposal can meet both gateway tests under s104D. We therefore find that we are in the position of being able to grant resource consent if we so wish. The fact that the only non-complying activity element of the project is the presence of motor vehicles within the foreshore or seabed, the effects of which will be transitory, has also influenced our decision-making in this matter.

18 Sections 105 and 107 – Discharge and Reclamation

18.1.1 With regard to discharges, the Act requires us to consider certain matters. These are set out by sections 105 and 107. Section 105(2) also requires us to consider reclamation, which we briefly address in paragraph 18.1.7 below.

105 Matters relevant to certain applications

- (1) *If an application is for a discharge permit or coastal permit to do something that would contravene section 15 or section 15B, the consent authority must, in addition to the matters in section 104(1), have regard to—*
 - (a) *the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
 - (b) *the Applicant's reasons for the proposed choice; and*
 - (c) *any possible alternative methods of discharge, including discharge into any other receiving environment.*
- (2) *If an application is for a resource consent for a reclamation, the consent authority must, in addition to the matters in section 104(1), consider whether an esplanade reserve or esplanade strip is appropriate and, if so, impose a condition under section 108(2)(g) on the resource consent.*

107 Restriction on grant of certain discharge permits

- (1) *Except as provided in subsection (2), a consent authority shall not grant a discharge permit or a coastal permit to do something that would otherwise contravene section 15 or section 15A allowing—*
 - (a) *the discharge of a contaminant or water into water; or*
 - (b) *a discharge of a contaminant onto or into land in circumstances which may result in that contaminant (or any other contaminant emanating as a result of natural processes from that contaminant) entering water; or*
 - (ba) *the dumping in the coastal marine area from any ship, aircraft, or offshore installation of any waste or other matter that is a contaminant —*
if, after reasonable mixing, the contaminant or water discharged (either by itself or in combination with the same, similar, or other contaminants or water), is likely to give rise to all or any of the following effects in the receiving waters:
 - (c) *the production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials:*
 - (d) *any conspicuous change in the colour or visual clarity:*
 - (e) *any emission of objectionable odour:*
 - (f) *the rendering of fresh water unsuitable for consumption by farm animals:*
 - (g) *any significant adverse effects on aquatic life.*
- (2) *A consent authority may grant a discharge permit or a coastal permit to do something that would otherwise contravene section 15 or section 15A that may allow any of the effects described in subsection (1) if it is satisfied—*
 - (a) *that exceptional circumstances justify the granting of the permit; or*
 - (b) *that the discharge is of a temporary nature; or*
 - (c) *that the discharge is associated with necessary maintenance work—*
and that it is consistent with the purpose of this Act to do so.

- (3) *In addition to any other conditions imposed under this Act, a discharge permit or coastal permit may include conditions requiring the holder of the permit to undertake such works in such stages throughout the term of the permit as will ensure that upon the expiry of the permit the holder can meet the requirements of subsection (1) and of any relevant regional rules.*

18.1.2 The relevance and implications of these Sections of the Act are set out in Mr Watson's s42A report and noted in the evidence of Ms van Halderen. In summary, the Project elements that must be considered in light of Sections 105 and 107 are:

- The discharge of sediment-laden water (from construction)
- The reclamation of the CMA to provide for a Shared Pathway

18.1.3 As noted by Mr Watson, drawing on the advice of Dr Oliver and subject to the effective implementation of recommended conditions, the potential effects on water quality during construction works can be kept within an acceptable level. We consider that the conditions proposed by Mr Watson will limit effects, such that any conspicuous changes in colour or clarity will be only temporary on any individual occasion, and well capable of management over the life of the construction project.

18.1.4 In making our findings, we have had regard to the matters set out by Section 105(1) of the RMA. We have also taken into account the opinions of the marine ecology experts who are satisfied that the works, including discharges, will not have a significantly adverse effect on coastal and marine life.

18.1.5 We accept that the specific nature of the Project works area influences the need for a discharge permit. Discharging to a different receiving environment, such as land, is not a feasible option.

18.1.6 Section 105(2) of the Act states that for resource consent applications for reclamation, the consent authority must also consider whether an esplanade reserve or esplanade strip is appropriate.

18.1.7 Regarding reclamation, Mr Watson's assessment states that as:

- 1) public access to the CMA is already provided, and
- 2) the Project seeks to enhance that access, and that
- 3) once constructed the Shared Pathway would become part of the road reserve.

He therefore considers an esplanade strip would serve no useful purpose.

18.1.8 The Panel agrees with Mr Watson, in that there is no need for an esplanade reserve because the reclamation is becoming road reserve and will provide at least equivalent access outcomes.

19 Part 2 RMA Assessment

19.1 Part 2 Analysis

19.1.1 In making a consent decision, Section 104(1) of the RMA requires our consideration to be subject to Part 2 of the Act (being Sections 5 to 8).

- 19.1.2 In their assessment and expert evidence, the planners provided robust analyses of the application against Part 2 of the RMA.
- 19.1.3 RMA Section 6 identifies matters of national importance including natural character, significant indigenous vegetation and relationships of Māori with their culture and traditions. The expert planners all considered the proposal is consistent with the relevant Section 6 provisions, provided the potential adverse effects on oystercatchers can be managed to an appropriate level. As previously discussed, a resolution has been sought and the effects on oystercatchers are now considered to be less than minor or no more than minor. The Panel therefore considers that the proposal is consistent with Section 6 of the RMA.
- 19.1.4 RMA Section 7 'other matters' requires the consideration of the proposal relating to the management, use, development, and protection of natural and physical resources. This includes maintenance and enhancement of amenity value, intrinsic value of the ecosystem, quality of the local environment and the effects on climate change.
- 19.1.5 RMA Section 8 identifies the principles of the Treaty of Waitangi. All three expert planners considered the approach taken by the Applicant to directly engage with the two relevant Iwi groups who have statutory recognition was appropriate.
- 19.1.6 All expert planners considered that, in relation to Part 2 matters, any relevant effects will be avoided, remedied or mitigated to an acceptable level provided that the consent conditions are adopted.

19.2 Status of Planning Instruments

- 19.2.1 Although parts of Hutt City's District Plan have been updated over time, many of its provisions are essentially unchanged from the original. We understand that a fully reviewed district plan is expected to be notified late this year. Given its age, the District Plan could be considered as 'out of step' with the RPS (among other planning documents), changes to the RMA, and relevant case law which affects the development and interpretation of policy. However, following the review and analysis by Mr Kellow and Ms van Halderen, we are satisfied that the District Plan's policy framework presents no obstacles to the consent sought by the Applicant.
- 19.2.2 We have reached a similar conclusion in relation to regional documents and Mr Watson's analysis, having regard to the operative plans and the status of the PNRP. That is, regional policy and plan frameworks present no obstacles to the resource consents. The Panel accepts the findings of Mr Watson's s42A report.

20 Conditions and Duration

20.1 Conditions

- 20.1.1 The Applicant's closing legal submissions / right of reply provided tracked changes versions of draft conditions for the resource consents. These condition sets included changes agreed between the expert planners on behalf of the parties they represent, and some instances of differing or disputed conditions or wording.

- 20.1.2 We have accepted the draft conditions provided to us with refinements agreed to by the expert planners on behalf of the parties they represent. We have also made revisions to some conditions as indicated elsewhere in our decision. The conditions are issued as a separate document (Appendix 1 to the decision).

20.2 Duration

- 20.2.1 The Panel adopts the recommendations of Mr Watson, and these are repeated below for clarity.
- 20.2.2 Pursuant to Section 125 of the Act and at the request of the applicant, the Panel recommends a lapse date of ten (10) years from the date of the commencement of this resource consent. We consider this is an appropriate lapse period as it allows sufficient time for the works to commence, with contingency in the event that there are delays.
- 20.2.3 Section 123(a) of the Act allows for a coastal permit in respect of reclamation [36233] to be granted in perpetuity, unless otherwise specified in the consent. We consider granting the consent for the reclamation of the foreshore in perpetuity to be appropriate, as the reclamation is effectively permanent.
- 20.2.4 Section 123(c) of the Act allows for a coastal permit to do something other than reclamation to be granted for a period not exceeding 35 years. We recommend that a duration of 35 years is appropriate for the consent related to permanent structures [36233], as the structures are permanent. This duration is consistent with other consents for permanent coastal structures granted by GWRC.
- 20.2.5 In relation to the construction-related consents [37298; earthworks and associated discharges], [37299; discharge permit] and [37300; water permit] under Section 123(d), the maximum duration the consents could be granted for is up to 35 years. We recommend a duration of 10 years for the construction-related permits. This duration will allow sufficient time for the works to be completed, with contingency in the event that the works are delayed.

21 Decision

- 21.1.1 We consider after having regard to all relevant matters that the single purpose of the RMA is best served by GWRC and HCC granting the resource consents on terms set by the conditions contained in Attachments 1 and 2.
- 21.1.2 Key reasons for our decision include:
- 1) Agreement between technical experts that, collectively and together with the proposed mitigation measures, the adverse effects of the Project will be no more than minor or transitory. This is especially pertinent when considering effects that policy documents (such as the NZCPS) seek to 'avoid'.
 - 2) Legal opinions provided to us by the Applicant and counsel acting for GWRC confirmed that use of the word 'avoid' in planning policy documents can be construed to exclude situations where effects are no more than minor, or where they are transitory.

- 3) Significant engagement by the Applicant with Mana Whenua and the community in general. This has influenced general design concepts, and there will be ongoing engagement with Mana Whenua through the MWSG and the community in general to refine the design through avenues such as the BSUDPs.
- 4) Significant mitigation related to seabird habitats has been proffered by the Applicant to the point that the experts agree the proposal will have minor or no more than minor adverse effects on seabirds.
- 5) The range of community benefits that will accrue from the Project. These include safety, connectivity, recreational amenity and infrastructure resilience.

22 Acknowledgements

- 22.1.1 We would like to thank the participants for their constructive engagement in the process. Although the outcomes of our decision and recommendation may not be what some submitters sought, we acknowledge the significant effort that they have put into engaging with the process. We also acknowledge all individual written submissions and personal appearances which we found valuable in providing additional context for the issues we needed to consider.
- 22.1.2 The careful assessment, investigation and response to individual issues and environmental effects by the Applicant and other parties was appreciated.
- 22.1.3 We would also like to acknowledge the collaborative work of the technical experts and planners involved in this matter. Finally, we gratefully acknowledge the assistance to the Panel provided by the hearing administrators before, during and after the hearing.

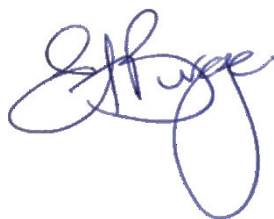
Robert Schofield (Chairperson)



Mark Ashby



Elizabeth Burge



Date: 5 March 2021

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Appendix 1 - Proposed Resource Consent Conditions

Definitions

The table below defines the acronyms and terms used in the conditions below.

Acronym/Term	Definition
BSUDPs	Bay Specific Urban Design Plans.
BNP	Beach Nourishment Plan.
BPP	Bird Protection Plan.
CEMP	Construction and Environmental Management Plan.
Certify, certification and certified	In relation to a management plan, means assessed by Council staff acting in a technical certification capacity and, in particular, whether the document or matter is technically consistent with the requirements contained within the conditions of this consent.
CMA	Has the same meaning as 'coastal marine area' in section 2 of the RMA.
Commencement of Construction	The time when Construction Works (excluding site investigations and Enabling Works) for the Project (or a part of the Project) commence.
Completion of Construction	When construction of the Project (or part of the Project) is complete.
Construction Works	One or more of the various activities (excluding site investigations and Enabling Works) undertaken under these resource consents.
Consent Holder	Hutt City Council.
Enabling Works	Includes the following and similar activities: (a) geotechnical investigations (including in the CMA), including access on land for these investigations; (b) establishing site yards, site offices, site entrances and fencing; (c) establishing bird protection areas for Little Penguin and Shoreline Forager populations and an oystercatcher protection area; (d) demolition or removal of buildings and structures; (e) relocation of services; and (f) establishing minimisation measures (such as erosion and sediment control measures).
HNZPT	Heritage New Zealand Pouhere Taonga.
Little Penguin	NZ little penguin (<i>Eudyptula minor</i> , kororā).
Little Penguin Interest Group	Department of Conservation, Mike Rumble, Eastbourne Pest Control and Forest & Bird.
LU DP	Landscape and Urban Design Plan.
Manager, Environmental Regulation	The Manager, for the time being, of the Environmental Regulation Department, Wellington Regional Council.
MHWS	Mean High Water Springs.
Project	The design, construction, operation and management of the Eastern Bays Shared Path Project and associated works.



Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~^{22 January} 2021.

Acronym/Term	Definition
RMA	Resource Management Act 1991.
Shoreline Forager	Variable oystercatcher and red-billed gull.
SRHP	Seawall and Revetment Habitat Plan.
Team Leader, Resource Consents	The Team Leader for the time being of the Resource Consent Department, Hutt City Council.
TMP	Traffic Management Plan.
Working day	Has the same meaning as in section 2 of the RMA.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

General Conditions (GC)

Ref	Condition
<i>General and Administration</i>	
GC.1	Except as modified by the conditions below (including certified management plans), the Project shall be undertaken in general accordance with the information provided by the Consent Holder: (a) in the consent application and associated plans and documents lodged with the Wellington Regional Council on 12 April 2019; (b) in response to further information requests; and (c) in its evidence for the Hearing Panel.
GC.2	Where there is inconsistency between: (a) information provided by the Consent Holder under Condition GC.1, the most recent information and plans shall prevail; and (b) information provided by the Consent Holder under Condition GC.1 and the conditions of consent, the conditions shall prevail.
<i>Pre-construction Administration</i>	
GC.3	The Consent Holder shall notify the Manager, Environmental Regulation in writing of the proposed date of the Commencement of Construction at least 20 working days prior to that date.
GC.4	The Consent Holder shall provide a copy of this consent and any documents and plans referred to in this consent to each operator or contractor undertaking works authorised by this consent at least 10 working days prior to the Commencement of Construction.
<i>Management Plan Approval Process</i>	
GC.5	(a) Conditions (b) to (k) below apply to <u>the CEMP (Condition GC.6) and the all management plans listed in Condition GC.8 required by these conditions.</u> (b) All management plans shall be prepared in consultation with relevant suitably qualified and experienced persons. (c) All management plans shall be reviewed by suitably qualified and experienced persons (as appropriate). (d) All management plans shall be submitted to the Manager, Environmental Regulation and/or the Team Leader, Resource Consents (as relevant) for certification at least 30 working days prior to the Commencement of Construction <u>for the Project or, if construction is staged, then at least 30 working days prior to Commencement of Construction on the relevant stage of the Project.</u> (e) All management plans shall provide the overarching principles, methodologies and procedures for managing the effects of the construction of the Project to achieve the environmental objectives, outcomes and performance standards required by these conditions. (f) All management plans may be submitted for certification in parts or in stages to address particular activities or to reflect the staged implementation of the Project and shall clearly show the linkages with plans for adjacent stages and interrelated activities.

Commented [A1]: Responds to Question 7.

Commented [A2]: Responds to Question 11.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~22 January 2021.

Ref	Condition																				
	(g) Any certified management plan may be amended, if necessary, to reflect any minor changes in design, construction methods, or the management of effects. Any amendments are to be discussed with and submitted to the Manager, Environmental Regulation and/or the Team Leader, Resource Consents (as relevant) to inform them of the change, unless those amendments would result in a materially different outcome to that described in the original plan. Those minor amendments do not require certification, but the updated plan must be provided to the Manager, Environmental Regulation and/or the Team Manager, Resource Consents (as relevant). (h) Any material amendments to a certified management plan shall be submitted to the Manager, Environmental Regulation and/or the Team Leader, Resource Consents (as relevant) for certification. Any material amendment must be consistent with the purpose of the relevant management plan and the requirements of the relevant conditions of these consents. (i) If no comments are received on a management plan submitted under (d) or an amended management plan in (h) within 15 working days, then the management plan is deemed to have been certified and the Consent Holder may implement the plan or the changes. (j) Should the Manager, Environmental Regulation and/or the Team Leader, Resource Consents (as relevant) refuse to certify a management plan, or a part or stage of a management plan, the Consent Holder shall submit a revised management plan (or part or stage) for certification as soon as practicable. Should certification of the revised plan (or part or stage) be refused, then the Consent Holder must, within 10 working days of the refusal, engage a suitably qualified, mutually acceptable independent expert to resolve the matters in dispute. The expert shall resolve the matters within 10 working days of being engaged and his or her decision shall be final. The cost of such a process will be met by the Consent Holder. (k) All works and monitoring shall be carried out in general accordance with the certified management plans. <i>Advice note: Management plans must be emailed to notifications@gw.govt.nz or resourceconsents@huttcity.govt.nz and include the reference WGN190301 or RM190124 (as relevant) and the name and phone number of a contact person responsible for the proposed works.</i> <i>Advice note: Any preliminary works which do not require resource consent or are permitted activities can be undertaken prior to the certification of any management plans.</i> <u><i>Advice note: Responsibility for certification, monitoring and enforcement of the various plans and management plans is as follows:</i></u> <table><tr><th></th><th><u>Manager, Environmental Regulation (GWRC)</u></th><th><u>Team Leader, Resource Consents (HCC)</u></th><th><u>Condition(s)</u></th></tr><tr><td><u>Engineering Plans and Specifications</u></td><td><u>✓</u></td><td></td><td><u>C.1 – C.3</u></td></tr><tr><td><u>Landscape and Urban Design Plan (LUDP)</u></td><td><u>✓</u></td><td><u>✓</u></td><td><u>LV.1 – LV.4</u></td></tr><tr><td><u>Bay Specific Urban Design Plans (BSUDP)</u></td><td><u>✓</u></td><td><u>✓</u></td><td><u>LV.5 – LV.7</u></td></tr><tr><td><u>Beach Nourishment Plan (BNP)</u></td><td><u>✓</u></td><td></td><td><u>EM.13 – EM.18</u></td></tr></table>		<u>Manager, Environmental Regulation (GWRC)</u>	<u>Team Leader, Resource Consents (HCC)</u>	<u>Condition(s)</u>	<u>Engineering Plans and Specifications</u>	<u>✓</u>		<u>C.1 – C.3</u>	<u>Landscape and Urban Design Plan (LUDP)</u>	<u>✓</u>	<u>✓</u>	<u>LV.1 – LV.4</u>	<u>Bay Specific Urban Design Plans (BSUDP)</u>	<u>✓</u>	<u>✓</u>	<u>LV.5 – LV.7</u>	<u>Beach Nourishment Plan (BNP)</u>	<u>✓</u>		<u>EM.13 – EM.18</u>
	<u>Manager, Environmental Regulation (GWRC)</u>	<u>Team Leader, Resource Consents (HCC)</u>	<u>Condition(s)</u>																		
<u>Engineering Plans and Specifications</u>	<u>✓</u>		<u>C.1 – C.3</u>																		
<u>Landscape and Urban Design Plan (LUDP)</u>	<u>✓</u>	<u>✓</u>	<u>LV.1 – LV.4</u>																		
<u>Bay Specific Urban Design Plans (BSUDP)</u>	<u>✓</u>	<u>✓</u>	<u>LV.5 – LV.7</u>																		
<u>Beach Nourishment Plan (BNP)</u>	<u>✓</u>		<u>EM.13 – EM.18</u>																		

Commented [A3]: Responds to Question 6.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition			
	Bird Protection Plan (BPP) including monitoring	✓		EM.3 – EM.9
	Seawall and Revetment Habitat Plan (SRHP)	✓		EM.19
	Construction Environmental Management Plan (CEMP)	✓	✓	GC.6 – GC.10
	Traffic Management Plan (TMP)		✓	GC.11-GC.13
	Monitoring of seagrass	✓		EM.11(c) – (e)
	Monitoring of fish passage	✓		EM.12 (c)
Construction and Environmental Management Plan				
GC.6	(a) The Consent Holder shall prepare a CEMP for the relevant Project stage (excluding site investigations and Enabling Works) and submit this to the Manager, Environmental Regulation in accordance with the requirements of Condition GC.5. Commencement of Construction shall not occur until certification is obtained. (b) The purpose of the CEMP is to: (i) Confirm final Project details; (ii) Ensure that the Construction Works remain within the limits and standards approved under the consent; and (iii) Set out the management procedures and construction methods to be undertaken to avoid or minimise adverse effects arising from the Construction Works. <i>Advice note: Any investigations or works outside of those consented which penetrate groundwater and/or any contaminated land investigations that do not comply with permitted standards will require separate consents.</i>			
GC.7	The CEMP shall include: (a) Confirmation of the proposed staging and sequencing of construction, including staging of the Construction Works by bay. Continuous areas of seawall being constructed shall be limited to a stipulated length as set out in the CEMP and determined on a bay by bay basis. Works in the subtidal areas shall reflect Condition C.6(d) in that there is flexibility in terms of maximum length of seawall construction for works in these areas, but not for works outside of the subtidal areas. (b) An outline construction programme that takes into account timing constraints in these conditions and the management plans listed in Condition GC.8; (c) The final construction methodologies; (d) Contact details of the site supervisor or project manager and the Consent Holder's Project liaison person (phone, postal address, and email address); (e) Methods and systems to inform and train all persons working on the site of potential environmental issues and how to avoid or minimise potential adverse effects, including in relation to the relocation of fish under Condition EM.10;			

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(f) The proposed hours of work; (g) Details of any public access restrictions and what measures will be in place to minimise disruption to public access; (h) Location of construction site infrastructure including site offices, site amenities, contractors' yard access, equipment unloading and storage areas and contractor car parking; (i) The clear identification and marking of the construction areas within the CMA; (j) Where machinery is to be within the CMA, a list of that machinery and a protocol developed in consultation with an experienced ecologist for the management of that machinery to reasonably reduce ecological impacts and the footprint of the operations; (k) The measures to be adopted to maintain the construction area and adjacent parts of the CMA in a tidy condition in terms of disposal/storage of rubbish (so as to avoid attracting mammalian predators and undesirable species to the construction area), storage and unloading of construction materials and similar construction activities; (l) Procedures for managing and controlling erosion and sediment run-off into the CMA to achieve Condition C.6; (m) Procedures to reduce contaminants from Constructions Works on land or in the CMA into the CMA or groundwater. Such procedures and measures shall include, but are not limited to: (i) Refuelling and carrying out machinery maintenance, including being at least 5m inland from MHWS, away from watercourses and not on the foreshore area, the use of biodegradable hydraulic fluids in machinery working within the foreshore and CMA where practicable, a spill kit on hand and staff trained in its deployment; (ii) Ensuring that wash water from tools, equipment or machinery is not discharged into the CMA or the stormwater system; (iii) Keeping the area of disturbance in the foreshore and CMA to the minimum reasonably necessary to complete the works; (iv) Minimising the use of machinery within the CMA and ensuring that machinery is used in compliance with the CEMP; (v) Providing appropriate wash-down facilities for all concreting equipment to prevent wash water from entering the CMA and the stormwater system; (vi) Storing any hazardous substances so that they will not enter the CMA; (vii) Ensuring, except for (viii), that during piling or seawall construction and ancillary work no wet concrete or any water or liquid that has come into contact with wet concrete or with any other cementitious products without appropriate treatment as set out in (ix), is able to enter the CMA; (viii) Ensuring that piling or seawall construction and ancillary work within the CMA complies with Condition C.6; (ix) Ensuring that the pH of water discharged from any work site that has used wet cementitious products has a pH level similar to the local receiving environment; (x) Removing any temporary construction materials and debris associated with the Construction Works from the CMA; and (xi) In consultation with Wellington Water Limited, developing a site-specific methodology for dewatering and managing effects on the aquifer where the excavation and/or depth of any required seawall foundation exceeds 2.5 m Below Ground Level;

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(n) Procedures for ensuring that residents, network utility operators, road users and businesses in the immediate vicinity of construction areas are given prior notice of the Commencement of Construction, the location of the work, and are informed about the expected duration and effects of the work; (o) Means for maintaining public pedestrian access along Marine Drive during construction; (p) Procedures for incident management, including contingency procedures to address emergency spill response(s) and clean up; (q) Measures for protecting the site from tidal intrusion and storm events, and protocols to address any overtopping event that may occur during construction; (r) Appropriate management triggers that initiate on-site investigation of erosion and sediment controls and supporting monitoring and reporting measures; (s) Consideration of fish passage in the locations outlined in Condition EM.12; (t) The type of imported fill material to be used within the CMA to minimise contamination of the CMA as outlined in Condition C.9; (u) The existing gravel beach vegetation at Lowry Bay (native species, including the pingao) to be translocated into the beach nourishment area immediately seaward of the shared path footprint in accordance with direct transfer rehabilitation principles as practicable; (v) Measures to avoid, where practicable, the use of machinery and any other disturbance of existing native vegetation on gravel beaches in the construction zone where that vegetation is to remain; (w) Procedures for transplanting the six At Risk species in the landscape plantings at Point Howard and Windy Point to adjoining currently grassed areas or to adjoining reserves (such as Whiorau); (x) The <i>Atriplex cinerea</i> plantings at York Bay and Claphams Rock to be protected from the effects of vehicles; (y) Identification of opportunities to retain existing native vegetation patches between the shared path and revetment; (z) Procedures to monitor every 6 months for any post-construction establishment of invasive weeds (including boneseed and old man's beard) within areas affected by the works and for their removal as appropriate for a period of two years after works in any one bay are completed; and <u>(aa) Measures to reuse suitable beach material as outlined in Condition EM.14(g); and</u> <u>(bb) Procedures for monitoring as follows:</u> <u>(i) seagrass monitoring (Condition EM.11);</u> <u>(ii) intertidal and subtidal invertebrate monitoring (Condition EM.18); and</u> <u>(iii) cultural monitoring (Condition MW3(e)).</u> (cc) <u>Methods to manage potential dust and noise effects during construction.</u>
GC.8	The CEMP shall incorporate or refer to the following management plans: (a) Landscape and Urban Design Plan (including Bay Specific Urban Design Plans as appropriate) (refer to Conditions LV.1 to LV.7); (b) Beach Nourishment Plan (refer to Conditions EM.13 to EM.14); (c) Bird Protection Plan (refer to Conditions EM.3 to EM.3C); (d) Traffic Management Plan (refer to Conditions GC.11 to GC.13); and (e) Seawall and Revetment Habitat Plan (refer to Condition EM.19 below).

Commented [A4]: Responds to question 9.

Commented [A5]: Responds to Question 10 but no separate Monitoring Plan is proposed for the reasons set out in the covering email.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition																																		
	If a CEMP is submitted in part or for a Project stage, it shall only incorporate or refer to the management plans relevant to that part or stage.																																		
GC.9	All personnel working on the site shall be made aware of the requirements contained in the certified CEMP. The certified CEMP shall be implemented and maintained (and amended in accordance with GC.5(g) and (h) as necessary) throughout the entire period of the Construction Works.																																		
GC.10	The Consent Holder shall ensure that a copy of this consent and all certified plans and documents referred to in this consent are kept on site at all times and available for inspection on request by the Wellington Regional Council.																																		
Traffic Management Plan																																			
GC.11	The Consent Holder shall prepare a TMP to append to the CEMP and submit this to the Team Leader, Resource Consent for certification in accordance with the requirements of Condition GC.5.																																		
GC.12	The purpose of the TMP is to manage the various traffic management, safety and efficiency effects associated with the Construction Works.																																		
GC.13	The TMP shall include, but not be limited to, the following: (a) Management of traffic along Marine Drive adjoining the construction areas to protect public safety and manage delays to road users (especially during peak times), minimise disruption to property access, and methods to keep the public informed about potential impacts on Marine Drive; (b) Access and parking for contractors; and (c) Specification of any additional measures necessary during periods of activities which involve high levels of construction traffic on nearby properties, such as the CentrePort site at Point Howard (including communication and any necessary physical management steps); and- <u>(c)(d) Methods to monitor the performance of the TMP and traffic control measures. Outcomes of any such monitoring shall be included, as appropriate, in future revisions to the TMP to, over time, provide improved road management associated with Construction Works.</u>																																		
Construction Noise																																			
GC.14	Noise arising from Construction Works shall be measured and assessed in accordance with NZS 6803:1999 <i>Acoustics – Construction Noise</i> and shall comply with the noise criteria set out in the following table: Table CNV1: Construction noise criteria <table><tr><th>Day</th><th>Time</th><th>L_{Aeq}(15 min)</th><th>L_AF_{max}</th></tr><tr><td colspan="4">Residential buildings</td></tr><tr><td rowspan="4">Weekdays</td><td>0630h – 0730h</td><td>55 dB</td><td>75 dB</td></tr><tr><td>0730h – 1800h</td><td>70 dB</td><td>85dB</td></tr><tr><td>1800h – 2000h</td><td>65dB</td><td>80dB</td></tr><tr><td>2000h – 0630h</td><td>45dB</td><td>75dB</td></tr><tr><td rowspan="4">Saturdays</td><td>0630h – 0730h</td><td>45 dB</td><td>75 dB</td></tr><tr><td>0730h – 1800h</td><td>70 dB</td><td>85 dB</td></tr><tr><td>1800h – 2000h</td><td>45 dB</td><td>75 dB</td></tr><tr><td>2000h – 0630h</td><td>45 dB</td><td>75 dB</td></tr></table>	Day	Time	L _{Aeq} (15 min)	L _A F _{max}	Residential buildings				Weekdays	0630h – 0730h	55 dB	75 dB	0730h – 1800h	70 dB	85dB	1800h – 2000h	65dB	80dB	2000h – 0630h	45dB	75dB	Saturdays	0630h – 0730h	45 dB	75 dB	0730h – 1800h	70 dB	85 dB	1800h – 2000h	45 dB	75 dB	2000h – 0630h	45 dB	75 dB
Day	Time	L _{Aeq} (15 min)	L _A F _{max}																																
Residential buildings																																			
Weekdays	0630h – 0730h	55 dB	75 dB																																
	0730h – 1800h	70 dB	85dB																																
	1800h – 2000h	65dB	80dB																																
	2000h – 0630h	45dB	75dB																																
Saturdays	0630h – 0730h	45 dB	75 dB																																
	0730h – 1800h	70 dB	85 dB																																
	1800h – 2000h	45 dB	75 dB																																
	2000h – 0630h	45 dB	75 dB																																

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated 5 February 22 January 2021.

Ref	Condition			
	Sundays and Public Holidays	0630h – 0730h 0730h – 1800h 1800h – 2000h 2000h – 0630h	45 dB 55 dB 45 dB 45 dB	75 dB 85 dB 75 dB 75 dB
	Commercial and industrial receivers			
	All	0730h – 1800h 1800h – 0730h	70 dB 75 dB	
Infrastructure matters				
GC.15	The Consent Holder shall enter into an agreement with CentrePort prior to any Construction Works being undertaken within the road reserve and land owned by CentrePort (being Section 1 Survey Office Plan 31984, Reference WN37D/408; and Part Lot 1 DP 10694 & Section 70-72 Block XIV Belmont Survey District and Part Lot 1 DP 10694, Reference WN479/105) adjacent to the CentrePort wharf (Point Howard) to ensure that access arrangements are maintained in accordance with CentrePort's proposed upgrade works.			
GC.15A	The Consent Holder shall notify New Zealand Oil Services Limited (NZOSL) and Z Energy Limited 2 months prior to the Commencement of Construction at Point Howard and consult to ensure that the Project and wharf line upgrade construction projects at and in the vicinity of Point Howard are appropriately coordinated. The Consent Holder shall ensure the following are maintained at all times: (a) Vehicle and pedestrian access to the oil wharf; and (b) Access to the pipelines located on the northern side of Point Howard for inspections and maintenance and emergency response vehicles for the pipeline upgrade works as provided by Consents WGN020014 [35851], WGN190093 [35846], [35847], [35848], [35849], [35850], [35963], [35964], [35966] and RM180271.			
GC.15B	The Consent Holder shall consult with the relevant infrastructure and network utility providers regarding the scope and timing of necessary utility relocation and protection works to ensure their ongoing operation and that any safety hazards for the required works are minimised as far as practicable.			
Completion of Construction				
GC.16	After the Completion of Construction in each bay, the Consent Holder shall notify the Manager, Environmental Regulation in writing within 2 working days (48 hours) that the works have been completed.			
GC.17	The Consent Holder shall ensure that on Completion of Construction the site is left in a tidy manner, including all litter associated with the works being removed.			
GC.18	The Consent Holder shall, as far as reasonably practicable, remedy all damage and disturbance caused by vehicle traffic, plant and equipment to the foreshore during Construction Works in consultation with a suitably qualified ecologist.			
Incidents - General				
GC.19	The Consent Holder shall maintain a permanent record of any incidents such as, but not limited to, the spill of hydraulic fluid or other discharge not authorised by this consent or any exceedances of the management trigger developed under Condition GC.7(r) that occur at individual work stages that result, or could result, in an adverse effect on the environment.			
GC.20	The record shall include: (a) The type and nature of the incident;			

Commented [A6]: No change proposed for reasons set out in covering email.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(b) Date and time of the incident; (c) Weather conditions at the time of the incident (as far as practicable); (d) Assessment of the effects of the incident; (e) Measures taken to remedy the effects of the incident; and (f) Measures put in place to prevent the incident from reoccurring.
GC.21	The record in Condition GC.20 shall be maintained at the work site and shall be made available to the Manager, Environmental Regulation upon request.
GC.22	The Consent Holder shall notify the Manager, Environmental Regulation within 1 working day of any incident under Condition GC.19.
GC.23	The Consent Holder shall forward an incident report to the Manager, Environmental Regulation within 7 working days of an incident occurring under Condition GC.19. This report shall include the matters listed in Condition GC.20. <i>Advice Note: Wellington Regional Council may investigate any incidents to determine if a breach of this consent or the RMA has occurred and may also undertake enforcement action depending on the circumstances.</i>
Complaints Management	
GC.24	The Consent Holder shall maintain a complaint register that includes: (a) The details of each complaint; (b) Actions taken to investigate the complaint (if any); (c) The outcome of such investigations if undertaken and the likely cause of the matter that led to the complaint; (d) The nature and timing of any measures implemented by the Consent Holder to respond to the complaint; and (e) Actions (if any) to be taken in the future to prevent occurrences of similar events and complaints. <i>Advice note: Should there be a series of complaints related to a single incident then only one investigation needs to be completed by the Consent Holder.</i>
GC.25	The Consent Holder shall make the complaint register in Condition GC.24 available to the Manager, Environmental Regulation on request.
Consent Lapse	
GC.26	Pursuant to section 125(1) of the RMA, the consents shall lapse 10 years from the date of their commencement in accordance with section 116 of the RMA.
Review of conditions	
GC.27	Pursuant to section 128 of the RMA, the conditions of consent may be reviewed by Hutt City Council or Wellington Regional Council by the giving of notice pursuant to section 129 of the RMA one year from the Commencement of Consent and every year thereafter in order to deal with: (a) any adverse effect on the environment which may arise from the exercise of the consent that is appropriate to deal with at a later stage; or (b) any other adverse effect on the environment on which the exercise of the consent may have an influence.
Transport	
GC.28	An independent road safety audit shall be undertaken at the detailed design stage and at the pre-opening/post-construction stage.



Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated [5 February](#)22 January 2021.

RELEASED UNDER THE LOCAL GOVERNMENT OFFICIAL INFORMATION AND MEETINGS ACT 1987

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Coastal Activities (C)

Ref	Condition
<i>Engineering Plans and Specifications</i>	
C.1	At least 30 working days prior to the Commencement of Construction <u>of the Project (or, if the Project's construction is staged, then at least 30 working days prior to Commencement of Construction on the relevant stage)</u>, the Consent Holder shall submit detailed engineering plans and specifications (including tidal levels, dimensioned cross sections, elevations, site plans of the footprint within the CMA including any de-reclamation, permanent and temporary structures, outfalls structures, associated permanent and temporary coastal zone occupations, and areas where the construction area will extend into the subtidal zone) prepared by a suitably qualified and experienced engineer in general accordance with the documents listed in Condition GC.1 to the Manager, Environmental Regulation for certification using the process in Condition GC.5. The requirements for certification set out in Condition GC.5 apply equally to the certification of the detailed engineering plans and specifications under this condition.
C.2	The engineering plans and specifications submitted under Condition C.1 shall cover the following matters: (a) Shared path; (b) Seawalls, including drainage and texture to be applied to the curved surface and depressions to be applied to the flat platforms of the curved seawall; (c) Revetment design, including: (i) The process to determine the rock used in the rock revetment having regard to minimising potential effects on natural character and the selection of rock for the revetment structures. Decisions shall be made in consultation with a suitably qualified and experienced landscape architect where more than one suitable rock source is identified; (ii) The reuse of in situ natural rock/cobble material and minimising the excavation of in situ rock (where possible) without compromising structural integrity, including the drilling of rock pools into the hard revetment rock of intertidal areas; and (iii) The design of the revetments should look at all options to reduce the revetment footprint without compromising the structural integrity of the seawall, overtopping protection, or coastal processes; (d) Access steps, ramps, bus stops; and (e) Beach nourishment.
C.3	The Consent Holder shall comply with the engineering plans and specifications certified under Condition C.1.
<i>Occupation of the CMA</i>	
C.4	The right to temporarily occupy part of the CMA during Construction Works is limited to the areas and structures identified in the plans and specifications referred to in Condition GC.1.
C.5	The right to permanently occupy part of the CMA is limited to the areas and structures identified in the plans and specifications referred to in Condition GC.1.
<i>Erosion and sediment control</i>	
C.6	Erosion and sediment control measures shall be implemented throughout the Construction Works. They shall be constructed and maintained to operate and perform in accordance with the <i>Erosion and Sediment Control Guidelines for the Wellington Region</i> (Reprinted June 2006) in the CMA, the measures set out below, and the certified CEMP. Measures within the CMA may include, but not be limited to, the following considerations:

Commented [A7]: Responds to Question 11.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~22 January 2021.

Ref	Condition
	(a) Not exposing non-native backfill material to the sea. (b) Use of weight-bearing mats on the foreshore substrate. (c) Methods for isolating and containing the construction area including: (i) Bunding/shuttering in a predominantly gravel/sand beach zone; and (ii) Alternative sediment control devices such as geotextile containers or tubes filled with locally sourced sand in rocky shore habitats, or where the seawall works occur close to the mid tide mark. (d) Limiting the length of any continuous section of seawall under construction at one time as appropriate. For example, if the construction footprint extends into subtidal zone and a longer length allows for a single subtidal area to be contained in the one site then a longer length would be preferable. (e) Earthworks and construction activities to be planned to respond to tide timing, tidal height and forecasts of wind and wave conditions so that these matters can be factored into necessary erosion and sediment controls.
Contaminant Release	
C.7	The Consent Holder shall take all reasonably practicable measures to limit the amount of contaminants from the Construction Works released on land or in the CMA, and shall ensure that the sediment concentrations of any discharge of sediment laden water to the stormwater system or the CMA do not exceed 100g/m³. Such measures shall be included in the CEMP. <i>Advice note: Any discharge that can be attributed to the Project in accordance with section 107 of the RMA should not, after reasonable mixing, give rise to any of the following effects in the CMA:</i> (a) The production of any conspicuous oil or grease films, scums or foams, or floatable or suspended materials (excluding suspended sediment); (b) Any conspicuous change in colour or visual clarity; or (c) Any significant adverse effects on aquatic or marine life.
CMA footprint	
C.8	The total CMA footprint for the Project is limited to the areas and structures identified in the plans and specifications referred to in Condition GC.1, but shall not exceed 3000m² <u>within below</u> the MHWS. <i>Advice note: Statutory processes in respect of reclaimed land must be complied with, including under the Marine and Coastal Area (Takutai Moana) Act 2011.</i>
C.9	Imported fill material to be used in the seawalls and revetments shall be restricted to clean natural sand, gravels and rock.
C.10	The Consent Holder shall maintain a log recording the source of the materials imported onto each seawall and revetment on the site. This log shall be made available to the Manager, Environmental Regulation for inspection on request.

Commented [A8]: Responds to Question 12.



Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
<i>As-Built Certification</i>	
C.11	The Consent Holder shall supply to Wellington Regional Council and the LINZ Hydrographic Services Office and LINZ Topographic Services Office (Chief Hydrographer, National Topo/Hydro Authority, Land Information New Zealand, Private Box PO Box 5501, Wellington 6145) a set of 'as built' plans, final topographic and, bathymetric data covering the finished works (if relevant), and appropriate certification confirming that the new structures and structures have been built in accordance with sound engineering practice within 60 working days of the Completion of Construction.
<i>Maintenance of Structures</i>	
C.12	The Consent Holder shall remain responsible for all works authorised under this consent and shall maintain all seawalls and structure(s) that are required to occupy areas of the CMA to the satisfaction of the Manager, Environmental Regulation so that: (a) any material erosion, scour or instability of the CMA that is attributable to the structures and works carried out as part of this consent is remedied by the Consent Holder; (b) the structural integrity of any structure remains sound in the opinion of a Professional Chartered Engineer; and (c) access to the coastal marine area is not further impeded by the structures. Any maintenance or repair shall be undertaken to the satisfaction of the Manager, Environmental Regulation. <i>Advice note: Maintenance does not include any works outside of the scope of the application. Any additional works (including structures, reshaping or disturbance to the seabed or foreshore) following completion of the Construction Works as proposed in the application may require further resource consents.</i>

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ecological Management (EM)

Ref	Condition
<i>Bird Protection measures</i>	
EM.1	In order to avoid or minimise adverse effects of the Project on Little Penguins and Shoreline Foragers, the Consent Holder shall: (a) Seek dog control measures in accordance with Condition EM.2; (b) Prepare a Bird Protection Plan (BPP) in accordance with Conditions EM.3 to EM.3C; (c) Undertake Construction Works in accordance with Conditions EM.4 to EM.4D; (d) Deliver pest management in accordance with Condition EM.5; (e) Deliver the protection areas in accordance with Conditions EM.6 to EM.6E; (f) Deliver rubbish and waste management in accordance with Condition EM.7; (g) Complete reviews of the protection areas (Conditions EM.8 to EM.8C); (h) Complete a study of variable oystercatchers (Condition EM.8D); and (i) Complete a public education awareness programme for avifauna in accordance with Condition EM.9. In relation to: (j) pest management, the Consent Holder shall provide up to a maximum of \$60,000 to be used to implement the measures set out in the Pest Management Strategy; (k) the protection areas in Conditions EM.6B to EM.6E, the Consent Holder shall: (i) provide up to a maximum of \$300,000 to be used to establish the protection areas (including, if required, the potential additional area in Condition EM.2(d)) in accordance with the BPP; and (ii) provide up to a maximum of \$6,000 per year for the duration of the consents for the ongoing management of the protection areas; (l) the variable oystercatcher study in Condition EM.8D, the Consent Holder shall provide up to a maximum of \$30,000; and (m) the public education programme in Condition EM.9, the Consent Holder shall provide up to a maximum of \$15,000. All the sums above include GST. The Consent Holder shall report to the Manager, Environmental Regulation and the Manager, Regulatory Services, Hutt City Council when the monies specified above have been allocated. Any monies not fully spent to the maximum sums above shall be allocated to ongoing management (including pest control) within the protection areas and/or the public educational campaign in Condition EM.9. <i>Advice note: The handling of protected wildlife will require permits to be obtained from the Department of Conservation under the Wildlife Act 1953.</i>
<i>Dog control measures</i>	
EM.2	The Consent Holder shall within 12 months of the Commencement of Consent initiate the required statutory process to exclude dogs from: (a) the foreshore and beach area of Rona Bay abutting Bishops Park protection area and running for the same length, as shown indicatively in Appendix 1; and (b) the foreshore and beach area of Sorrento Bay from the southern end of the Sorrento Bay oystercatcher protection area and running to the northern end of the oystercatcher managed works zone, as shown indicatively in Appendix 1.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	Should the dog exclusions over the foreshore and beach areas outlined above not be successfully delivered the Consent Holder shall: (c) review the fencing options for the Bishops Park and the Sorrento Bay protection areas; (d) develop and implement, in consultation with the Manager, Environmental Regulation and the Eastbourne Dunes Restoration Group, a revegetation plan (with the purpose to support the replacement, as appropriate, of marram grass within this area with natives or other suitable coastal species enhancement of the area for shorebirds through appropriate replacement of exotic plants (in particular marram grass) and planting for screening), and install signage in accordance with Condition LV.7(k) and (l) and pest management in accordance with Condition EM.5 at the potential additional revegetation area which covers the areas of existing vegetation between the Rona Bay pier and the HW Shortt Park protection area, as shown indicatively in Map 3 of Appendix 1; and (e) investigate alternative dog control measures that may be available and the details of any enforcement or compliance measures that may be implemented, and report back to the Manager, Environmental Regulation and the Manager, Regulatory Services, Hutt City Council.
<i>Bird Protection Plan – preparation and certification</i>	
EM.3	The Consent Holder shall prepare a BPP and submit this to the Manager, Environmental Regulation for certification in accordance with the requirements of Condition GC.5.
EM.3A	The purpose of the BPP shall be to as far as reasonably practicable avoid, but otherwise minimise, adverse effects on Little Penguins and Shoreline Foragers in the Project area and adjacent areas (including existing revetment, the coastal edge running along the length of the Project area and the bird protection areas set out in Conditions EM.6 to EM.6E). The objectives of the BPP shall be to: (a) Maintain or enhance the level of habitat and species diversity post-construction of the Project comparative to that existing pre-construction. (b) Maintain or enhance habitat for Little Penguins and Shoreline Foragers along the Eastern Bays coast comparative to pre-construction of the Project.
EM.3B	The BPP shall be prepared by a suitably qualified and experienced ecologist in consultation with the Little Penguin Interest Group, Eastbourne Dunes Restoration Group, and the Mana Whenua Steering Group.
EM.3C	The BPP shall include: (a) nesting and construction measures (Conditions EM.4 to EM.4C); (b) staff and contractor training requirements (as necessary and reasonable); (c) suggested signage locations and content to be incorporated as appropriate within the BSUDPs under Condition LV.7; (d) opportunities to avoid or further minimise effects on Little Penguins and enhance Little Penguin habitat through detailed design (through linkage to the CEMP in Condition GC.8), including: (i) potential seawall design opportunities to restrict road access for Little Penguins; and (ii) potential rock rip rap design opportunities to include key holes for Little Penguin nests; (i) a Pest Management Strategy (Condition EM.5); (j) a plan for works within 100m of a Shoreline Forager nest (Condition EM.4D);

Commented [A9]: Responds to Question 20.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(k) the final boundary, fence design and details of the four bird protection areas to be established (Conditions EM.6 to EM.6E and Appendix 1); (l) rubbish and waste management (Condition EM.7); (m) a framework for a public education programme for avifauna (Condition EM.9); (n) identification of important habitat for Shoreline Foragers including opportunities for screening or barriers at these areas as provided through Condition LV.7; (o) a description of measures to ensure the protection areas are appropriately managed and maintained to maximise opportunities for habitation by Little Penguins and Shoreline Foragers for the duration of the consents; and (p) a summary of consultation in Condition EM.3B including a response to matters raised during consultation that have not been adopted and the reasons why.
<i>Bird Protection Plan – Nesting and construction measures</i>	
EM.4	Construction Works between 1 July and 31 January (the Little Penguin breeding period) shall not occur within 10m of any active nesting or moulting sites identified in Condition EM.4A.
EM.4A	The BPP shall contain measures to avoid or minimise adverse effects on Little Penguins during construction, including: (a) A staged process developed by a suitably qualified and experienced independent Little Penguin expert for Construction Works in each bay to locate and protect active Little Penguin nesting and moulting sites within the construction area prior to the Commencement of Construction. (b) The staged process in (a) shall be detailed in the BPP but, unless (c) or (d) applies, shall include: (i) Identification of areas within the bay and within the construction area that provide suitable Little Penguin nesting habitat; (ii) Undertaking, within 5 working days of the Commencement of Construction in each bay, a Little Penguin dog detection survey of any identified area in (i) to identify active nesting and moulting sites; (iii) Either complete Construction Works within the surveyed area in (ii) within 10 working days or ensure the surveyed area is secured from penguin access as soon as reasonably practicable and no later than 2 working days from the completion of the survey (unless an active nesting or moulting site is located, in which case access to that site shall be enabled and Condition EM.4 applies) until Construction Works within the area are completed; (iv) Twice weekly inspection of any Little Penguin exclusion measures in (iii) and if any are found to be damaged, they shall be reinstated within 24 hours of the inspection unless it is unreasonable given weather conditions in which case they must be reinstated as soon as reasonably practicable; and (v) If repairs under (iv) are not completed within 24 hours, then the Consent Holder shall consult the Little Penguin expert on the need for a new Little Penguin detection survey prior to the Commencement of Construction. If the Little Penguin expert determines that repairs are required, a Little Penguin detection survey shall be undertaken in accordance with (ii) (as relevant). (c) Where the Little Penguin expert considers that the process in (b) would not result in the best outcome for Little Penguins in a particular area or bay an alternative process may be provided which shall include an explanation as to why the process in (b) is not recommended to be followed. (d) A detailed description of any alternative process (or processes) available should a Little Penguin detection dog not be reasonably available to undertake a survey in accordance with (b)(ii).

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(e) A detailed description outlining how any Little Penguins encountered during survey or Construction Works will be managed (if required) in accordance with best practice. (f) A description of measures to ensure that formerly active nesting and moulting sites cannot be reoccupied during construction. (g) The GPS coordinates for all active nesting or moulting sites identified by the survey in (b)(ii) must be recorded and a picture taken and annotated with the location of the nest and the co-ordinates. This information must be provided to the Manager, Environmental Regulation within 5 working days.
EM.4AA	An exclusion zone with a minimum 10m radius must be established around any active nesting or moulting sites identified in Condition EM.4A while ensuring access to the ocean is maintained.
EM.4B	The BPP shall contain a programme for monitoring Little Penguins within or adjacent to the construction area during the Construction Works proportionate to the scale of the works in that area and the number of active nesting or moulting sites to determine whether any reasonably practicable steps can be undertaken by the Consent Holder during Construction Works to further reduce adverse effects.
EM.4C	Any outcomes from monitoring under Condition EM.4B shall be applied, as appropriate, to future Construction Works by revising the BPP so that over time processes and responses to minimise effects on Little Penguins are refined and improved. The results of the monitoring shall be provided to the Little Penguin Interest Group and the Manager, Environmental Regulation within 1 month of completion.
EM.4D	(a) During the nesting season of any Shoreline Forager and no more than 10 working days prior to the Commencement of Construction, the Consent Holder shall engage a suitably qualified and experienced ecologist to undertake a Shoreline Forager nesting survey within the relevant construction area. (b) If any active Shoreline Forager nest in the relevant construction area is identified under (a), the Consent Holder shall engage a suitably qualified ecologist to: - GIS locate and implement an exclusion zone around the nest location using rope or similar material; - advise whether or not the nest of the Shoreline Forager contains eggs or chicks; - if it does contain eggs or chicks, advise on the management of Construction Works within 100m of the nest, including: - the use of specific machinery; and - the use of specific minimisation measures and/or working practices; and - prepare a plan for works incorporating the matters in (iii) which the Consent Holder shall include in the CEMP under Condition GC.7. (c) If the oystercatcher nest located off the point between Sorrento Bay and Lowry Bay is confirmed by a suitably qualified ecologist to be occupied by a breeding pair or the presence of eggs or chicks, then during November no Construction Works shall occur within 100m of the nest while it is so occupied. If the nest is so occupied at other times of the year, Construction Works within 100m shall occur under the advice of a suitably qualified and experienced ecologist as to the use of specific machinery and specific minimisation measures and/or working practices. (d) If the oystercatcher nest located off the point between Sorrento Bay and Lowry Bay in (c) has resulted in chicks being hatched, then no Construction Works within the oystercatcher managed works zone (refer to Appendix 1) shall occur within the months of December and January unless a suitably qualified ecologist has determined that the chicks have not survived or can fly. If non-flying oystercatcher chicks are present within the oystercatcher managed works zone (refer to Appendix 1) during February then Construction Works within the oystercatcher managed works zone (refer to Appendix 1) shall occur only if a suitably qualified and experienced

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~22 January 2021.

Ref	Condition
	ecologist determines that work with specific machinery and specific minimisation measures and/or working practices can proceed without endangering the chicks.
<i>Bird Protection Plan – Pest Management Strategy</i>	
EM.5	The Consent Holder shall prepare a Pest Management Strategy, to form part of the BPP, aimed at providing pest management in: (a) primarily, the four bird protection areas specified in Conditions EM.6 to EM.6E (and, if utilised, the potential revegetation area (Condition EM.2(d)) south of Bishops Park as shown in Appendix 1); and (b) secondly, the adjacent Eastern Bays coastal environment affected by the Construction Works. The purpose of the Pest Management Strategy is to identify appropriate locations and types of pest management measures and opportunities to utilise the \$60,000 allocated in Condition EM.1, including working with existing pest management programmes in the adjacent Eastern Bay communities. The Pest Management Strategy shall as a minimum: (c) Identify times of year and locations where litter and pests may be an issue and link with Conditions EM.7 and LV.7, and (d) below; (d) Cover the full length of the Shared Path, with more intensive actions for the protection areas and any identified areas in (c); (e) Identify times of year to focus pest management (e.g. when chicks are hatching); (f) Include strategies describing how the applicant will engage and educate the community on the presence of birds and the impact of pests on these birds through signage and community outreach programs in Condition EM.9; and (g) Establish mechanisms to report annually during the period of pest management to the community and the Manager, Environmental Regulation on the success of the Pest Management Strategy. Any outcomes from reporting on the success of the Pest Management Strategy under (g) above shall be applied, as appropriate, to future pest management by revising the Pest Management Strategy so that over time processes and responses to minimise effects on coastal avifauna as a result of pest animals are refined and improved.
<i>Bird Protection Plan – bird protection areas</i>	
EM.6	The Consent Holder shall establish, utilising the up to \$300,000 allocated in Condition EM.1, protection areas in general accordance with Appendix 1 at the following indicative locations: (a) an oystercatcher protection area at Sorrento Bay (Condition EM.6B); (b) a penguin protection area at Whiorau Reserve (Condition EM.6C); and (c) penguin and shorebird protection areas at: (i) Bishops Park (Condition EM.6D); and (ii) HW Shortt Park (Condition EM.6E).
EM.6A	The bird protection areas set out in Conditions EM.6C, EM.6D and EM.6E shall include: (a) opportunities to enhance Little Penguin habitat within the protection areas, including providing and maintaining a minimum of 100 nesting opportunities across the three protection areas; and (b) opportunities for Shoreline Forager nesting where suitable.
EM.6B	The Sorrento Bay oystercatcher protection area shall include the following: (a) fencing of the boundaries in general accordance with Appendix 1 and as specified in the BPP with a minimum standard to keep dogs out on the landward (road) side;

Commented [A10]: Responds to Question 20.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(b) screening, as appropriate, including through planting measures; (c) pest management measures in accordance with the Pest Management Strategy provided under Condition EM.5; (d) A Planting Plan to outline areas of planting surrounding nesting opportunities, or the maintenance of vegetation-free areas as appropriate. The Planting Plan shall include as a minimum: (i) The species that are proposed to be planted, the size of the plants and the density of planting; (ii) A timeline for the completion of the proposed planting; and (iii) Details of the maintenance and management of the planting and management of pest plants; (e) signage identifying the protection area and its values; and (f) provisions as appropriate to respond to, and provide ecological resilience to, sea level rise. The following timeframes shall apply to the Sorrento Bay oystercatcher protection area: (g) fencing and screening (as appropriate) must be completed within 3 months following the Commencement of Construction (see (a) and (b) above); (h) pest management measures must be installed and be operational within 3 months following the Commencement of Construction (see (c) above); (i) planting shall commence and be undertaken and completed in accordance with the timeframes specified in the Planting Plan (see (d) above); and (j) signage must be installed within 3 months following the Commencement of Construction (see (e) above).
EM.6C	The Whiorau Reserve penguin protection area shall include the following: (a) fencing of the boundaries in general accordance with Appendix 1 and as specified in the BPP with a minimum standard to control dogs from accessing the protection area from the landward (road) side and a suspended rope barrier (or similar) allowing Little Penguins to safely pass underneath on the seaward side; (b) pest management measures, in accordance with the Pest Management Strategy provided under Condition EM.5; (c) A Planting Plan to outline areas of planting surrounding nesting opportunities or the maintenance of vegetation-free areas as appropriate. The Planting Plan shall include as a minimum: (i) The species that are proposed to be planted, the size of the plants and the density of planting; (ii) A timeline for the completion of the proposed planting; and (iii) Details of the maintenance and management of the planting and management of pest plants; (d) signage identifying the protection area and its values; (e) opportunities to enhance Little Penguin habitat within the protection area in accordance with Condition EM.6A; and (f) provisions as appropriate to respond to, and provide ecological resilience to, sea level rise. The following timeframes shall apply to the Whiorau Reserve penguin protection area: (g) fencing must be completed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (a) above);

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(h) pest management measures must be installed and be operational as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (b) above); (i) planting shall be undertaken and completed in accordance with the timeframes specified in the Planting Plan (see (c) above); (j) signage must be installed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (d) above); and (k) detailed design of habitat enhancement for the Little Penguins must be finalised, and nesting boxes must be installed, within 9 months following the Commencement of Construction (see (e) above).
EM.6D	The Bishops Park penguin and shorebird protection area shall include the following: (a) fencing of the boundaries in general accordance with Appendix 1 and as specified in the BPP with a minimum standard to control dogs from accessing the protection area from the landward (road) side (unless through a gated public access strip) and a suspended rope barrier (or similar) allowing penguins to safely pass underneath on the seaward side; (b) pest management measures, in accordance with the Pest Management Strategy provided under Condition EM.5; (c) A Planting Plan to outline areas of planting surrounding nesting opportunities or the maintenance of vegetation-free areas as appropriate. The Planting Plan shall include as a minimum: (i) The species that are proposed to be planted, the size of the plants and the density of planting; (ii) A timeline for the completion of the proposed planting; and (iii) Details of the maintenance and management of the planting and management of pest plants; (d) signage identifying the protection area and its values; (e) retention of area(s) of marram grass located within the protection area; (f) pedestrian accessways through the protection area at selected points; (g) consideration of the presence of herpetofauna and maintaining areas of skink habitat within the protection area; (h) opportunities to enhance Little Penguin habitat within the protection area in accordance with Condition EM.6A; (i) opportunities to enhance Shoreline Forager habitat, including wooden poles providing further safe roosting habitats; and (j) provisions as appropriate to respond to, and provide ecological resilience to, sea level rise. In relation to the above matters, all plans for, and works undertaken within, the Bishops Park protection area shall ensure that erosion and wind-blown sand effects are avoided or minimised. The following timeframes shall apply to the Bishops Park penguin and shorebird protection area: (k) fencing (including rope demarcation) must be completed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (a) above); (l) pest management measures must be installed and be operational as soon as reasonably practicable but no later than 18 months following Commencement of Construction (see (b) above); (m) planting shall be undertaken and completed in accordance with the timeframes specified in the Planting Plan (see (c) above);

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(n) signage must be installed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (d) above); and (o) detailed design of habitat enhancement for the Little Penguin and Shoreline Foragers must be finalised and roosting measures must be installed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (h) and (i) above).
EM.6E	The HW Shortt Park penguin and shorebird protection area shall include the following: (a) fencing of the boundaries in general accordance with Appendix 1 and as specified in the BPP with a minimum standard to control dogs from accessing the protection area from the landward side and a suspended rope barrier (or similar) allowing penguins to safely pass underneath on the seaward side; (b) pest management measures in accordance with the Pest Management Strategy provided under Condition EM.5; (c) A Planting Plan to outline areas of planting surrounding nesting opportunities or the maintenance of vegetation-free areas as appropriate. The Planting Plan shall include as a minimum: (i) The species that are proposed to be planted, the size of the plants and the density of planting; (ii) A timeline for the completion of the proposed planting; and (iii) Details of the maintenance and management of the planting and management of pest plants; (d) signage identifying the protection area and its values; (e) opportunities to enhance Little Penguin habitat within the protection area in accordance with Condition EM.6A; (f) opportunities to enhance Shoreline Forager habitat, including wooden poles providing further safe roosting habitats; and (g) provisions as appropriate to respond to, and provide ecological resilience to, sea level rise. In relation to the above matters all plans for, and works undertaken within, the HW Shortt Park protection area shall ensure that erosion and wind-blown sand effects are avoided or minimised. The following timeframes shall apply to the HW Shortt Park penguin and shorebird protection area: (h) fencing must be completed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (a) above); (i) pest management measures must be installed and be operational as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (b) above); (j) planting shall be undertaken and completed in accordance with the timeframes specified in the Planting Plan (see (c) above); (k) signage must be installed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (d) above); and (l) detailed design of habitat enhancement for the Little Penguin and Shoreline Foragers must be finalised and roosting measures must be installed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (e) and (f) above).
<i>Rubbish and waste management</i>	
EM.7	The Consent Holder shall undertake a six-monthly rubbish clean up along the shared path and its adjacent beaches which will involve two staff and a vehicle proceeding along the Project area collecting litter for 1 working day for the duration of this consent.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
<i>Protection area review and reporting</i>	
EM.8	The Consent Holder shall engage a suitably qualified and experienced ecologist to undertake reviews of the establishment of each protection area in Conditions EM.6B to EM.6E within the timeframe set out in Condition EM.8A. The purpose of the reviews is to identify if there are reasonably practicable measures the Consent Holder could implement to optimise the intended habitat in each protection area for Little Penguins and/or Shoreline Foragers (as relevant for the specific area) and if such measures are identified a timeframe for them to be implemented. Reasonably practicable in this condition relates to measures such as operational matters (including pest management timing/location within Condition EM.1(i)), design matters (such as improved signage or litter bin locations) and/or maintenance issues (such as replacement of damaged items or plantings) that can be implemented without additional consents). Reasonably practicable does not include the redesign and/or redevelopment of a protection area or the addition of new protection areas.
EM.8A	The reviews in Condition EM.8 shall be undertaken, and a report provided to the Manager, Environmental Regulation within 3 months of: (a) 2 years from Commencement of Construction for the Sorrento Bay oystercatcher protection area (Condition EM.6B); (b) 2 years from the establishment of the Bishops Park and HW Shortt protection areas with regard to Shoreline Forager habitat (Conditions EM.6D and EM.6E); and (c) 5 years from the establishment of the Whiorau Reserve, Bishops Park and HW Shortt Park protection areas with regard to Little Penguins (Conditions EM.6C to EM.6E).
EM.8B	Any reasonably practicable measures identified in the report under Condition EM.8 shall be implemented by the Consent Holder. The Consent Holder shall inform the Manager, Environmental Regulation when the measures have been completed.
EM.8C	The review for the Sorrento Bay oystercatcher protection area (Condition EM.6B) shall include any relevant information obtained up until that date from the variable oystercatcher study under Condition EM.8D.
<i>Variable oystercatcher study</i>	
EM.8D	The Consent Holder shall commission, utilising the up to \$30,000 allocated in Condition EM.1, a suitably qualified ecologist to lead a before and after study of variable oystercatchers in the Project area (the Eastern Bays from Point Howard to Sunshine Bay and including Windy Point) including the influence of the Project on variable oystercatchers and their behaviours. The study shall include recommendations (if any) in accordance with Condition EM.8C. The study shall be completed, and the results provided to the Manager, Environmental Regulation and made publicly available within 5 years of the Completion of Construction of the Project.
<i>Bird Protection Plan - education</i>	
EM.9	The Consent Holder shall carry out, utilising the up to \$15,000 allocated in Condition EM.1, a public educational campaign aimed at recognising, protecting, and raising public awareness of avifauna in the Project area, including variable oystercatchers. The campaign shall: (a) commence within 9 months of the Commencement of Consents; (b) continue for a minimum of 5 years; and (c) provide current information on variable oystercatchers within the Project area and how to minimise or prevent risks and threats to oystercatchers in the Project area.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
<i>Intertidal and subtidal ecology</i>	
EM.10	For any construction areas where there are intertidal rock pools or loose rocky material in the intertidal zone, prior to the Commencement of Construction the Consent Holder shall check any rock pools and under loose rocks within the construction area for fish (such as rock fish) and relocate them outside of the construction area. Training and guidance by a suitably qualified and experienced person will be required in accordance with Condition GC.7(e). <i>Advice note: It is the responsibility of the Consent Holder to ensure that the suitably qualified and experienced person holds all relevant permits required to undertake fish rescue.</i>
EM.11	For any construction areas that may extend into the subtidal zone, the Consent Holder shall: (a) Undertake all measures possible to reduce the construction area in the subtidal zone to the minimum required to complete the works in a safe and efficient manner and avoid operating heavy machinery in the subtidal zone unless there is no reasonably practicable alternative. If works must occur in the subtidal zone then the Consent Holder shall undertake appropriate measures to isolate the construction site from the subtidal zone to protect the site and prevent contamination release into the CMA in accordance with the requirements of the certified CEMP. (b) During Construction Works within the subtidal zone the Consent Holder shall, where reasonably practicable, remove large rocks (greater than 0.4m diameter that are not part of the bedrock material and can be safely moved) that have been colonised with biota. They shall be placed in a nearby subtidal zone until the completion of works in that area. On completion of works, the rocks shall either be returned to the area from which they were removed, left at their new location or relocated to another appropriate subtidal location. (c) Avoid adverse effects on the seagrass beds at south Lowry Bay (as identified in Figure 3 of Appendix C2 of the AEE) from Construction Works and beach nourishment. Measures shall include, but not be limited to: (i) Monitoring of seagrass beds in south Lowry Bay before and after Construction Works and beach nourishment to confirm that the beach nourishment works have not resulted in any net loss of seagrass extent and cover through unforeseen physical encroachment into the seagrass beds, increased turbidity or altered hydrodynamics; (ii) The monitoring in (i) shall include mapping the perimeter of each seagrass bed and assessing the average plant cover within each bed immediately before works commence, immediately after works have been completed, and 1 year after the completion of the beach nourishment works; (iii) <u>A visual assessment near and around the seagrass beds in south Lowry Bay:</u> C. <u>at least once during beach nourishment placement works, immediately after placement works have been completed, within 5 weeks after placement works have been completed and within 15 weeks after placement works have been completed; and</u> D. <u>once a week during Construction Works that may extend into the subtidal zone in south Lowry Bay and within 5 weeks of such Construction Works being completed.</u> <u>to ensure that neither beach nourishment nor Construction Works smother any part of the seagrass beds; and</u> (iv) <u>The results of the monitoring in (i) and visual inspections in (iii), shall be provided to the Manager, Environmental Regulation, Wellington Regional Council within 1 month of completion;</u>

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(iii) A visual assessment near and around the seagrass beds following beach nourishment to ensure that the nourishment material is not smothering any part of the seagrass beds; and (iv)(v) Ensuring that the seagrass beds are appropriately marked during Construction Works and beach nourishment to avoid any potential adverse effects. No Construction Works shall occur within 2m of the seagrass beds. (d) The monitoring in (c)(ii) and (iii) above shall be undertaken by a suitably qualified and experienced person. (e) If monitoring in (c)(ii) and (iii) shows smothering and/or direct disturbance of seagrass attributed to the Project is occurring, the person in (d) shall work with the Consent Holder shall engage a suitably qualified and experienced person to identify (including undertaking) an assessment of the actual and potential impacts if necessary) and provide a description of available recommend to the Consent Holder reasonable remedial actions (if necessary), including stopping or delaying works, and a programme for their implementation. The Consent Holder shall comply with those recommendations within the timetable provided. The Consent Holder shall provide a copy of the recommendations within 48 hours of receipt (as appropriate) to the Manager, Environmental Regulation and inform the Manager, Environmental Regulation when the recommendations have been completed for certification within an agreed timeframe and undertake any remediation actions as soon as practicable.
Fish Passage	
EM.12	At the key culvert outlets listed in Table 7 of Appendix B of the AEE, the Consent Holder shall: (a) Ensure culvert extensions associated with the Project are designed in consultation with a qualified freshwater ecologist to improve or at least maintain existing fish passage. These details will be included in the engineering plans specified in Condition C1. (b) Gain pre-construction information on the existing culvert outlets via inspection by a qualified freshwater ecologist on at least four occasions during low tide and taking detailed photos and measurements (including distance of invert above or below current beach level, height of any perch, height of headroom, depth of any flowing surface water). Outlets will also be visited once at high tide to determine the level of outlet inundation. (c) Monitoring post-construction outlet characteristics every six months for three years from Completion of Construction of the Project by repeating the procedure outlined in (b) above at low tide. Outlets will also be visited three times (yearly) at high tide to determine the level of outlet inundation (but this recording can be arranged by the Consent Holder). Monitoring of all culverts will be combined. (d) Engage the qualified freshwater ecologist in (b) to provide a report to the Consent Holder confirming that the outlet structures are operating as intended in (a) and, if any issues for fish passage are identified with the outlet structure through the examination in (c), the freshwater ecologist shall identify remedial actions (if any) to ensure operation as intended in (a) is achieved. (e) Provide a copy of the report under (d) to the Manager, Environmental Regulation within 2 weeks of receipt and within 12 months of receipt have completed any identified remedial actions and confirm in writing to the Manager, Environmental Regulation that the works have been completed.
Beach Nourishment Plan	
EM.13	The Consent Holder shall engage a suitably qualified and experienced person to prepare a BNP in consultation with a suitably qualified and experienced ecologist and submit this to the Manager, Environmental Regulation for certification in accordance with the requirements of Condition GC.5. Beach nourishment shall only occur in Point Howard beach, York Bay and south Lowry Bay and be deposited in general accordance with the draft plans in Appendix 2 to these

Commented [A11]: Responds to Question 14.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~22 January 2021.

Ref	Condition
	conditions. The maximum volume of material that may be deposited is 6,000m ³ , to be distributed between the three bays as outlined in Table 5-1 of Appendix F of the AEE.
EM.14	The purpose of the BNP is to ensure that the design and placement of beach nourishment materials is undertaken in a manner that avoids (in particular, seagrass) or otherwise minimises adverse effects and appropriately responds to local coastal processes. The BNP shall include, but not be limited to: (a) The design conditions at the time of the beach nourishment, and for the beach nourishment to achieve after 2 years. (b) The name and location of the sediment source. (c) Evidence of approvals and consents for taking the material and ensuring imported materials do not exceed allowable maximum contaminant levels under the relevant ADAWR (2019) Default Guideline Values. (d) A specification of the borrow material including: (i) Ensuring no more than 32% of sediment is of a size smaller than 62 microns; (ii) The grading envelope; (iii) Colours; and (iv) Extent of placement. (e) A construction methodology to limit potential adverse effects that includes, but is not limited to, the following measures: (i) Separation and disposal offsite of silts and clays in beach excavation sediments; (ii) Use of beach nourishment sediments that are similar or slightly coarser than in situ sediments that will maintain the existing profile without spreading onto seagrass beds; (iii) Excluding fine sediments from beach nourishment sediments; (iv)(iii) Only undertaking beach nourishment in the winter months between June and August; (v)(iv) Forming the high tide construction beach with a slightly over-steepened profile; (vi)(v) Only depositing as much sediment on the beach as can be transferred along the placement area in the day of placement; (vii)(vi) Only transferring and shaping the beach profile during lower tide levels in calm conditions and such that the formed toe does not extend much beyond mean low water springs; (viii)(vii) Minimising the working area and mobilization of sediment; (ix)(viii) Stockpiling woody debris and then replacing woody debris in the wrack line following beach nourishment; (x)(ix) Avoiding the placement of beach nourishment materials, no further south than the centerline of Gill Road at the southern end of Lowry Bay; (xi)(x) At Lowry Bay, ensure any barging of beach nourishment material avoids the disturbance of seagrass beds; and (xii)(xi) Forming and shaping a steeper profile within the existing beach footprint. (f) Placing imported beach sediment along the entire designated placement area rather than in one discrete location and within Lowry Bay, two staged placements of coarse sand or larger – using grading of 10% coarse gravels, 70% medium gravels, and 20% coarse sands and fine gravels 1-2 to 3% with greater volumes deposited towards the north and lesser volumes deposited towards the south to avoid adverse effects on adjacent seagrass beds.

Commented [A12]: Responds to Question 15.

Commented [A13]: Responds to Question 15 – consequential change as already conditioned more accurately in (d)(i) above.

Commented [A14]: Responds to Question 15.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Ref	Condition
	(g) Specifying methods to separate excavated beach sediments from any unsuitable material removed from the old seawall structure which are to be disposed offsite. (h) Minimising the potential to block stream outlets with fish passage during beach nourishment by: (i) Identifying pipe outlets that are identified as important for fish passage as identified in Table 7 of Appendix B of the AEE; (ii) Avoiding the initial placement of sediment within 10m of existing outlets; and (iii) Monitoring stream outlets indicated in Table 6 of Appendix B of the AEE during beach nourishment and then fortnightly for the first 6 months after nourishment and monthly for another 6 months thereafter to check they remain clear. If blocked, the Consent Holder shall clear gravels and sand block the outlets. <i>Advice note: Clearance of any accumulated material at the outlets may require a separate consent if not able to comply with permitted activity standards.</i>
<i>Beach monitoring and management– beach nourishment</i>	
EM.15	The Consent Holder shall undertake monitoring of beach volume via 6 monthly beach profiles (or equivalent elevation surveying techniques) to ensure the actual effect on beach sediment processes is in line with the expectations for the generally minor redistribution of beach material. The monitoring shall commence prior to the Commencement of Construction in each bay in Condition EM.13, and continue for 2 years after the Completion of Construction in that bay. If nourishment occurs in more than one bay, the monitoring timing shall be aligned so that the monitoring of each bay occurs at the same time. This monitoring information shall be interpreted at the end of the 2 year period in that bay by an experienced coastal scientist and that interpretation shall be provided to the Manager, Environmental Regulation within 1 month of its completion.
EM.16	The monitoring should include the nourished area and the foreshore at the base of the seawall extending at least 60 metres along the seawall at both edges of the nourished area at York Bay and Point Howard beach, and 60 metres to the south and 240 metres to the north of the nourishment at Lowry Bay.
EM.17	If beach nourishment monitoring results in Condition EM.15 show that design conditions in the BNP have not been met, then the Consent Holder shall, if deemed to be required by an experienced coastal scientist or engineer, 'top up' the beach nourishment and/or undertake beach maintenance as recommended. Only one 'top up' event may occur at each location. If a 'top up' is required, it shall occur within 2 years of the completion of the monitoring. If a 'top up' is required at more than one bay then the nourishment and/or maintenance shall, if possible, be undertaken at the same time. The design conditions of such 'top ups' shall be prepared by an experienced coastal scientist or engineer and certified as meeting the design conditions of beach nourishment in the BNP by the Manager, Environmental Regulation in accordance with the requirements of Condition GC.5. To avoid doubt, Condition EM.14(e) applies to any beach nourishment 'top up'.
EM.18	An intertidal and subtidal benthic invertebrate monitoring programme designed by a qualified ecologist will be undertaken at least 12 months after the completion of beach nourishment in that bay to assess whether the redistributed beach nourishment material is having any significant adverse effect on the benthic intertidal and subtidal biota. If monitoring results show that redistributed beach nourishment material has had significant adverse effects on the benthic intertidal and subtidal biota, any 'top ups' under EM.17 will be designed by the Consent Holder to appropriately minimise those significant adverse effects on benthic intertidal and subtidal biota.



Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~^{22 January} 2021.

Ref	Condition
<i>Seawall and revetment habitat</i>	
EM.19	The Consent Holder shall engage a suitably qualified ecologist to prepare a Seawall and Revetment Habitat Plan (SRHP) and submit this to the Manager, Environmental Regulation for certification in accordance with the requirements of Condition GC.5 prior to Commencement of Construction. <u>The purpose of the SRHP is to identify and provide design options that incorporate appropriate habitat features for intertidal biota within/on the seawall.</u> The SRHP shall provide for appropriate habitat for intertidal biota, including but not limited to: (a) incorporating textures to the curved surfaces and depressions to the flat platforms of the seawalls; (b) drilling rock pools into the hard revetment rock of the mid-low tide zone; (c) reuse of larger colonised rock material; (d) purpose-made rock pool features (to be used where appropriate, and without compromising structural integrity); (e) where appropriate and/or feasible, pre-cast 'pot plant/window box structures that can be added to the surface of the curved seawall'; and (f) a map of appropriate scale, showing where each method of enhancement will occur.

Commented [A15]: Responds to Question 16.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Landscape, Urban Design and Visual (LV)

Ref	Condition
<i>Landscape and Urban Design Plan</i>	
LV.1	The Consent Holder shall prepare a LUDP for the Project and submit this to the Manager, Environmental Regulation and Team Leader, Resource Consents for certification <u>that the process is in accordance with the conditions to achieve the purpose in Condition LV.2 and in accordance with the requirements of Condition GC.5.</u> The Consent Holder shall provide the LUDP for certification within 3 months of the commencement of the consents. The process to prepare the LUDP, including as set out in Condition LV.3, must be completed within this timeframe.
LV.2	The purposes of the LUDP are to: (a) Provide a detailed design for the Project that responds to local landscape character, identity and land use and is in general accordance with the Design Features Report (dated January 2019) and other relevant plans and documents referred to in Condition GC.1; (b) Integrate the Project's permanent works into the surrounding landscape and urban context and to illustrate the urban and landscape design elements of the Project; and (c) Outline methods and measures to avoid or minimise adverse effects on natural character, landscape and recreational amenity during the construction of the Project.
LV.3	The LUDP shall be prepared by the Consent Holder with input from a suitably qualified and experienced ecologist, engineer, landscape architect, recreation specialist, traffic engineer, urban designer and access and mobility advisor and, in consultation with: (a) The Mana Whenua Steering Group to be established under Condition MW.1; (b) Relevant Resident Associations; (c) Hutt City Council (Parks and Reserves); and (d) The Eastbourne Community Board.
LV.4	The LUDP shall reflect and/or incorporate any relevant management plans as appropriate and, as a minimum, shall address how the detailed design of the Project: (a) Achieves design outcomes based on the following environmental effects: (i) Safety; (ii) Ecology; (iii) Natural character; (iv) Public access; and (v) Urban design, recreational and visual amenity; (b) <u>In the event of conflict between the environmental effects in (a), they will be considered in accordance with their order listed in (a), subject to the significance (if any) of their values relevant to the specific design matters being considered, and the significance of the matters in the context of each individual bay.</u> (c) Responds to any relevant design elements recommended in the BPP while applying the same approach as in (a) and (b); and (d) Responds to: (i) The design principles set out in Appendix J: Design Features Report (dated January 2019) and other relevant plans and documents referred to in Condition GC.1; and (ii) Relevant Industry Standards.

Commented [A16]: Responds to Question 17.

Commented [A17]: Despite Question 18 no change is proposed to this condition for the reasons set out in the covering email.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~22 January 2021.

Ref	Condition
<i>Bay Specific Urban Design Plans</i>	
LV.5	The LUDP shall include the final BSUDPs for each bay within the Project area. The final BSUDPs shall address detailed design within the particular bay for the benefit of pedestrians, cyclists and others using the local road network as well as the specific urban design, landscape, ecology and recreational amenity matters (including those listed in Condition LV.7) as relevant to the particular bay. The final BSUDPs may either be attached to and certified as part of the initial LUDP or prepared later and added to the LUDP on a staged basis if the Construction Works are staged bay by bay and individually certified under Condition LV.6.
LV.6	The BSUDPs shall be prepared by the Consent Holder in two stages for each bay: (a) Stage 1: A draft design protocol that sets out the priorities for the bay design in terms of engineering, safety and access and mobility requirements as well as ecology, natural character, landscape, urban design and recreational amenity elements and issues. The draft design protocol shall provide visual representations of best practice on comparable coastal shared path projects to demonstrate the level of design to be targeted. The protocol shall be provided to the relevant Resident Association for the affected bay (if any) and the Eastbourne Community Board for comments (if any) within 15 working days from receipt. Any comments received, and the Consents Holder's response and reasons if they are not accepted, are to be provided to the Manager, Environmental Regulation, and Team Leader, Resource Consents alongside the draft design protocol, within 20 working days from receipt of the comments; and (b) Stage 2: The final BSUDPs are to be certified either on their own (in accordance with Condition GC.5) or, if included in the initial LUDP, when the LUDP is certified under Condition LV.1.
LV.7	The BSUDPs shall include specific landscape and urban design details for: (a) Seawall structures, including transition zones between seawall types and transitions between natural or rocky areas and seawall structures; (b) Beach access including steps, ramps and associated handrails where required; (c) Safety barriers and railing and screening barriers between important habitat for Shoreline Foragers and the shared path; (d) The treatment of stormwater structures at the coastal interface; (e) Little Penguin and Shoreline Forager related structures including penguin passage elements, ramps, nests, boxes and wooden poles for roosting; (f) Planting treatment; (g) The treatment of existing trees and existing landscape and natural features; (h) The design and area of space available for recreational amenity activities; (i) The design and orientation of features, spaces and access points; (j) Refuge and seating opportunities, including size and arrangement of space to allow for stopping and gathering at frequent intervals distributed along the route; (k) Signage ensuring their consistency along the shared path, including branding and reduction of visual clutter; (l) Storyboards; and <u>(m) Surface treatments; and</u> <u>(n) Any other relevant matter for that bay necessary to achieve the purposes of the LUDP in Condition LV.2.</u>

Commented [A18]: Responds to Question 19.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Mana whenua (MW)

Ref	Condition
<i>Mana Whenua Steering Group</i>	
MW.1	(a) At least 3 months prior to the Commencement of Construction, the Consent Holder shall invite mana whenua to establish a Mana Whenua Steering Group (MWSG) for the Project. The following parties shall be invited to include representatives on the MWSG: (i) Port Nicholson Block Settlement Trust, on behalf of Taranaki Whānui ki Te Upoko o Te Ika (Taranaki Whānui); and (ii) Te Rūnanga o Toa Rangatira Incorporated, on behalf of Ngāti Toa Rangatira. (b) The purpose of the MWSG is to: (iii) Facilitate ongoing engagement with mana whenua in respect of the activities authorised by these resource consents; (iv) Provide an opportunity for mana whenua to provide kaitiaki inputs into the Project as set out in Condition MW.3; and (v) Ensure appropriate tikanga and kawa (customary practices and protocols) are being applied throughout the development and implementation of the Project.
MW.2	The MWSG shall be invited to hold regular meetings (monthly) throughout the Construction Works until the Completion of Construction.
MW.3	The MWSG shall be invited to participate in the following: (a) Development of the Project detailed design to incorporate cultural values into elements such as: (i) Cultural expression in artwork and in landscape works and plantings through the LUDP required under Conditions LV.1 to LV.4; (ii) Signage and storyboards describing local features and the history of the area through the BSUDPs required under Conditions LV.5 to LV.7; and (iii) The ecological management and bird protection measures required under Conditions EM.1 to EM.19; (b) The processes required to be followed in respect of the discovery of archaeological features or deposits, or taonga, under Conditions AP.1 and AP.2; (c) Development and implementation of agreed cultural protocols/tikanga appropriate to the works or activities (for example, blessings, accidental discoveries, vegetation clearance and the relocation of native fauna); (d) Members of the MWSG shall be invited to talk to the chosen contractors to explain cultural values prior to the Commencement of Construction; and (e) Development and implementation during the Construction Works of cultural monitoring requirements and measures to acknowledge the historic and living cultural values of the area to mana whenua and to minimise potential adverse effects on these values.

Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

Archaeological Protocols (AP)

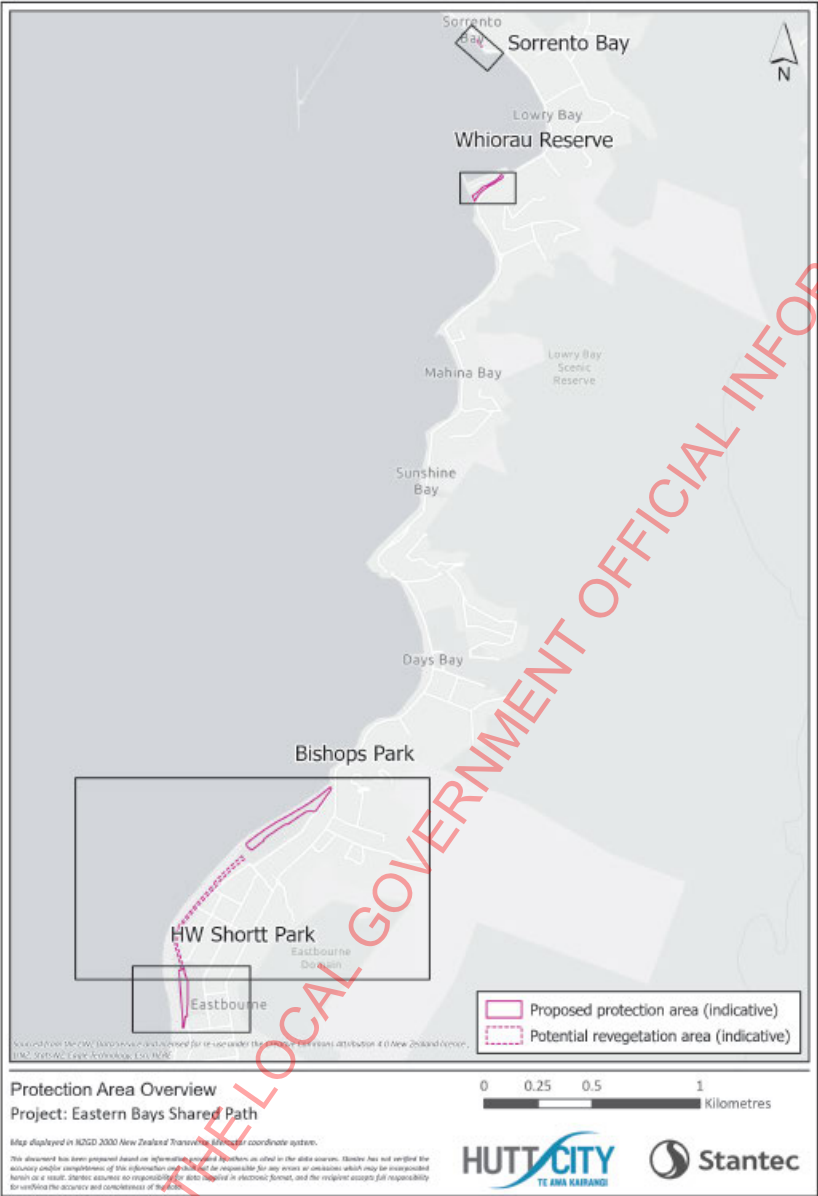
Ref	Condition
<i>Discovery of Archaeological Features or Deposits</i>	
AP.1	If remains are exposed that are potentially archaeological features or deposits, the following procedure should be adopted: (a) Earthworks should cease in the immediate vicinity while an archaeologist is consulted to establish whether the remains are part of an archaeological site as defined under the Heritage New Zealand Pouhere Taonga Act 2014. (b) If the archaeologist confirms that it is an archaeological site, the area of the site will be defined by the archaeologist and excluded from earthworks. (c) HNZPT will be informed of the discovery and, if the site cannot be avoided, an application for an archaeological authority to modify or destroy the archaeological site will be made (this is a legal requirement). (d) If the archaeological site relates to Māori occupation, Taranaki Whānui and Ngāti Toa Rangatira must be consulted. (e) No work can be carried out that will affect the site until the archaeological authority has commenced. (f) Any conditions attached to the archaeological authority must be complied with.
<i>Discovery of Taonga</i>	
AP.2	Maori artefacts such as carvings, stone adzes, and greenstone objects are considered to be taonga (treasures). These are taonga tūturu within the meaning of the Protected Objects Act 1975. Taonga may be discovered in isolated contexts, but are generally found within archaeological sites, modification of which is subject to the provisions of the Heritage New Zealand Pouhere Taonga Act 2014. If taonga are discovered the following procedure will apply to the taonga itself: (a) The area of the immediate site containing the taonga will be secured in a way that protects the taonga as far as possible from further damage. (b) The archaeologist will then inform HNZPT and the nominated Taranaki Whānui and Ngāti Toa Rangatira representatives so that the appropriate actions (from cultural and archaeological perspectives) can be determined. (c) Work may resume when advised by HNZPT or the archaeologist. (d) The archaeologist will notify the Ministry for Culture and Heritage of the find within 28 days as required under the Protected Objects Act 1975. This can be done through the Auckland War Memorial Museum. (e) The Ministry for Culture and Heritage, in consultation with Taranaki Whānui and Ngāti Toa Rangatira, will decide on custodianship of the taonga. <i>Advice note:</i> The contact details for Taranaki Whānui are as follows: (a) Port Nicholson Block Settlement Trust – Kirsty Tamanui telephone: +64 27 459 9050 PO Box 12164, Thorndon, Wellington 6144 (b) Wellington Tenth's Trust (Wellington) – Vicki Hollywell +64 4 473 2502 PO Box 39 294, Wellington Mail Centre, Lower Hutt 5045 24d Marine Parade, Petone. The contact person for Ngāti Toa Rangatira is: Naomi Solomon, Resource Management & Communications Manager, telephone: +64 4 238 4952 (email: naomi@ngatitoa.iwi.nz), PO Box 50355, Porirua 5024.



Proposed resource consent conditions for the Eastern Bays Shared Path Project
Dated 5 February 2021.

APPENDIX 1: PROTECTION AREAS

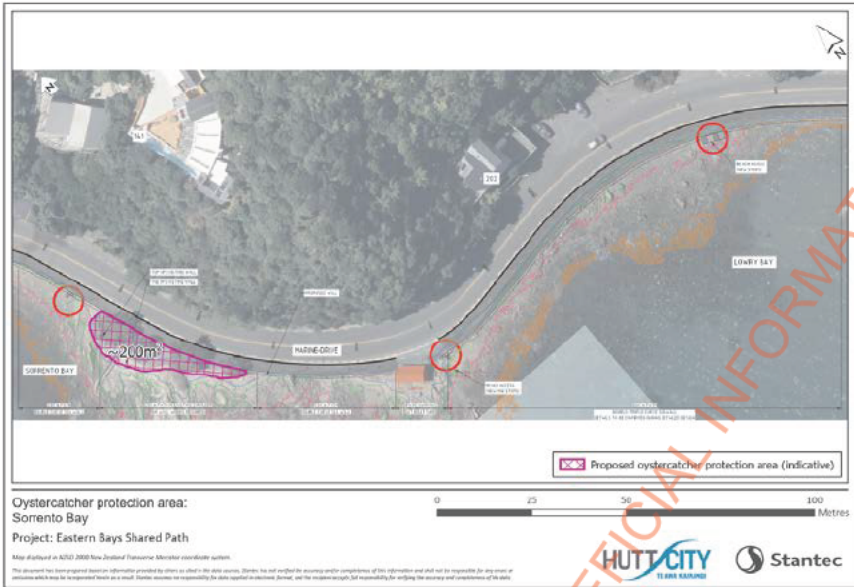
Overview



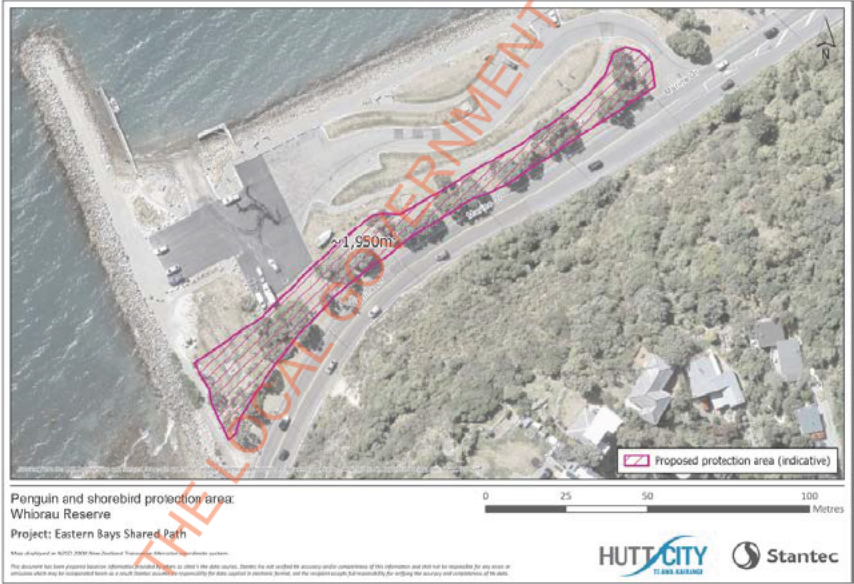
Proposed resource consent conditions for the Eastern Bays Shared Path Project
Dated ~~5 February~~22 January 2021.

BIRD PROTECTION AREAS

1. Sorrento Bay oystercatcher protection area



2. Whiorau Reserve penguin and shorebird protection area





Proposed resource consent conditions for the Eastern Bays Shared Path Project

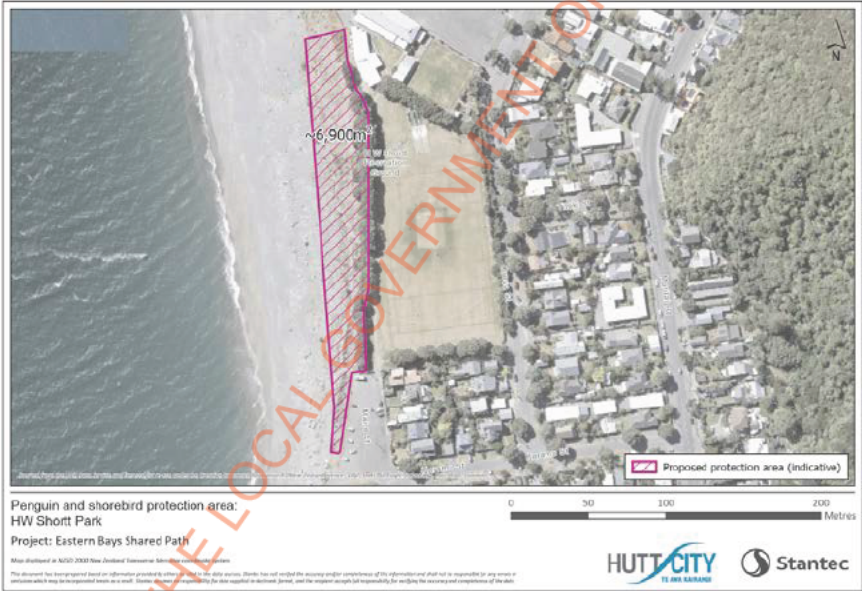
Dated 5 February 2021.

3. Bishops Park penguin and shorebird protection area and potential revegetation area

Commented [A19]: Responds to Question 20.



4. HW Shortt Park penguin and shorebird protection area

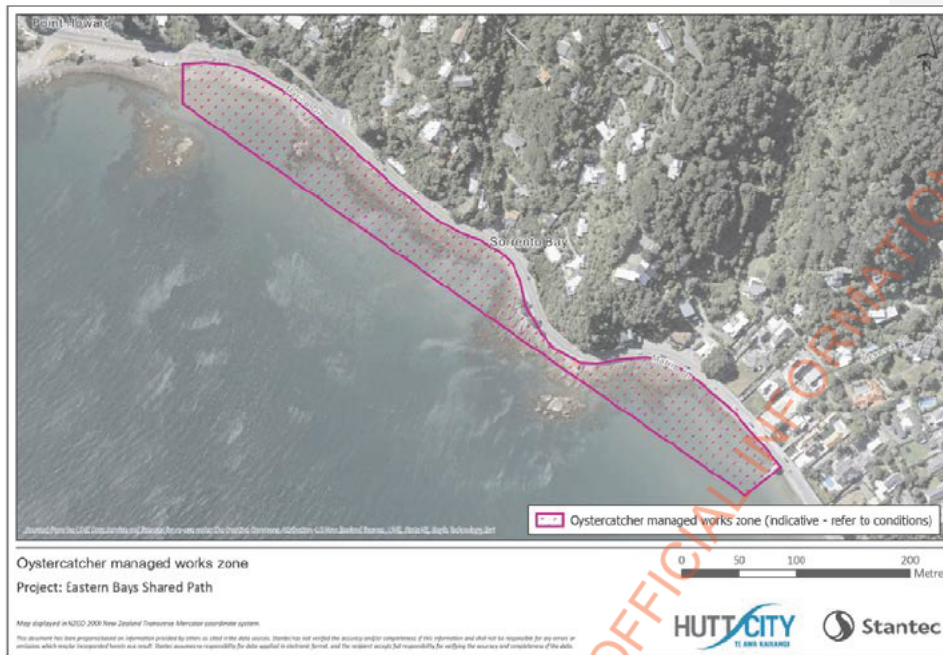




Proposed resource consent conditions for the
Eastern Bays Shared Path Project

Dated ~~5 February~~ 22 January 2021.

OYSTERCATCHER MANAGED WORKS ZONE

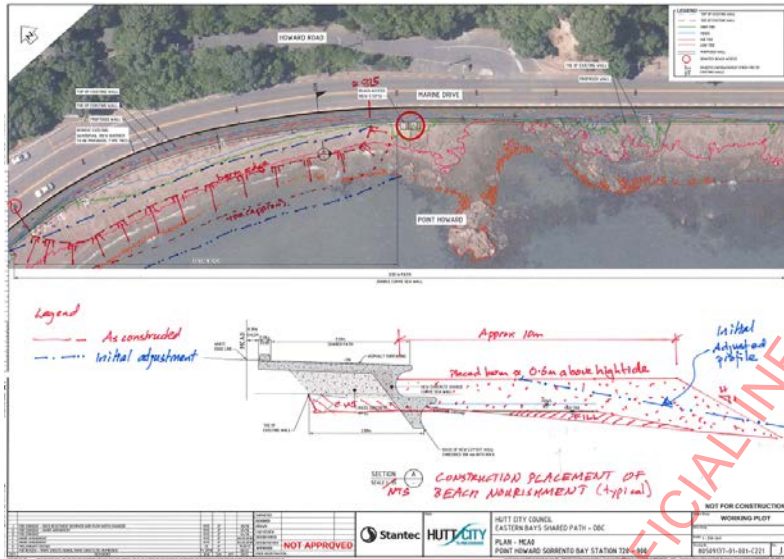


Proposed resource consent conditions for the
Eastern Bays Shared Path Project

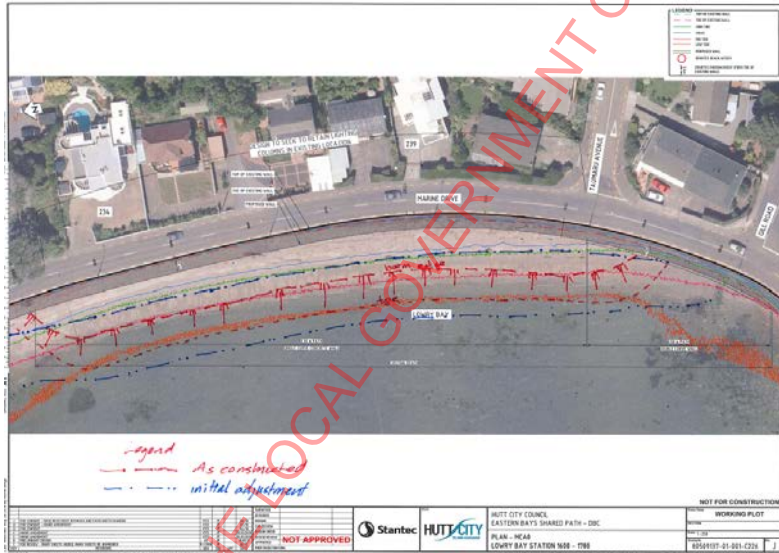
Dated 5 February 22 January 2021.

APPENDIX 2: DRAFT BEACH NOURISHMENT PLANS

Beach Nourishment – Point Howard



Beach Nourishment – Lowry Bay

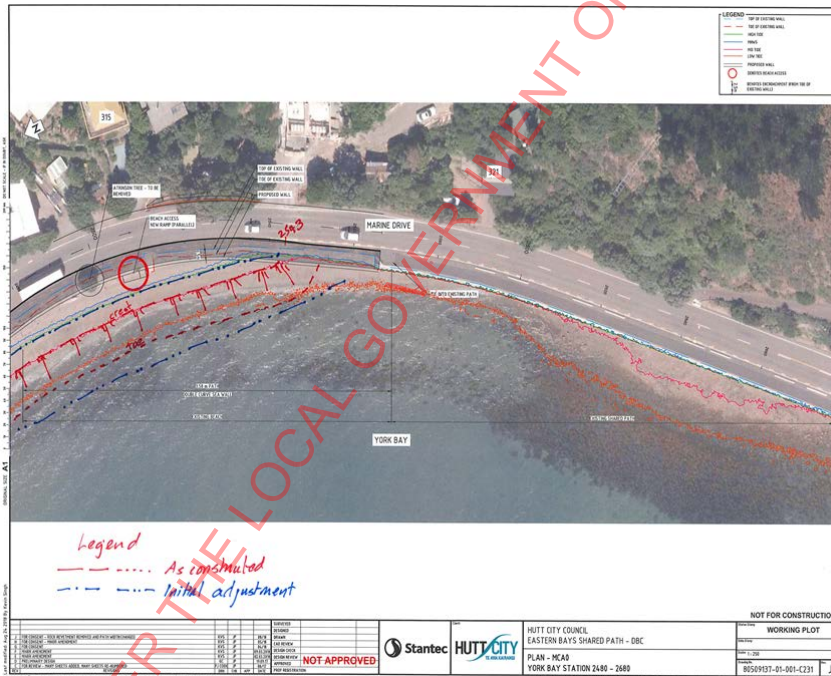
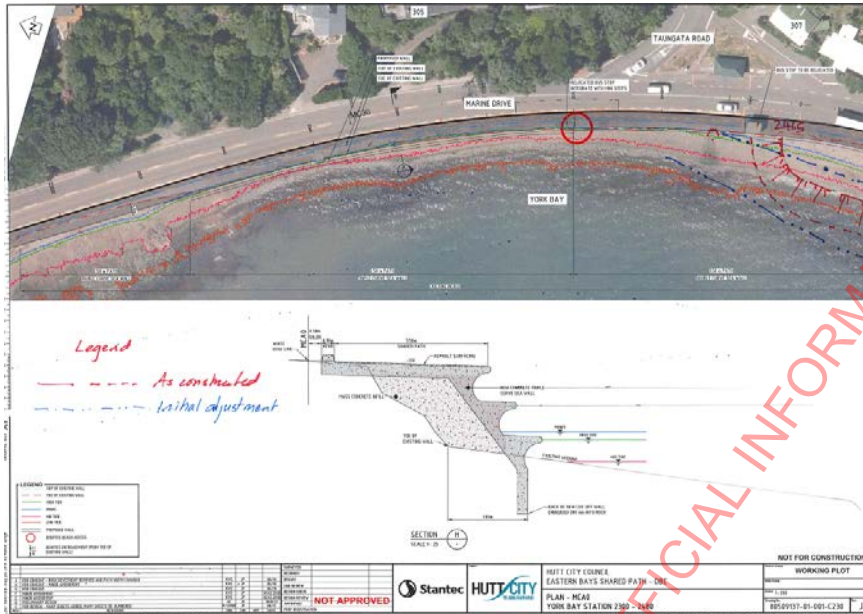




Proposed resource consent conditions for the Eastern Bays Shared Path Project

Dated 5 February 2021.

Beach Nourishment – York Bay

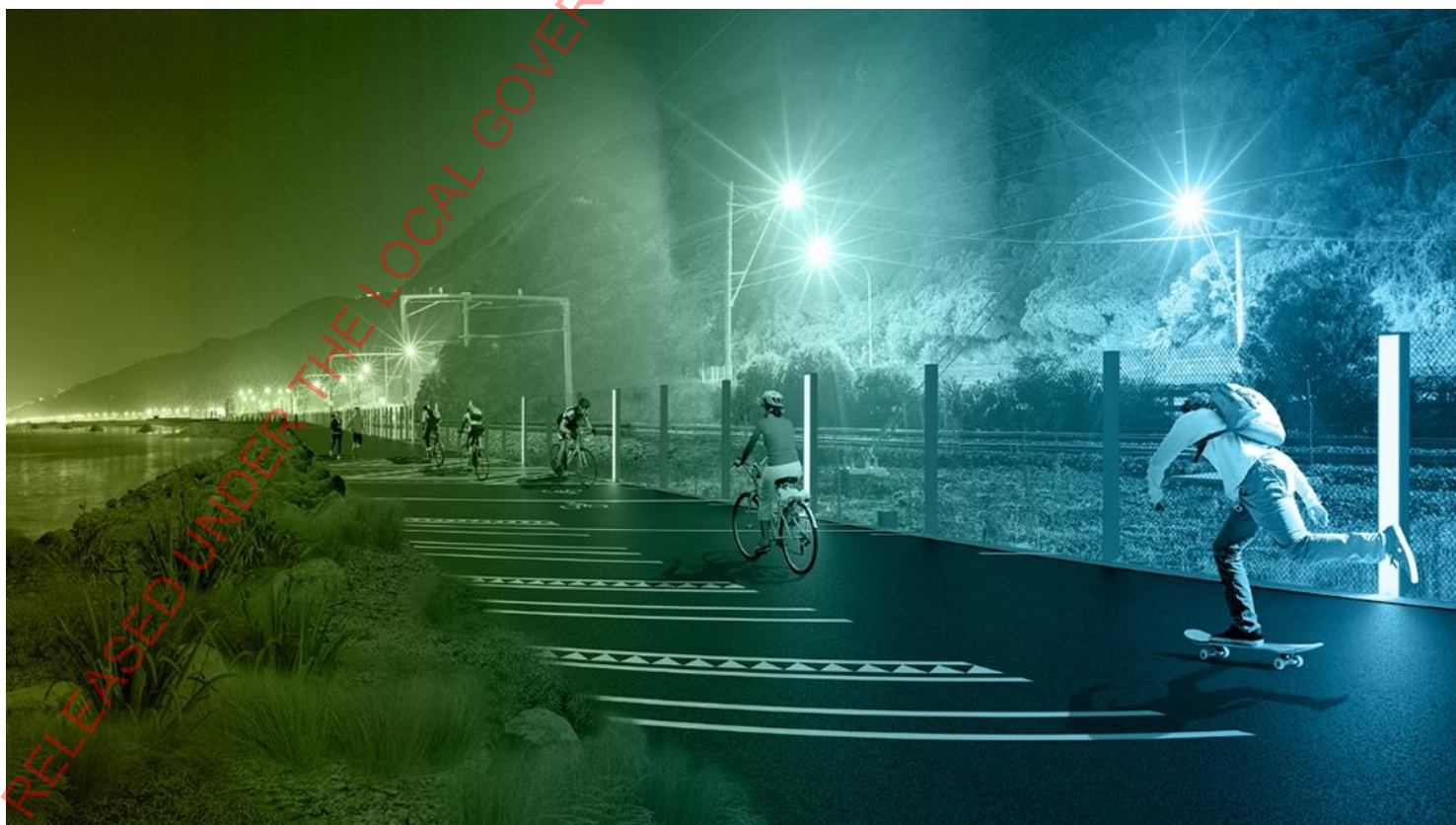




Te Ara Tupua Alliance
Shifting gear to connect past, present and future

Bird Protection Plan: Tupua Horo Nuku

NKP-TAT-THW-MPN-GV-NS-000027





Revision Schedule

Rev No.	Date	Description	Signature or typed name			
			Prepared by	Checked by	Reviewed by	Approved by
1	14/09/2021	Final version for certification	Nikki McArthur (Consultant Ecologist)	Caroline van Halderen (Stantec)	Caroline van Halderen (Stantec)	Jon England (Stantec)
2	8/11/2021	Response to GWRC comments	Nikki McArthur (Consultant Ecologist)	Caroline van Halderen (Stantec)	Caroline van Halderen (Stantec)	Michael Siazon (Hutt City Council)
3	7/11/2022	Amendments based on GWRC comments November 2021	Rubie McLintock (the Alliance)	Dr Leigh Bull (the Alliance)	Ed Breese (the Alliance)	Michael Siazon (Hutt City Council)
4	6/11/23	Amendments to the plan to update BPAs, include revetment key-hole design and construction related effects	Dr Leigh Bull (the Alliance) Rubie McLintock (the Alliance) Ed Breese (the Alliance)	Dr Leigh Bull (the Alliance)	Ed Breese (the Alliance)	Michael Siazon (Hutt City Council)



Table of Contents

Revision Schedule	0
Table of Tables	1
Table of Figures	2
Glossary 3	
1 Introduction.....	5
1.1 Background – the Project	5
1.2 Purpose and Objectives of the Bird Protection Plan	6
1.3 Statutory Requirements	6
1.3.1 Resource Consent Conditions	6
1.3.2 Integration with Other Management Plans.....	6
1.3.3 Wildlife Act 1953.....	7
1.4 Mana Whenua	7
1.4.1 Mana Whenua Partnership	7
1.4.2 Mana Whenua Values	8
1.5 Plan Structure	8
1.6 Consultation	9
2 Bird Protection Plan.....	10
2.1 Reviews and amendments to the BPP	10
2.1.1 Certification	10
2.1.2 Review of BPP	10
2.1.3 Amendments to the BPP	10
2.2 Roles and Responsibilities.....	10
2.3 Training	11
2.4 Reporting and Records.....	12
3 Project Description	13
3.1 Overview	13
3.2 Construction Timeline	13
4 Environmental Effects	14
4.1 Avifauna Values of the Eastern Bays	14
4.2 Environmental Effects on Kororā	14
4.3 Environmental Effects on Tōrea Pango	15
5 Dog Control Measures	16
6 Construction Measures	17
6.1 Penguin and Ecological Permits	17
6.2 Measures to Avoid Adverse Effects on Kororā	17
6.2.1 Pre-construction surveys.....	17
6.2.2 Penguin fencing during construction	18
6.2.3 Culverts	18
6.2.4 Accidental discovery.....	20



6.2.5	Establishment of nest exclusion zones	20
6.2.6	Kororā welfare monitoring	20
6.3	Measures to Avoid Adverse Effects on Shoreline Foragers	21
6.3.1	Pre-construction surveys	21
6.3.2	Establishment of nest exclusions zones and other measures	21
7	Pest Management Strategy	23
7.1	Eastern Bays Coastline Pest Management	23
7.2	Bird Protection Areas Pest Management	27
8	Shared pathway design features	28
8.1	Seawall	28
8.2	Revetment	28
8.2.1	Tidal Pools	28
8.2.2	Keyholes	29
8.2.3	Fencing	30
8.3	Culvert Design	32
8.4	Nesting opportunities	32
9	Bird Protection Areas	33
9.1	Overview	33
9.2	Sorrento Bay Bird Protection Area	35
9.2.1	Screen fence	35
9.2.2	Predator trapping	36
9.2.3	Signage	36
9.2.4	Rāhui	37
9.2.5	Vegetation management	37
9.2.6	Sea level rise response and resilience	38
9.2.7	Maintenance	38
9.2.8	Timeframe for Construction	38
9.3	Whiorau Reserve Bird Protection Area	40
9.3.1	Fencing	40
9.3.2	Pest Control	41
9.3.3	Planting plan	42
9.3.4	Signage	45
9.3.5	Kororā nest boxes	45
9.3.6	Sea level rise response and resilience	46
9.3.7	Maintenance	46
9.4	Bishop Park Bird Protection Area	48
9.4.1	Fencing	48
9.4.2	Pest control	48
9.4.3	Planting plan	49



9.4.4	Signage	50
9.4.5	Pedestrian accessways.....	51
9.4.6	Kororā nest boxes	51
9.4.7	Sea level rise response and resilience.....	51
9.4.8	Maintenance	52
9.5	HW Shortt Park Bird Protection Area	54
9.5.1	Fencing.....	54
9.5.2	Pest control	54
9.5.3	Planting plan.....	55
9.5.4	Signage	56
9.5.5	Pedestrian accessways.....	57
9.5.6	Kororā nest boxes	57
9.5.7	Sea level rise response and resilience.....	57
9.5.8	Maintenance	58
9.6	Review and Reporting of BPAs	60
9.6.1	Review.....	60
9.6.2	Reporting.....	60
10	Rubbish and Waste Management Plan.....	62
11	Public Education Campaign for Avifauna	63
11.1	Public Event to Open and Bless Bird Protection Area.....	63
11.2	Installation of a live Kororā Web Camera	64
11.3	Programme of Events for Eastbourne Schools and Kura Kaupapa	64
	Appendix A: Relevant consent conditions.....	67
	Appendix B: Record of Consultation.....	75



Table of Tables

Table 2.1. Roles and responsibilities relating to the BPP.....	10
Table 2.2. Reporting and record requirements.....	12
Table 3.1. Indicative construction programme	13
Table 9.1 Indicative planting plan for the Whiorau Reserve Kororā habitat	43
Table 9.2 Indicative planting plan for the Bishop Park backdune and kororā habitat.	49
Table 9.3 Indicative planting plan for the Bishop Park foredune habitat	50
Table 9.4 Indicative planting plan for the HW Shortt Park backdune and Kororā habitat	55
Table 9.5 Indicative planting plan for the HW Shortt Park foredune habitat.	56

RELEASED UNDER THE LOCAL GOVERNMENT OFFICIAL INFORMATION AND MEETINGS ACT 1987



Table of Figures

Figure 1.1. Location of works	5
Figure 1.2. Relationship between the consent conditions, CEMP and individual management plans	7
Figure 6.1: Kororā access provided by rocks	19
Figure 6.2: Wooden ramp / stairs to allow kororā to access the culvert.....	19
Figure 6.3 Extent of the Tōrea Pango / Variable Oystercatcher Managed Works Zone in Sorrento Bay	22
Figure 7.1 Map of the Eastern Bays coastline showing the layout of MIRO's ERAT and East Harbour Regional Park trap network. Data reproduced courtesy of MIRO.	25
Figure 7.2 Map of the Eastern Bays coastline showing the layout of MIRO's ERAT tracking tunnel (predator monitoring) network. Data reproduced courtesy of MIRO.	26
Figure 8.1: Vertical curved seawalls	28
Figure 8.2 Revetment	28
Figure 8.3. Example of tidal pools	29
Figure 8.4. Key hole detail in the revetment	30
Figure 8.5. Revetment fencing detail.....	31
Figure 8.6. Roadside fence around Whiorau Reserve	31
Figure 9.1 Map showing the locations of the four Bird Protection Areas included in this Plan	34
Figure 9.2 Example of the proposed design for the BPA timber fencing (reproduced from the Landscape and Urban Design Plan).	35
Figure 9.3 Proposed design for the Sorrento Bay BPA interpretation panels	36
Figure 9.4 Example design for the Sorrento Bay BPA warning signage.....	37
Figure 9.5 Landscape design for the Sorrento Bay Bird Protection Area	39
Figure 9.6 Example design for rope barrier around the perimeter of the Whiorau Reserve kororā nesting habitat.	41
Figure 9.7 Example design for the Whiorau Reserve BPA kororā nesting signage.....	41
Figure 9.8 Planting plan for the Whiorau Reserve Kororā habitat.....	44
Figure 9.9 Planting plan for the Whiorau Reserve Kororā habitat.....	44
Figure 9.10. Example of a Kororā artificial nest box on Matiu/Somes Island. The nest box has been placed under the shelter of a mature taupata (Coprosma repens) shrub	45
Figure 9.11 Landscape design for the Whiorau Reserve Bird Protection Area.....	47
Figure 9.12 Landscape design for the Bishop Park Bird Protection Area.	53
Figure 9.13 Landscape design for the HW Shortt Park Bird Protection Area	59
Figure 9.14 Information flow between operational reports, habitat reviews and the Bird Protection Plan	61
Figure 11.1 Screenshot from the Department of Conservation's Royal Cam webpage.	64
Figure 11.2 Emma Moodie from Ashburton Borough School standing beside a shorebird warning sign on the Ashburton River featuring her artwork. Image reproduced courtesy of Forest & Bird and Environment Canterbury.	66



Glossary

The table below defines the acronyms and terms used in the resource consent conditions and in this Bird Protection Plan. These acronyms and terms are capitalized wherever they occur in the text of the Plan.

Acronym/Term	Definition
BSUDPs	Bay Specific Urban Design Plans.
BNP	Beach Nourishment Plan.
BPA	Bird Protection Area.
BPP	Bird Protection Plan.
CEMP	Construction and Environmental Management Plan.
Certify, certification and certified	In relation to a management plan, means assessed by Council staff acting in a technical certification capacity and, in particular, whether the document or matter is technically consistent with the requirements contained within the conditions of this consent.
CMA	Has the same meaning as 'coastal marine area' in section 2 of the RMA.
Commencement of Construction	The time when Construction Works (excluding site investigations and Enabling Works) for the Project (or a part of the Project) commence.
Completion of Construction	When construction of the Project (or part of the Project) is complete.
Condition	One of the resource consent conditions that have been applied to the Eastern Bays Shared Path project.
Construction Works	One or more of the various activities (excluding site investigations and Enabling Works) undertaken under these resource consents.
Consent Holder	Hutt City Council.
Enabling Works	Includes the following and similar activities: a. geotechnical investigations (including in the CMA), including access on land for these investigations; b. establishing site yards, site offices, site entrances and fencing; c. establishing BPAs for kororā and Shoreline Forager populations and an oystercatcher protection area; d. demolition or removal of buildings and structures; e. relocation of services; and f. establishing minimisation measures (such as erosion and sediment control measures).
GWRC	Greater Wellington Regional Council
HNZPT	Heritage New Zealand Pouhere Taonga.
Kororā	Kororā / New Zealand Little Penguin (<i>Eudyptula minor</i>).
Little Penguin Interest Group	Department of Conservation, Mike Rumble, MIRO (ERAT) and Forest & Bird.
LUDP	Landscape and Urban Design Plan.
Manager, Environmental Regulation	The Manager, for the time being, of the Environmental Regulation Department, Wellington Regional Council.
MHWS	Mean High Water Springs.
MWSG	Mana Whenua Steering Group.
Project	The design, construction, operation and management of the Tupua Horo Nuku and associated works.
Project Ecologist / Ornithologist	A suitably qualified and/or experienced ecologist that has been engaged to assist with the implementation of the measures included in this BPP. For the purpose of this document, we have defined "suitably qualified and/or experienced" as anyone with a postgraduate qualification in ecology or conservation biology or at least five years practical experience in the conservation management and monitoring of Shoreline Forager species and kororās, and have given this person the title of Project Ornithologist.



Acronym/Term	Definition
RMA	Resource Management Act 1991.
Shoreline Forager	Obligate coastal bird species that use the Eastbourne Bays shoreline for foraging (e.g., Tōrea Pango (<i>Haematopus unicolor</i>) and matuku moana / reef heron (<i>Egretta sacra</i>)).
SRHP	Seawall and Revetment Habitat Plan.
Team Leader, Resource Consents	The Team Leader for the time being of the Resource Consent Department, Hutt City Council.
TMP	Traffic Management Plan.
Tōrea Pango	Variable Oystercatcher (<i>Haematopus unicolor</i>).
Working day	Has the same meaning as in section 2 of the RMA.



1 Introduction

1.1 Background – the Project

This Bird Protection Plan (BPP) has been prepared for the Tupua Horo Nuku (Eastern Bays Shared Path) project (the Project). The BPP was originally prepared by Stantec and has subsequently been amended by the Te Ara Tupua Alliance (the Alliance) on behalf of Hutt City Council (HCC) (the Consent Holder). The Alliance is delivering this Project through a partnership between Waka Kotahi NZ Transport Agency (Waka Kotahi) and HCC. Waka Kotahi established the Alliance to deliver the Ngā Ūranga ki Pito-One section of Te Ara Tupua and now Tupua Horo Nuku. The Alliance comprises of Tonkin + Taylor, HEB Construction, Downer NZ and Waka Kotahi.

The Tupua Horo Nuku shared path will comprise of a 4.4 km shared path along Marine Drive in two sections between Ngau-matau (Point Howard) and the northern end of Oruamotoro (Days Bay) and the southern end of Oruamotoro (Days Bay) to Matua-iwi Pa (Eastbourne) at Muritai Road / Marine Parade intersection as shown on Figure 1.1 (this section is otherwise known as Mā-koromiko (Windy Point)). The Project seeks to develop a safe and integrated walking and cycling pathway along Marine Drive to connect the communities along Hutt City's Eastern Bays and to provide links to other parts of the network for recreation and tourism purposes. Currently, pedestrians and cyclists are forced to use Marine Drive, which is generally a 50 km/hour narrow roadway, with little to no shoulder.



Figure 1.1. Location of works



The BPP has been amended to reflect the experienced gained from the construction of the Mā-koromiko and Sunshine Bay sections and a review of the BPP by Dr Leigh Bull an Ornithologist with special expertise with kororā. The Consent Holder is currently considering to how best meet its obligations regarding Bishops Park Bird Protection Area (BPA). The certification of the revised BPP is for the existing construction works in at Mā-koromiko and Sunshine Bay and to allow works to commence in York Bay. The BPP will be updated once the planning for Bishops Park BPA is finalised. The BPP will be reviewed prior to works at Ngau Matau, Whiorau (Lowry) Bay and Mahina Bay.

1.2 Purpose and Objectives of the Bird Protection Plan

The purpose of the BPP, as stated in resource consent condition EM.3A, is to outline a suite of measures that will as far as reasonably practicable avoid, but otherwise minimise, adverse effects on kororā (Little Penguins) and Shoreline Foragers in the Project area and adjacent areas. Adjacent areas include the four BPAs required to be developed as part of the Project.

As stated in Condition EM.3A, the objectives of the BPP shall be to:

- a. *Maintain or enhance the level of habitat and species diversity post-construction of the Project comparative to that existing pre-construction.*
- b. *Maintain or enhance habitat for Kororā and Shoreline Foragers along the Eastern Bays coast comparative to pre-construction of the Project.*

1.3 Statutory Requirements

1.3.1 Resource Consent Conditions

The resource consents associated with the Tupua Horo Nuku Project were granted under the Resource Management Act 1991 (RMA) subject to conditions by an independent hearing panel on 5 March 2021. The resource consent has subsequently been changed under section 127 of the RMA to correct an error between the design drawings and the allowable area of coastal reclamation. This application did not result in any changes to the requirements of this BPP.

HCC is required to prepare and submit a BPP for certification in accordance with resource consent conditions EM.1 to EM.11. The conditions including where they have been addressed in this management plan are attached in Appendix A.

In summary, the BPP must be provided to Council(s) for certification at least 30 working days prior to the Commencement of Construction¹ on the relevant stage of the Project. Condition GC(f) allows management plans to be submitted for certification in parts or in stages to address activities or reflect the staged implementation of the Project; this BPP covers all bays².

1.3.2 Integration with Other Management Plans

The CEMP is the overarching management plan for the Project, and the other management plans fall under the CEMP. Figure 1.2 sets out the relationship between the consent conditions, the CEMP and individual management plans (including the BPP). Although the management plans have been prepared individually, they are all related to the management of works. The procedures of all management plans will be adhered to at all times during works.

¹ The time when Construction Works (excluding site investigations and Enabling Works) for the Project (or a part of the Project) commence.

² Version 3 of the BPP has been certified by GWRC for Mā-koromiko and Sunshine Bay

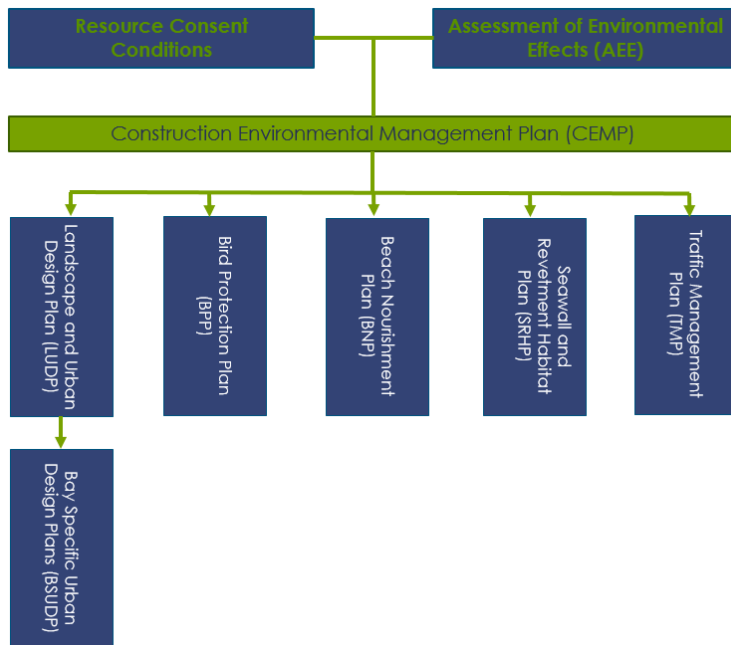


Figure 1.2. Relationship between the consent conditions, CEMP and individual management plans

1.3.3 Wildlife Act 1953

The Wildlife Act 1953 outlines the protection and control of wild animals and birds and the management of game. Under Section 53 (taking or killing of wildlife for certain purposes) of the Wildlife Act 1953, a wildlife permit can be sought for the catch, release and handling of species such as the kororā or lizards.

A Wildlife Permit application has been lodged with the Department of Conservation (DOC) for the Project to capture, handle and relocate kororā as well as a Wildlife Permit to capture, handle and relocate lizards. No works involving the catching, release or handling of protected species will occur without the relevant permits. In the interim, handling of protected species will be undertaken by others holding the relevant Wildlife Act permits if required.

1.4 Mana Whenua

1.4.1 Mana Whenua Partnership

The Alliance and HCC are working in partnership with Mana Whenua, being Taranaki Whānui ki te Upoko o te Ika and Ngāti Toa Rangatira (Mana Whenua). As part of this partnership, the Alliance supports the broader outcomes for Mana Whenua, Māori, Pākehā and local communities – from interception to delivery. The partnership operates on this Project through the Mana Whenua Steering Group (MWSG).

The MWSG is comprised of three representatives from Taranaki Whānui (one of whom is the chair), one representative from Ngāti Toa Rangatira, along with two representatives of Waka Kotahi. The iwi representatives are appointed through their respective iwi entities, Port Nicholson Block Settlement Trust for Taranaki Whānui, and Te Rūnanga o Toa Rangatira incorporated for Ngāti Toa Rangatira.

The purpose of the MWSG is to ensure that significant Crown projects within Te Whanganui-a-Tara and the region are collaboratively designed and delivered to maximise the number of realised positive outcomes for the land, Mana Whenua and the environment. The role of the MWSG is to:

- **Exceed best practice:** The MWSG will be an exemplar for an authentic Treaty partnership, that is mana enhancing and deliver on the relevant Crown strategies that provide for Mana Whenua interests, including improved economic, social and cultural outcomes for Mana Whenua and Māori within the region.
- **Identify opportunities:** The MWSG will identify opportunities to influence and provide for positive outcomes through the consenting, design and delivery of significant Crown led projects which reflect the interests and aspirations of Mana Whenua.



- **Connect people:** The MWSG is the primary connection between the Crown, Councils and the wider mana whenua communities, marae, trusts and the representative entities which appoint them.
- **Realise outcomes and aspirations:** Having identified opportunities and connecting people, the MWSG are tasked with supporting the guiding the outcomes which are being sought.
- **Fulfil statutory requirements:** The MWSG will work with the Crown and Councils (as appropriate) to achieve compliance with the relevant consent conditions for subject projects.

The MWSG operates within its Terms of Reference (TOR) which was agreed by the partners. These terms give the MWSG a broad mandate to provide leadership and input to the Project. The MWSG operates and makes decisions by consensus, reflecting a balanced partnership. The MWSG was formed in July 2019 for the Te Ara Tupua Project. The Tupua Horo Nuku Project formally became part of the MWSG's scope in October 2021. The ongoing role of the MWSG is captured in the conditions of the existing consent for the Project. Through the MWSG, Mana Whenua are able to direct how the Project provides for cultural expression, including iwi as kaitiaki, to be recognised through the design, construction and operation of the Project.

1.4.2 Mana Whenua Values

The Te Ara Tupua Kaitiaki Principles developed during 2020 in consultation with Taranaki Whānui advisors and the MWSG are also relevant and will be applied to this project:

Ranginui - the connection to the various spiritual realms of the great and vast heavens, the source of light and understanding, growth and ultimate link to the celestial family.

Mouri - The mouri of Te Ara Tupua – the living relationship between the ngahere, the cliffs, the water ways, hinemoana and everything that lives within that environment have their own individual and interdependent vitality.

Wai Tai, Wai Māori - Nga wai tuku kiri tai noa atu ki hinemoana – the connection between the springs, streams, aquifers, rivers and all waterways that bring with them their life, mouri and mana which eventually mingles together with Hinemoana.

Ahua - The character of Te Ara Tupua is seen, the beauty, the mystique, the wonder, the wild and rawness – the identity of Te Ara Tupua endures beyond the present through capturing and captivating the hearts and minds of the few and the many.

Tātai Whakapapa - The history, the connections, the relationships and friendships – they shape the land and the people.

Whānau - The care of manuhiri and people is embedded in the identity of Te Ara Tupua seeking to ensure a strong sense of connection imbuing a strong sense of responsibility towards Te Ara Tupua.

Mana Whenua - Te Ara Tupua is seen as a living piece of the identity of Mana Whenua who take pride in this space, taking on the obligation of care, responsibility and giving life to its history and story.

Papatūānuku - The mountains, the cliffs, the landforms, the geology, ngahere, trees, birds – they all need each other to exist.

1.5 Plan Structure

This BPP has been structured around the requirements that are outlined in the relevant consent conditions and is structured as follows:

- Section 1 – Introduction
- Section 2 – Bird Protection Plan
- Section 3 – Project Description
- Section 4 – Environmental Effects
- Section 5 – Dog Control Measures
- Section 6 – Construction Measures
- Section 7 – Pest Management Strategy
- Section 8 - Shared pathway design features
- Section 9 – Bird Protection Areas



- Section 10 – Rubbish and Waste Management Plan
- Section 11 – Public Education Campaign for Avifauna

1.6 Consultation

In accordance with Condition EM.3B, the BPP has been prepared in consultation with the Little Penguin Interest Group (LPIG), the Eastbourne Dunes Restoration Group and the Mana Whenua Steering Group.

The LPIG comprises of representatives from:

- DOC (Brent Tandy).
- Forest and Bird (Amelia Geary).
- Mike Rumble.

The group was established early in 2020 after the Project was notified and submissions received. It was established as a result of the differing opinions of the various parties with an interest in penguins in the Eastbourne Area.

A key piece of recent consultation has been with the LPIG regarding the design of Whiorau Reserve and the alignment of the pathway on the roadside rather than through the Reserve. Mana Whenua have also been consulted with on this matter. As a result of these conversations, the design was amended and the BSUDP covering Whioraru Reserve is in the process of being amended to cover other design aspects too. This will be provided to GWRC and HCC in due course for certification.

A record of the consultation and comments received, on the original version together with an indication on how the comments were dealt with, is contained in Appendix B of this plan.



2 Bird Protection Plan

2.1 Reviews and amendments to the BPP

2.1.1 Certification

The BPP will be submitted to GWRC for certification at least 30 working days prior to the Commencement of Construction for the Project, or, if construction is staged, then at least 30 working days prior to Commencement of Construction on the relevant stage.

If no comments are received on a management plan within 15 working days, then the management plan is deemed to be certified.

In the event that the Manager, Environmental Regulation, refuses to certify a management plan, or a part of stage of a management plan, HCC shall submit a revised management plan for certification as soon as practicable. Should certification of the revised plan be refused, then HCC (as Consent Holder) must engage a suitably qualified, mutually acceptable independent expert to resolve the matters within dispute within ten working days of the refusal. The expert shall resolve the matters in dispute within 10 working days of being engaged.

2.1.2 Review of BPP

The BPP may be updated or reviewed at any time in response to incidents, complaints, changes to the construction methodology, the identification of new methods and knowledge obtained from JSEA reviews, site inspections / audits and the monitoring regime. The review and/or update will be organised by the Partnerships, Environment, Planning and Communications (PEP-C) Manager.

2.1.3 Amendments to the BPP

If the BPP is required to be amended, the Alliance will discuss and submit the amendments as required with the Manager, Environmental Regulation, Greater Wellington Regional Council (GWRC) (the Manager). Any minor changes in design, construction methods or the management of effects that require an update to the BPP do not need to be re-certified in accordance with Condition GC.5(g). Any material amendments to the BPP will be submitted to Council(s) for certification as per Condition GC.5(h).

Any amendments made to the BPP will be in accordance with the purpose and objectives of the BPP as outlined in Section 1.2.

A schedule of updates to the BPP will be maintained at the front of the document as required. The Project team will be informed of any changes to the BPP through regular Project communication processes and the on-site version of the management plan will be updated promptly and prior to any works associated with the amendments being implemented. All management plans will be stored in InEight (document control system) and re-issued to relevant parties.

2.2 Roles and Responsibilities

Table 2.1 summarises the roles and responsibilities of the parties to this BPP. These roles and responsibilities include those relevant to the implementation of the BPP only; some parties will have additional roles and responsibilities in one or more of the additional management plans outlined in Figure 1-2 above).

Table 2.1. Roles and responsibilities relating to the BPP

Organisation	Role	Roles and Responsibilities
Hutt City Council	Consent Holder	Overall responsibility for the Project and compliance with resource consent condition including implementation of the Plan
The Alliance	Project Director	Overall responsibility for the Project
	Owner Interface Manager	Interface between the Alliance and HCC



Organisation	Role	Roles and Responsibilities
	Project Ornithologist	- Responsible for carrying out pre-construction surveys for nesting or moulting kororā and for recommending measures to ensure Construction Works avoid adverse effects on nesting or moulting kororā - Responsible for providing contractor training. - Responsible for delivering kororā welfare monitoring. - Responsible for carrying out pre-construction surveys for nesting Shoreline Foragers and for recommending measures to ensure Construction Works avoid adverse effects on Shoreline Foragers. - Has full authority to order Construction Works to cease should concerns arise regarding the welfare of kororā or Shoreline Foragers arise as a result of construction activities.
	Penguin detector dog and handler	Responsible for carrying out pre-construction surveys for nesting or moulting kororā
	Zone Manager	Responsible for ensuring that Construction Works are carried out in a manner that give effect to relevant measures included in this Plan.
	Site Supervisor	Responsible for ensuring that Construction Works are carried out in a manner that give effect to relevant measures included in this Plan.
	Project / Site Engineers	Responsible for ensuring that Construction Works are carried out in a manner that give effect to relevant measures included in this Plan.
	Communications and Stakeholder Advisor	- Main point of contact for the public engagement and the LPIG - Implementation of the public education campaign
MWSG	Governance body	Review of the BPP and ensuring BPP is prepared to give effect to the Mana Whenua values.
Eastbourne Dune Restoration Group	Interest group	Involvement in the review of the BPP in accordance with the consultation requirements.
LPIG	Advisory group	- Responsible for advising on the BPP and BPAs. - Provision of advice on the design and content of interpretation panels and warning signage, and the placement of kororā artificial nest boxes within the BPAs - Assistance with the implementation of the Public Education Campaign for Avifauna.
MIRO	Interest group	Responsible for the implementation of the Pest Management Strategy included in this Plan.
Regulatory authorities		
HCC	Team Leader, Resource Consents	Auditing to ensure consent conditions are being met
GWRC	Manager, Environmental Regulation	- Certification of BPP - Auditing to ensure consent conditions are being met

A key contact list for the Project will be maintained for the duration of the Project and provided to the Councils. Any updates to the key contacts list will be sent to the Councils and other key stakeholders as required.

2.3 Training

The Project Ornithologist shall provide training to contractors working on the Project on the detection of kororā to increase the likelihood that any birds not detected during pre-construction surveys are detected during subsequent Construction Works before they suffer severe disturbance or injury:



- Training staff to identify field sign that indicates the presence of a kororā nesting or moulting site, including the presence of guano, feathers, footprints, seabird smell or a defined penguin ground-trail.
- Briefing staff on the process to be followed should a kororā be found during Construction Works, including separate processes for dealing with injured, uninjured and dead penguins (for further detail on these processes, see Section **Error! Reference source not found. Error! Reference source not found.**).

Note, the training shall **not** include advice on how to handle kororā, as this should only be done by a suitably-experienced expert with an appropriate Wildlife Act Authority.

Once a contractor training session has been scheduled, the Project Ornithologist shall extend an invitation to members of Taranaki Whānui via the MWSG, to create the opportunity for members of Taranaki Whānui to improve their expertise in kororā monitoring, management and handling, and to participate in this work.

2.4 Reporting and Records

The reporting and record requirements relating to the BPP are identified throughout this report and are summarised in Table 2.2.

Table 2.2. Reporting and record requirements

Condition	Reporting requirement	Authority reported to	Timeframe
EM.1	When the monies specified in condition EM.1 have been allocated.	The Manager, Environmental Regulation, GWRC and the Manager, Regulatory Services, Hutt HCC.	Within three months following the spending of each item listed in (j) to (m) of EM.1 ³ .
EM.2(e)	Report on alternative dog control measures that may be available, and the details of any enforcement or compliance measures that may be implemented and report back. These shall be investigated if the alternative measures in EM.2(a) and (b) cannot be implemented.	The Manager, Environmental Regulation, GWRC and the Manager, Regulatory Services, Hutt HCC.	Within three months following the completion of the review of other dog control measures ⁴ .
EM.4A(g)	GPS coordinates including a photograph and annotated map of active nesting or moulting sites identified by the little penguin survey.	The Manager, Environmental Regulation, GWRC.	Within five working days of the survey
EM.4C	Monitoring outcomes from monitoring under EM.4B.	The Manager, Environmental Regulation, GWRC	Within one month of completion of the monitoring.
EM.5	Reporting on pest management.	The Manager, Environmental Regulation, GWRC	Annually – within two months following the annual period.
EM.8 / EM.8A	Review of BPA and associated reporting to GWRC.	The Manager, Environmental Regulation, GWRC	Within three months following the review of the BPA in accordance with EM.8A.
EM.8D	Variable oystercatcher study.	The Manager, Environmental Regulation, GWRC and the public.	Results provided within five years of the completion of construction.

³ No timeframe is specified for this reporting in the resource consent.

⁴ No timeframe is specified for this reporting in the resource consent.



3 Project Description

3.1 Overview

In summary, the Project includes the following features:

- **Shared path:** A 4.4 km long pathway with a 2.5 m to 3.5 m effective width (3.5 m to 4.6 m width) on a sealed surface.
- **Seawalls:** Multi-tiered recurved seawalls supports much of the share path formation. The seawalls consist of reinforced concrete pre-cast sea facing units infilled by bulk earth fill and in-situ concrete with a combination of extended landings and balustrades to provide safety from falling.
- **Revetment:** Two areas of revetment are proposed in Mahina Bay and York Bay. The revetment in these areas will be designed with key-holes.
- **Landscaping, cultural recognition features and artworks:** Landscaping and urban design finish of the path and at headlands, cultural wayfinding and path markings, and feature artworks are part of the project.
- **Culvert extensions:** Extension of approximately 13 existing culverts under the shared path is required.
- **Relocation of effected existing services:** Relocation of services impacted by the construction of the seawall and shared path.
- **Supporting traffic infrastructure:** Pedestrian and cyclist crossings, path markings, lighting, and bus stop facilities, including the relocation of bus stops.
- **Beach nourishment:** Nourishment of beach sand material at several the beaches adjacent to the seawall.
- **BPAs:** The establishment of BPAs at Sorrento Bay, Whiorau Reserve, Bishops Park and HW Shortt Park.

The detailed design process of Mahina Bay, Whiorau (Lowry Bay) and Ngau Matau (Sorrento Bay) is currently on-going.

3.2 Construction Timeline

An indicative construction programme is shown in Table 3.1. In general, construction works will be undertaken in two bays simultaneously. The below timeline is approximate only and is subject to change.

Table 3.1. Indicative construction programme

Bays	Timeline
Mā-koromiko	October 2022 to October 2023
Sunshine Bay	June 2023 to April 2024
Mahina Bay	March 2025 to April 2026
York Bay	November 2023 to September 2024
Whiorau (Lowry Bay)	April 2024 to January 2026
Ngau Matau (Sorrento Bay)	September 2024 to March 2025



4 Environmental Effects

4.1 Avifauna Values of the Eastern Bays

An evaluation of the avifauna values of the Eastern Bays and the environmental effects of the Tupua Horo Nuku Project on these values was carried out by Sustainability Solutions Ltd in 2019⁵. At least 23 native coastal bird species have been recorded along the Eastern Bays coastline, including two species ranked as Nationally Threatened and nine species ranked as At Risk under the New Zealand Threat Classification System. The majority of these species use the Eastern Bays coastline either for foraging or roosting or are present in adjacent coastal waters. Those species that use the Eastern Bays coastline for either foraging or roosting are referred to in this plan as Shoreline Foragers and include species such as matuku moana / reef heron (*Egretta sacra*), tarāpunga / red-billed gull (*Larus novaehollandiae*) and tōrea pango (variable oystercatcher) (*Haematopus unicolor*).

Two of the 23 coastal bird species recorded along the Eastern Bays coastline, the kororā and the tōrea pango, are known to breed along this coastline. At least 42 nest sites for kororā have been found within or adjacent to the project footprint and tōrea pango are known to breed at a single site on a rock several dozen metres offshore in Sorrento Bay. The majority of the project footprint also falls within, or adjacent to, two significant habitats for indigenous birds listed in Natural Resources Plan for the Wellington Region.

The potential effects of the Project on these coastal avifauna values can be divided into the construction and operational phases. Potential effects during the construction phase include a reduction in foraging and roosting habitat quality and quantity caused by sedimentation and encroachment of the Project into the intertidal zone. Noise and visual disturbance caused by construction works may also reduce local habitat quality and increases in the quantity of litter and food waste in coastal habitats may impact the health of Shoreline Foragers and attract mammalian predators which subsequently prey on nests and chicks. During the operational phase of the Project, increases in disturbance of coastal habitats by people and dogs may reduce habitat quality for Shoreline Foragers, and increased quantities of litter and food waste in coastal habitats may impact the health of Shoreline Foragers and attract mammalian predators.

Measures to be implemented to avoid or minimise effects on avifauna values during the construction phase of the Project are summarized in Section 6 of this Plan. These measures include conducting pre-construction surveys for nesting kororā and tōrea pango and the creation of exclusion zones around any nests found. Measures to be implemented to avoid or minimise effects on avifauna values during the operational phase of the Project are summarized in Sections 7, 8, 9 and 10 of this Plan. These measures include the implementation of a Pest Management Strategy along the Eastern Bays, the creation of four BPAs to maintain and improve existing kororā and Shoreline Forager habitats along the Eastern Bays coastline and a rubbish and waste management plan.

4.2 Environmental Effects on Kororā

The kororā is ranked as At Risk, Declining on a national scale and is ranked as Regionally Vulnerable within the Wellington Region under the New Zealand Threat Classification System. Two surveys using certified penguin detector dogs were undertaken in 2022 along the coastal edge of Marine Drive from Mā-koromiko in the south, to Whiorau (Lowry Bay) in the north; these comprised one survey during the non-breeding season (May 2022) and one during the breeding season (November 2022). Additional dog surveys have been undertaken at Mā-koromiko and Sunshine Bay in 2023 on an as required basis around construction works. To date, those surveys have identified 21 locations at which positive dog detections were obtained. The habitat at those 21 locations included stormwater culverts and under vegetation, but the majority were in artificial rock habitats in breakwaters and rock rip-rap seawalls. All detections are recorded in the Te Ara Tupua GIS system. This provides the most up to date information to all contractors working on the Project.

Both breeding and moulting activity was recorded at a number of these locations. As such, the Project will result in the direct impact on kororā habitat, but further losses are possible in the event that noise or visual

⁵ Sustainability Solutions (2019). An assessment of ecological effects of the proposed Eastern Bays Shared Path Project on coastal vegetation and avifauna. Client report prepared for Hutt City Council, Sustainability Solutions Ltd, Mapua.

disturbance, or the alteration of surrounding habitats, results in the abandonment of nests, which may include the destruction of eggs and chicks. There is also a risk for penguins to be killed or injured if birds are in nests when revetment is removed in preparation for reconstruction. These potential risks will be greatest during the breeding season and while birds are moulting (July to February inclusive).

These risks will be avoided through measures including carrying out pre-construction surveys to locate kororā nest sites prior to construction and maintaining exclusion zones around those nests during construction (for more detail, see Section 6.1 below). Natural recolonization of upgraded revetment by kororā over time is likely, and purpose-designed revetment nesting sites are proposed. Revetment walls for the Shared Path will be designed so that rocks of appropriate sizes are placed so that penguins will be able to gain access to cavities between the rocks and will be able to breed within the revetment walls. Moreover, over 200 artificial nest boxes will be installed in four BPAs being constructed as part of the Project, meaning that the Project will result in a net increase of kororā nesting habitat along the Eastern Bays coastline.

Adult mortality is a key driver of kororā population trends, given that this species is relatively long-lived and slow breeding. Twenty penguin mortalities have been recorded along the Eastern Bays coastline between 2015 and 2018. The majority of these penguins were killed by cars when attempting to cross Marine Drive, while several others have been killed by dogs. The Project includes a number of measures which should reduce kororā mortality caused by vehicles and dogs. For example, the BPA designs include impermeable barriers between constructed kororā habitats and Marine Dr to reduce the risk of kororā wandering through the constructed habitats and onto the roadway. A review of dog bylaws, the construction of barrier fences, the installation of signage and implementation of a public education campaign will together act to reduce the risk that dogs pose to kororā along the Eastern Bays coastline.

4.3 Environmental Effects on Tōrea Pango

The tōrea pango is ranked as At Risk, Recovering on a national scale and is ranked as Regionally Vulnerable within the Wellington Region under the New Zealand Threat Classification System. There are an estimated 728 tōrea pango present in the Wellington region, the vast majority of which are distributed around the region's coastline⁶. Tōrea pango are regular visitors to the Eastern Bays coastline, and one breeding pair nests annually on a small rock several dozen metres offshore in Sorrento Bay.

Because tōrea pango breed in Sorrento Bay, they are the Shoreline Forager that is at greatest risk of being adversely impacted by the Project. Potential impacts are similar to those for kororā, namely temporary or permanent reductions in habitat quality due to increased noise and visual disturbance, and the permanent loss of foraging, roosting or nesting habitat caused by encroachment of the shared path into the intertidal zone. As with kororā number of measures included in the Project are designed to avoid or minimise these potential adverse effects. The proposed beach nourishment work will act to retain the existing extent of intertidal habitat at Ngau Matau (Point Howard), Whiorau (Lowry Bay) and York Bay. Further enhancement of intertidal habitats will be achieved through the creation of seawall textures, and artificial rock pools. The implementation of a Pest Management Strategy will reduce the risk of tōrea pango eggs and chicks being lost to predators, and the construction of screening fencing in Sorrento Bay will reduce the risk of nesting tōrea pango being disturbed by increased pedestrian and cyclist traffic on the shared path. The erection of warning signage and interpretation panels, and the implementation of a public education campaign will also contribute to reducing levels of disturbance by both people and dogs. Disturbance caused during the construction of the Project will be managed by carrying out pre-construction surveys to locate tōrea pango eggs and chicks, and the creation of exclusion zones around any nests or chicks found.

⁶ McArthur, N.; Ray, S.; Crowe, P. and Bell, M. 2019. A baseline survey of the indigenous bird values of the Wellington region coastline. Client report prepared for Greater Wellington Regional Council, Wildlife Management International Ltd, Blenheim

5 Dog Control Measures

This section of the BPP outlines the measures that will be put in place to manage the risk that dogs pose to nesting or moulting kororā and nesting Shoreline Foragers, including tōrea pango. These measures give effect to consent condition EM.2 of the Project.

As soon as possible following the commencement of construction, but no later than 12 months following the commencement of construction, HCC shall initiate statutory processes to exclude dogs from:

- The foreshore and beach area of Rona Bay abutting the Bishop Park BPA and running for the same length; and
- The foreshore and beach area of Sorrento Bay from the southern end of the Sorrento Bay BPA and running to the northern end of the oystercatcher managed works zone.

Should these statutory processes to exclude dogs from the areas outlined above not be successfully delivered HCC shall:

- Review the fencing options for the Bishop Park and the Sorrento Bay BPAs to identify opportunities to upgrade or re-design the fencing to reduce the risk that dogs pose to nesting or moulting kororā and nesting Shoreline Foragers within these two areas;
- Develop and implement, in consultation with the Manager, Environmental Regulation and the Eastbourne Dunes Restoration Group, a revegetation plan for the area of existing foredune vegetation situated between the Rona Bay Pier and the southern boundary of the HW Shortt Park BPA. The purpose of this revegetation plan will be to further enhance the area for shorebirds through the establishment of screening plants and through the progressive replacement of exotic plant species such as marram grass, with appropriately eco-sourced native plant species;
- Install signage in the revegetation area between the Rona Bay Pier and the southern boundary of the HW Shortt Park BPA in accordance with Condition LV.7(k);
- Work with MIRO to ensure that pest management is carried out within the revegetation area between the Rona Bay Pier and the southern boundary of the HW Shortt Park BPA in accordance with Condition EM.5;
- Investigate alternative dog control measures that may be available and the details of any enforcement or compliance measures that may be implemented, and report back to the Manager, Environmental Regulation and the Manager, Regulatory Services, HCC.

In August 2023, a memorandum was provided to the leadership team at HCC outlining the work being undertaken to consider making changes under the Hutt City Dog Control Bylaw 2015 (the Bylaw) in accordance with the consent conditions for the Tupua Horo Nuku Project. This memorandum has advised Council on the consultation strategy proposed for the consultation process with the community. HCC will make the final discussion on Bylaw changes at its meeting in late 2023 or early 2024.



6 Construction Measures

This section of the BPP outlines in detail the measures that will be put in place to ensure that the construction of the Project shall avoid any potential adverse effects on nesting or moulting kororā and nesting Shoreline Foragers, including tōrea pango. These measures give effect to consent conditions EM.4 to EM.4D.

6.1 Penguin and Ecological Permits

Prior to the commencement of works, a penguin permit and ecological permit must be requested by the Construction Team. The following sections describe the general process for the permit.

As part of this process, a methodology must be provided by the construction team outlining what works are proposed (establishment, construction and disestablishment), whether any locations or works are excluded from the permit process, machinery proposed to be used, duration of works and any other relevant information. Once the information has been compiled, the Construction Team will send the permit to the Environmental Team for consideration.

Following the review of the methodology, the following outcomes are possible:

- Request further information.
- Approve the permit for a specified period and include conditions that must be adhered to. This may include requirements relating to:
 - Penguins.
 - Oystercatchers.
- Decline the permit and request that the additional controls are included prior to approval.

A permit register is maintained by the Project. This includes a record of the permits approved and in progress as well as the timeframes over which the permit has been approved.

The conditions of the permit are discussed as the pre-start meeting and all workers sign onto the crew briefing and thus the permit at the commencement of works for the day.

6.2 Measures to Avoid Adverse Effects on Kororā

Consent conditions EM.4 to EM.4C outline a range of measures that must be taken to ensure that the construction of the Project avoids any adverse effects on nesting or moulting kororā along the Eastern Bays coastline.

6.2.1 Pre-construction surveys

Consent condition EM.4A specifies that Construction Works carried out between the 1st of July and 31st of January inclusive (the kororā breeding season) shall not occur within 10 m of any active nesting or moulting site.

As Construction Works will occur all year round, a suitably qualified and/or experienced ecologist (hereafter referred to as the Project Ornithologist) shall be engaged to identify the presence and location of nesting and moulting kororā and adjacent to the Project footprint, prior to the commencement of construction. If practicable, specific areas of work may be programmed to avoid known locations of kororā habitat.

Should any changes to the timing of the kororā breeding season be noted during the lifetime of this consent, the Project Ornithologist shall notify HCC of this change, along with any recommended changes or updates required to this BPP as a result.

This survey work shall be carried out in a staged process as follows:

- Prior to the commencement of construction, the Project Ornithologist shall carry out a field survey to identify and map all areas within and adjacent to the project footprint that are likely to provide suitable habitat for nesting and moulting kororā.
- The Project Ornithologist shall also collate all pre-existing information on the locations of kororā nesting and moulting recorded within and adjacent to the project footprint.



- The Project Ornithologist shall prepare a report for the Consent Holder, which will include a set of maps delimiting suitable areas of nesting and moulting habitats within and adjacent to the project footprint, and the locations of any nesting or moulting sites that have been located. These maps shall form the survey areas for pre-construction surveys to be carried out immediately prior to the commencement of construction of each stage of the Project.
- On the morning of the commencement of construction of each stage of the Project, the Project Ornithologist, along with a DOC-certified kororā detector dog and handler, will undertake a survey to identify the presence of active penguin nesting and moulting sites within the suitable habitats previously mapped. All mapped habitats within the construction stage will be systematically surveyed by the detector dog, and all known, pre-existing nesting and moulting sites within each mapped habitat shall also be thoroughly checked. If a penguin is detected during the survey, a burrowscope or camera will be used to assist with identifying the burrow contents. The following information will be recorded for each kororā
 - Date and time of detection;
 - Location of kororā detection/s;
 - Whether the detection/s were made by a dog or person;
 - Presence of any sign (e.g. guano / feathers);
 - Presence and number of any birds (moulting or non-moulting); and
 - Presence and number of any eggs or chicks.

The location of each detection will be assigned a number which will serve as an individual identifier and marked (e.g. dazzle paint) to enable burrows to be monitored over time. The location/s will also be recorded and uploaded into the Te Ara Tupua GIS platform.

In the event that a nesting or moulting kororā are found during pre-construction surveys, an exclusion zone will be established as outlined in Section **Error! Reference source not found. Error! Reference source not found.**

- In the event that a kororā detection dog and handler is not available to undertake a survey at the required time, one of two alternative processes will be followed. Either:
 - Planned construction works shall be re-scheduled to be carried out as soon as a kororā detection dog survey can be carried out, or if this is not possible;
 - The Project Ornithologist shall carry out a manual survey of mapped kororā habitats within the works area, including using an inspection camera to carry out a thorough inspection of all potential or pre-existing nesting or moulting sites.

6.2.2 Penguin fencing during construction

In any construction area where kororā are detected during the pre-construction surveys (Section 6.2.1), penguin fencing will be erected avoid birds accessing the road during construction. Any such fencing will be implemented prior to construction works commencing, and will meet the following parameters:

- At least 0.5 m in total height;
- Prevent kororā from going under the fence (this may mean finding a way to bolt down / weigh down any fencing to there isn't a gap that birds can get under);
- Comprised of a suitable material that doesn't cause hazard to road users;
- Extend at least 20 m either side of the location of any detection.

This fencing will remain in place for the duration of construction at that location and be checked at the end of each day of works to ensure that there are no gaps for birds to access under.

6.2.3 Culverts

The Project Ornithologist must be present during any culvert inspection using CCTV equipment to observe any kororā sign (guano or birds) within the culvert and advise if any further protection measures are required based on the results of that inspection.

Should the pre-construction survey (Section 6.2.1) identify a positive dog detection at a culvert within an area where construction is to occur, a CCTV camera will be used prior to construction to determine the status of the burrow and subsequent management actions:





- If the CCTV camera confirms that no birds are present, access to the culvert will be blocked that day. Blocking culvert access may include the secure placement of mesh over the culvert outlet.
- If birds are confirmed to be present but not nesting or moulting, the use of the CCTV camera will be repeated each day until it is confirmed that no birds are present; at which point the culvert will be blocked that day.
- If birds are confirmed nesting or moulting, access between the culvert and the water will be maintained at all times. This may require the provision of some form of structure / ramp up to the culvert to ensure access. Examples of such structures are shown below; however, the Project Ornithologist will provide the design parameters for individual situations. Any such structure will be checked at the end of each construction day to ensure that access is maintained every night.
- Signage installed to ensure that the awareness of the use of the culvert by kororā is maintained.



Figure 6.1: Kororā access provided by rocks



Figure 6.2: Wooden ramp / stairs to allow kororā to access the culvert

6.2.4 Accidental discovery

In the event that either nesting or moulting penguins not detected during a pre-construction survey are subsequently discovered during Construction Works, workers on site shall follow the following procedure:

- All construction work occurring within 10 m of the nesting or moulting site shall cease immediately and an exclusion zone will be established as outlined in Section **Error! Reference source not found. Error! Reference source not found.**
- In all cases, the penguin shall be left in situ, and the Consent Holder and the Project Ornithologist shall be notified as soon as possible.
- As soon as possible after the discovery, the Project Ornithologist shall conduct an inspection of the nesting or moulting site and shall provide the Consent Holder with recommended measures for avoiding any further disturbance of the penguin(s) present.
- If the penguin is injured, workers shall immediately report the injured bird to the DOC via DOC's wildlife emergency hotline (0800 DOC HOT; 0800 362 468) and shall immediately notify the Consent Holder and the Project Ornithologist. Note, no attempt should be made to capture or handle a live penguin by anyone other than a suitably – experienced expert with a relevant Wildlife Act Authority.
- If the penguin is dead, workers on site shall collect the penguin and place it in a sealed plastic bag labelled with the date and time when the bird was collected, the location where it was found and the identity and contact details of the person who collected the bird. It should then be transferred to a refrigerator as soon as practically possible. THE SPECIMEN SHOULD NOT BE FROZEN. The Consent Holder and Project Ornithologist should be immediately notified of the find. The Consent Holder or Project Ornithologist will then notify the DOC and shall send the penguin to Massey University's Wildbase for post-mortem examination.

6.2.5 Establishment of nest exclusion zones

In the event that nesting or moulting kororā are found during pre-construction surveys, a 10 m exclusion zone shall be created around each nesting and moulting site, and no Construction Works shall occur within these exclusion zones, as long as penguins remain present. Exclusion zones may be marked using temporary fencing or markers, provided that any fencing or markers used does not impede kororā between the nesting or moulting site and the sea. kororā kororā. Following the installation of kororā exclusion fencing, these structures shall be inspected twice weekly for the duration of Construction Works. If this fencing is found to be damaged, it shall be reinstated within 24 hours of the inspection unless it is unreasonable given weather conditions in which case they must be reinstated as soon as reasonably practicable.

6.2.6 Kororā welfare monitoring

For the duration of Construction Works, any nesting or moulting penguins detected during pre-construction surveys (Section 6.2.1) or during the Constructions Works where works occur between 10 to 20 m of an active burrow (Section 6.2.4) shall be checked at least once per week by the Project Ornithologist.

These weekly checks shall assess and record the following:

- Whether each nesting or moulting site is still occupied or not;
- Nest contents and the outcome of any completed nesting attempts;
- Signs of damage or disturbance to nest or moult sites;
- Any other concerns about the health or welfare of any penguins present.

Should the Project Ornithologist have any concerns for the welfare of any penguins present within 10m of Construction Works, or that any of the above mentioned conditions or measures are not being met, the Project Ornithologist will have the full authorization from the Consent Holder to order that Construction Works cease until the issue identified has been rectified to their satisfaction.

The results of these surveys shall be summarised in weekly reports to the Consent Holder, together with any recommended changes to existing measures in place to avoid adverse effects of Construction Works on the penguins being monitored, and any recommended changes to the BPP. The results of this monitoring shall also be provided to the LPIG and to the Manager, Environmental Regulation within 1 month of completion.



6.3 Measures to Avoid Adverse Effects on Shoreline Foragers

Consent condition EM.4D outlines a range of measures that must be taken to ensure that the construction of the Project avoids any adverse effects on nesting Shoreline Foragers, including tōrea pango along the Tupua Horo Nuku coastline.

6.3.1 Pre-construction surveys

During the tōrea pango breeding season (September to March inclusive), surveys for nesting Shoreline Foragers shall be carried out by the Project Ornithologist no more than 10 days prior to the Commencement of Construction of any stage of the Project.

Each survey will include a systematic search of all areas of bare unvegetated rock, gravel and sand above MHWS for incubating birds or broods of chicks. Any adult tōrea pango displaying signs of breeding behaviour (aggressive or alarmed behaviours or distraction displays) shall be observed for up to one hour in order to locate nests or chicks.

The Project Ornithologist shall prepare a brief written report outlining the date and spatial extent of the survey, the surveyor's qualifications and relevant shorebird surveying experience, and the location and contents of any nest(s) or chick(s) found. The NZTM coordinates of any nests or broods of chicks found shall be recorded using a handheld GPS and shall be clearly marked on a site map included in the report. The report shall also include recommendations for the establishment of exclusion zones and any other measures deemed necessary to avoid disturbing nests or chicks during construction.

6.3.2 Establishment of nest exclusions zones and other measures

In the event that the nest of a Shoreline Forager is found during a pre-construction survey, the survey report shall contain advice on how Construction Works occurring within 100 m of the nest should be managed, including providing advice on the use of specific machinery, and outlining measures that must be taken to avoid disturbing the nest. Such measures will include:

- Avoiding, where possible, marking the location of the nest with conspicuous markers, as this will increase the risk of nests being disturbed by people, or depredated by avian predators.
- The establishment of an 100m exclusion zone around any nests found.
- Avoiding the use of noisy machinery or very bright lighting sources within 100 m of the nest, and minimizing foot traffic within 100 m of the nests (shorebirds are typically much more wary of pedestrians than they are of vehicles or machines)

If the tōrea pango nest located off the point between Sorrento Bay and Lowry Bay is confirmed by the Project Ornithologist to be occupied by a breeding pair or the presence of eggs or chicks, then during November no Construction Works shall occur within 100 m of the nest while it is so occupied. If the nest is so occupied at other times of the year, Construction Works within 100 m shall occur under the advice of a suitably qualified and experienced ecologist as to the use of specific machinery and specific minimisation measures and/or working practices.

If the tōrea pango nest located off the point between Sorrento Bay and Lowry Bay has resulted in chicks being hatched, then no Construction Works shall occur within the tōrea pango Managed Works Zone (delimited in Figure 6.3 below) shall occur within the months of December and January unless the Project Ornithologist has determined that the chicks have not survived or can fly. If non-flying tōrea pango chicks are present within the tōrea pango Managed Works zone during February, then Construction Works within the tōrea pango Managed Works Zone shall occur only if a suitably qualified and experienced ecologist determines that work with specific machinery and specific minimisation measures and/or working practices can proceed without endangering the chicks.

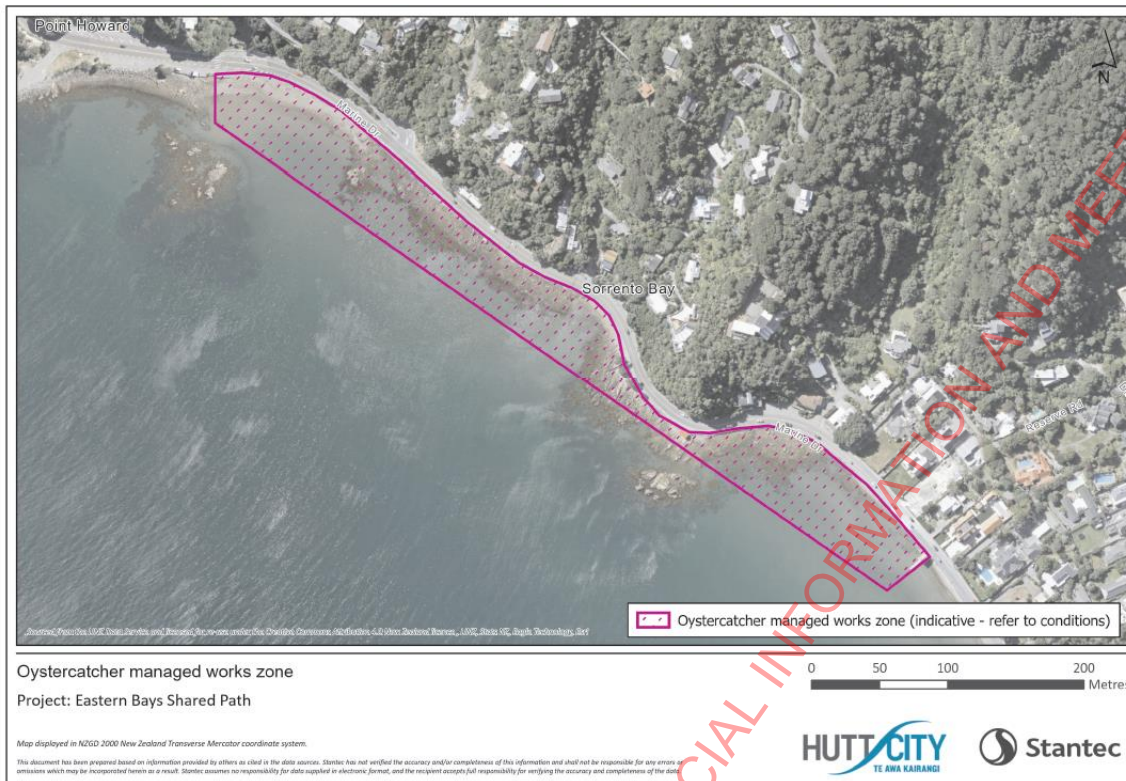


Figure 6.3 Extent of the Tōrea Pango / Variable Oystercatcher Managed Works Zone in Sorrento Bay



7 Pest Management Strategy

Consent conditions EM.3C(e) and EM.5 specify that the Consent Holder must implement a pest management strategy aimed at managing pest animals along sections of the Tupua Horo Nuku coastline that are affected by the Project Construction Works, and in the four BPAs being created in Sorrento Bay, Whiorau Park, Bishop Park and HW Shortt Park.

This pest management strategy will focus on reducing population densities of mammalian predators known to reduce the productivity of coastal bird species including kororā and tōrea pango, namely: European hedgehogs (*Erinaceus europaeus*), mustelids (*Mustela* spp.) and rats (*Rattus* spp.). These mammalian predators reduce the productivity of local coastal bird populations by depredating both eggs and chicks of nesting birds.

A key element of this pest management strategy will be to support the substantial amount of work that the local community conservation group MIRO has done since 2017 to engage local residents and MIRO volunteers to trap mammalian predators throughout the Eastbourne Bays, including along the Eastbourne Bays coastline.

Since 2017, MIRO member Sally Bain has led the ERAT (Educate Residents About Trapping) project to trap mammalian predators in suburban, urban and coastal habitats from Point Howard to Burdan's Gate. Carried out with support from both HCC and DOC, Sally has engaged residents throughout the Eastbourne Bays to create, service and maintain an approximately 80 x 80 m grid of traps throughout the entire ERAT project area with the aim of achieving sustainable predator control throughout residential areas of Eastbourne and in turn improving the survival of local populations of lizards and ground-nesting birds including kororā and banded dotterels (Figure 7.1). ERAT's trapping grid consists of several types of traps, including DOC200 traps, Victor rat traps and Goodnature A24 self-resetting traps. ERAT volunteers also conduct output monitoring three times per year, using an extensive network of tracking tunnels to monitor trends in the relative abundance of target mammalian predators (Figure 7.2).

MIRO's ERAT project represents one of the earliest examples of an intensive community-led mammalian predator trapping programme in a suburban habitat in the Wellington region, and by targeting hedgehogs, mustelids and rats throughout the Eastbourne Bays using best-practice trapping techniques, this project is already meeting the requirements of Consent Condition EM.5. For this reason, this pest management strategy will focus on using the \$60,000 of funding allocated to implementing this Consent Condition to support ERAT's ongoing efforts to trap predators throughout the Eastbourne Bays.

Note: Consent Condition EM.5 requires that this pest management strategy also outlines times and locations where litter may be an issue, and to include strategies describing how the Consent Holder will engage and educate the community on the presence of birds and the impacts of pests through signage and community outreach. In this Plan, the management of rubbish and waste is dealt with in Section 10. Details of signage to be installed within each of the BPAs are given in sections 9.2.3, 9.3.4, 9.4.4 and 9.5.4 and a community education campaign for avifauna is outlined in Section 11.

7.1 Eastern Bays Coastline Pest Management

To implement predator management along the Tupua Horo Nuku coastline between Ngau Matau (Point Howard) and Matua-Iwi Pa (Eastbourne) township, HCC shall enter into an agreement with MIRO to provide \$60,000 in funding to support MIRO's ERAT trapping programme, in exchange for a commitment from MIRO that the programme will continue for a minimum of 10 more years, and to provide HCC with an annual predator trapping and monitoring report.

MIRO's existing ca. 80 x 80 m grid of DOC200, Victor rat traps and Goodnature traps (Figure 7.1) is considered to be fit-for-purpose for reducing densities of hedgehogs, mustelids and rats on the Eastbourne Bays coastline. For example, an 80 x 80 m grid is consistent with the 50-300 m trap spacing typically used by GWRC to reduce densities of hedgehogs, mustelids and rats in Key Native Ecosystems throughout the Te Whanganui-a-Tara region. The types of traps being used are similarly fit-for-purpose for the mammalian predator species being targeted, and the baiting regime (monthly checks for non-self-resetting traps, and the use of Erayz™ and peanut butter baits) is also consistent with those employed by GWRC at sites elsewhere in the region. Another important feature of MIRO's ERAT project is that the trapping grid is relatively large, with traps not only distributed along the Eastern Bays coastline, but also in adjacent suburban and urban habitats.



MIRO also services an extensive network of traps in the adjacent Northern Forest of East Harbour Regional Park. This landscape-scale trapping network is likely to be significantly more effective at reducing local predator densities, and depredation rates on coastal-breeding shorebirds, than a single line of traps along the coastline would, given the multiple 'lines of defence' that these mobile mammalian predator species need to cross before they reach the coastline.

Consultation with both Sally Bain (outgoing ERAT project leader) and Terry Webb (MIRO Chairperson) have indicated that MIRO is willing to enter into an agreement with HCC to continue to deliver predator trapping services throughout the Eastern Bays in order to help HCC meet Consent Condition EM.5, in exchange for an additional \$60,000 grant from HCC. These funds will be used by MIRO to cover the costs of consumable items including bait, tracking tunnel cards and replacement traps. MIRO may also investigate the purchase of SmartTrap Econodes to increase the efficiency of ERAT's programme of trap checks. The agreement between HCC and MIRO could take the form of either an update to MIRO's existing Memorandum of Understanding with HCC, or a more formal Contract for Services. Such an agreement, at a minimum, should include the following clauses:

- That HCC shall provide a grant of \$60,000 to MIRO, paid in advance, to contribute towards the ongoing costs of MIRO's ERAT project.
- That MIRO will continue to work with the Eastbourne community to deliver mammalian predator trapping targeting hedgehogs, mustelids and rats, between Point Howard and Burdan's Gate, for a minimum period of 10 years.
- That MIRO will commit to servicing additional DOC200 traps and Victor rat traps installed at 50 m spacings within each of the four BPAs (see Section 7.2 below), and to service these traps fortnightly (rather than monthly) during the months of July to March inclusive.
- That MIRO will continue to maintain a grid of traps on an approximate 80 x 80 m grid throughout the ERAT project area, subject to landowner permissions
- Traps shall be baited with Erayz™ and/or peanut butter, or any other bait suitable for attracting target pest species recommended by GWRC.
- That MIRO will use the grant money to maintain and service the traps situated on along the Eastbourne coastline each year as a matter of priority. Provided that coastal traps are being maintained and serviced according to best practice, any remaining funds may be used to maintain and service traps situated away from the Eastbourne coastline.
- That MIRO will continue to keep an accurate record of trap locations and trap catch data.
- That MIRO will continue to use tracking tunnels to monitor trends in the relative abundance of mammalian predators in the Eastbourne Bays, and will conduct a minimum of two monitors per year with at least one of these monitors occurring between July and March (the combined kororā and tōrea pango breeding season).
- That MIRO shall provide HCC with an annual report by the 1st of October each year, including:
 - An update on the number and locations of traps serviced over the preceding 12 months.
 - A summary of the total number of mammalian predators caught during the preceding 12 months.
 - A summary of predator monitoring results over the previous 12 months.
 - A summary of how HCC grant monies have been spent during the preceding 12 months
- That MIRO and HCC agree that MIRO has full discretion to use HCC grant money as MIRO sees fit, provided that any goods or services purchased are consistent with achieving the deliverables mentioned above. Examples of goods or services that meet this criterion include:
 - The purchase of traps, trap components, trap markers, trap setting tools and baits
 - The purchase of tracking tunnels, tracking cards or tracking tunnel bait
 - The purchase of technological aids to improve the efficiency of MIRO's trap network, e.g., SmartTrap™ Econodes.
 - Engaging contractors to assist with coordinating volunteers, servicing and/or maintaining MIRO's trap network; to assist with predator monitoring or with data management and reporting.
- That HCC has the right to commission an independent audit of MIRO's trap network and trapping regime at any time, to ensure that it remains fit-for-purpose for implementing consent conditions EM.3C(e) and EM.5.



MIRO's annual report shall be forwarded by HCC onto the Manager, Environmental Regulation and shall be used by HCC to update this BPP on an as required basis.

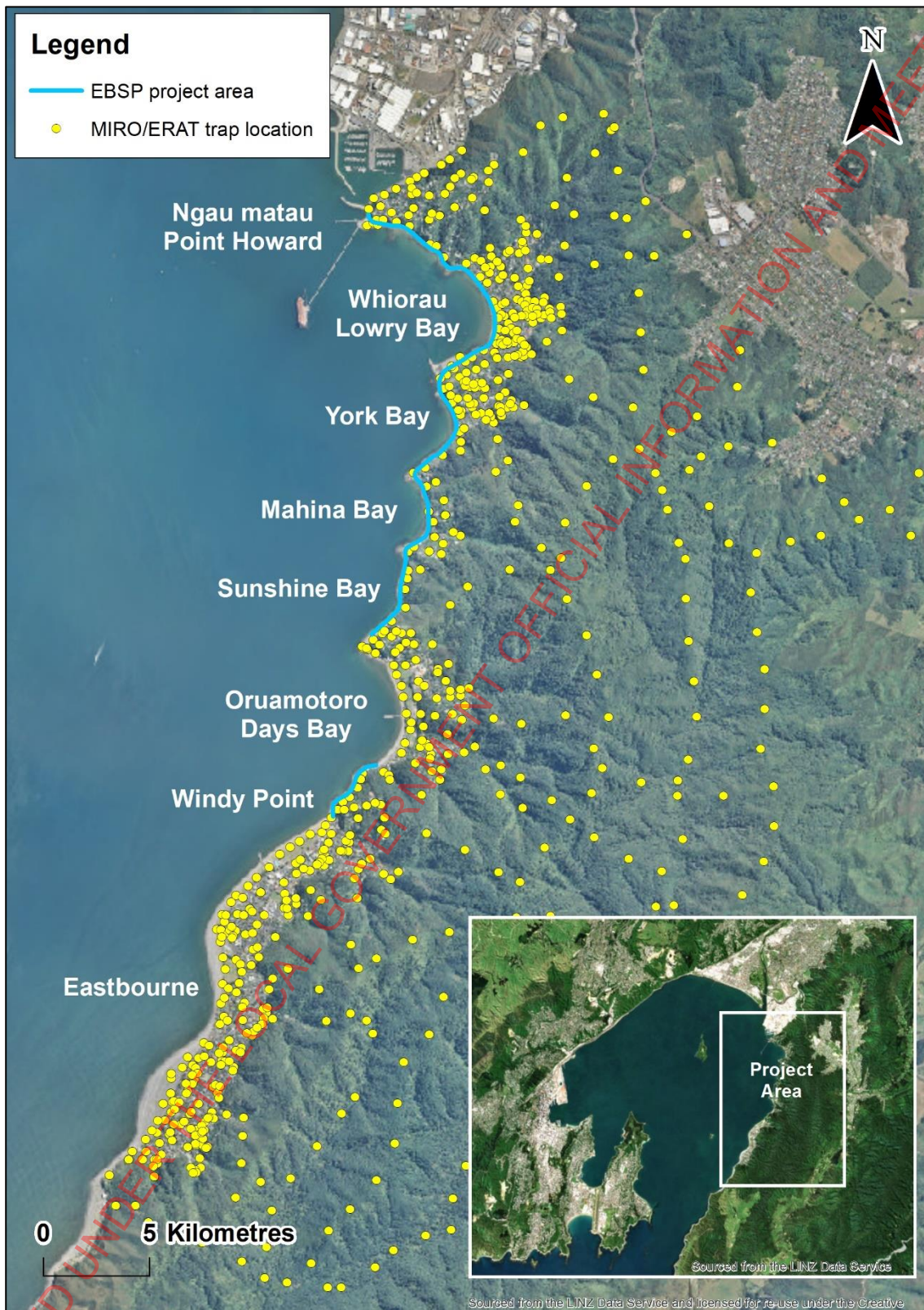


Figure 7.1 Map of the Eastern Bays coastline showing the layout of MIRO's ERAT and East Harbour Regional Park trap network. Data reproduced courtesy of MIRO.

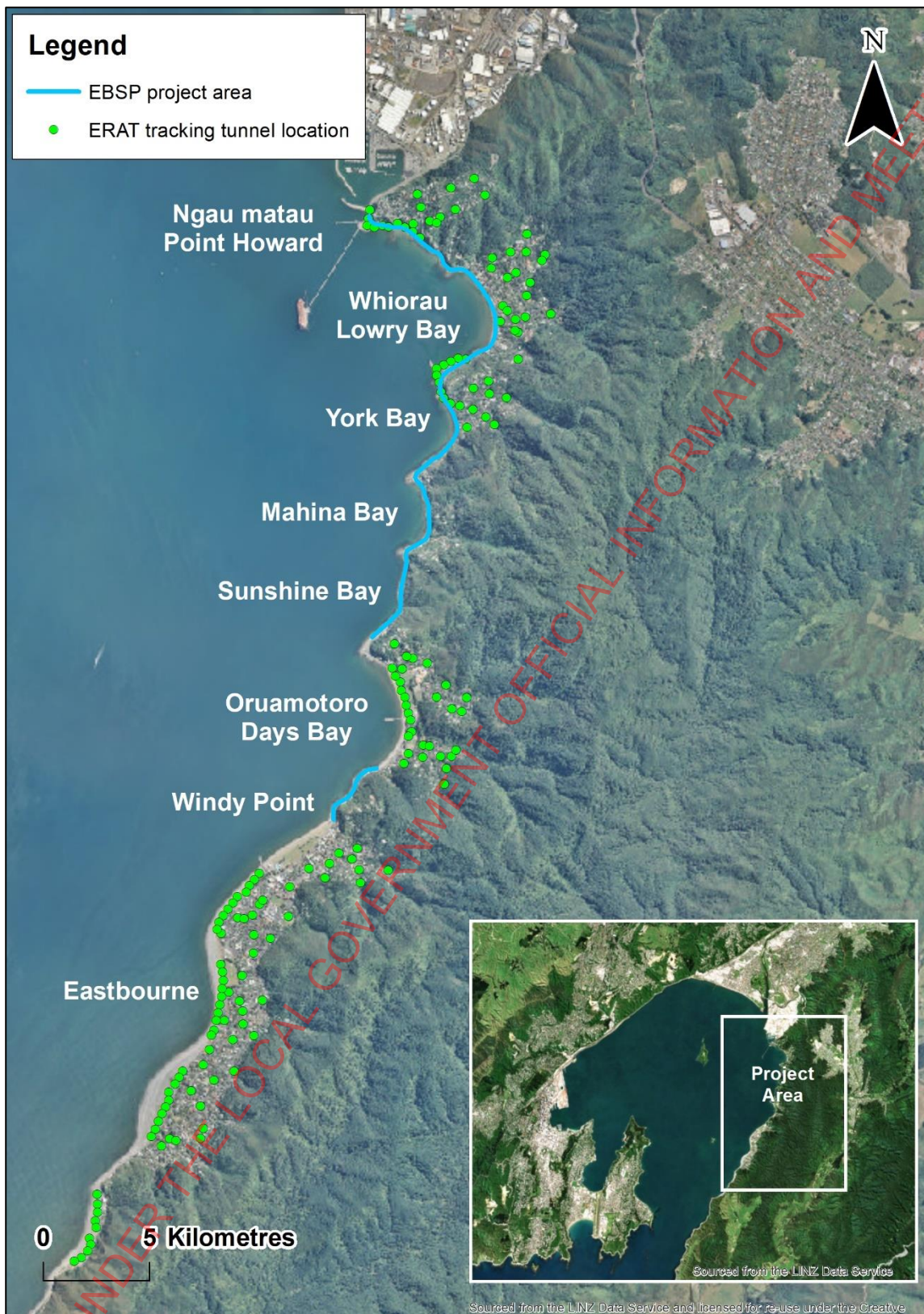


Figure 7.2 Map of the Eastern Bays coastline showing the layout of MIRO's ERAT tracking tunnel (predator monitoring) network. Data reproduced courtesy of MIRO.



7.2 Bird Protection Areas Pest Management

In addition to supporting MIRO's existing ERAT predator trapping project throughout the Tupua Horo Nuku Project, HCC will also use a portion of the funding allocated for the creation of the four BPAs to purchase additional DOC200 kill traps which will be installed in each of the four BPAs to reduce ERAT's current trap spacing of 80-100 m down to a 50 m spacing between traps within each BPA. For further details of the proposed layout and spacing of DOC200 traps within these BPAs, see Sections 9.2.2, 9.3.2, 9.4.2 and 9.5.2 below. These DOC200 traps will be installed, checked and maintained by MIRO volunteers, as part of MIRO's wider ERAT predator trapping programme.

These DOC200 traps will be serviced fortnightly between July and February inclusive (the combined kororā and Shoreline Forager breeding season) and baited with Erayz™ blocks (dried rabbit). All used bait and animal carcasses will be removed from the traps during each check and disposed of off-site, to avoid providing a supplementary food resource for mammalian and avian predators and scavengers. During the months of March and June inclusive (the combined kororā breeding season), trap checks shall be reduced to once per month.

Predator trapping within the BPAs shall in advance of the areas being used for the purpose of being a BPA and in accordance with the consent conditions.

In addition to the predator trapping within these BPAs, HCC will also engage with GWRC to investigate the need to, and practicality of, controlling rabbits within the Whiorau Reserve, Bishop Park and HW Shortt Park BPAs, to reduce damage and losses to native plantings caused by browsing rabbits. Potential control options include night shooting and/or poisoning, however given current public usage of these sites, and the proximity of these sites to suburban areas it is recognized that the implementation of rabbit control measures may be difficult or impossible to achieve.

Any outcomes from reporting on the success of the Pest Management Strategy shall be applied, as appropriate, to future pest management by revising the Pest Management Strategy so that over time processes and responses to minimise effects on coastal avifauna as a result of pest animals are refined and improved.



8 Shared pathway design features

8.1 Seawall

The seawall and rock revetment is designed to protect against coastal erosion but the design also assists in restricting road access for kororā. Vertical curved seawalls have been chosen across most of the Project length because they deflect wave overtopping most effectively and create a reduced footprint on the foreshore compared to other non-vertical seawalls. The vertical curved seawalls are shown on **Error! Reference source not found..**

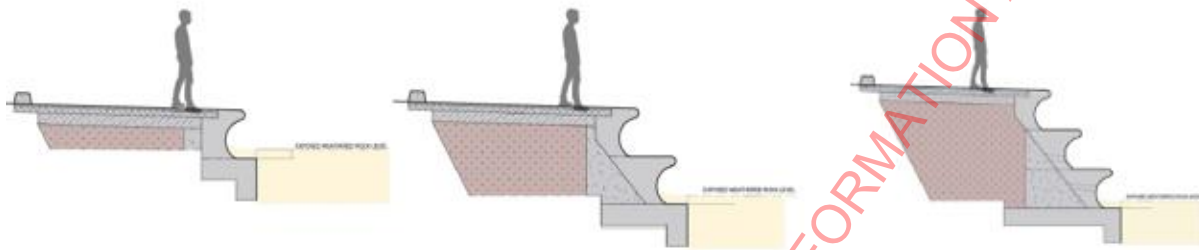


Figure 8.1: Vertical curved seawalls

8.2 Revetment

Revetment has been used in several locations within the project scope (Mahina Bay and York Bay). The revetment structure is likely to consist of a top double layer of large rocks, average diameter 500mm overlaid onto smaller rocks; an example of the revetment is visible on **Figure 8.2**. Most of this is due for replacement, so it is important any new structures are integrated with the receiving environment.

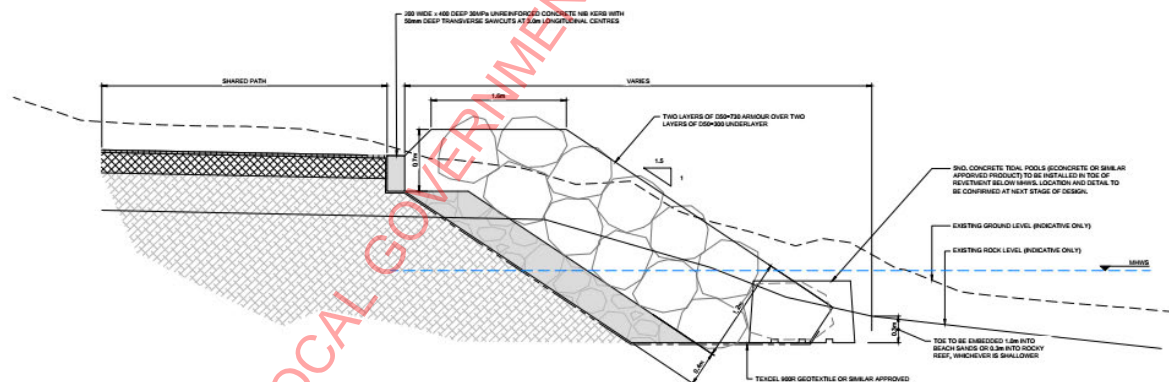


Figure 8.2 Revetment

8.2.1 Tidal Pools

Figure 8.2 shows a cross section of the rock revetment which includes tidal pools. An example of the tidal pools, as taken from the Seawall Revetment Habitat Plan (SRHP) is provided in **Figure 8.3** as shown, the tidal pools will not be located along the entire length of the revetment, but rather spaced intermittently along it. Thus, penguin access will be at the very least maintained in sections of the revetment not containing the tidal pools.



Figure 8.3. Example of tidal pools

8.2.2 Keyholes

There can be opportunities for kororā to nest and moult in 'key-holes' in the revetment. Key-holes will be incorporated into the final design of the revetment prior to issuing the final design drawings. Keyholes in the revetment will include the following characteristics⁷:

- A roof. This will provide shelter, direct shelter to eggs and chicks and will reduce the visibility of nests to predators.
- A tight and small entrance. This needs to be suitable to allow penguins to enter as well as reduce the potential for predators to enter the key-hole.
- The keyholes will be located generally to avoid high tides, storm surges and wave splash.
- A flat bottom.
- A mechanism to access the key-hole if it needs to be cleaned out by the birds.
- A drainage hole.

The proposed key-hole design is shown on Figure 8.4.

The spacing of key holes will be agreed on site between the Project Ornithologists, DOC and GWRC's technical expert.

⁷ Woehler, E.J. (2015). Penguins in the Void: Proposal for Creation of Little Penguin Breeding Habitat, The Neck, Bruny Island', Report to Department of State Growth, prepared by BirdLife Tasmania, Hobart, Tasmania.

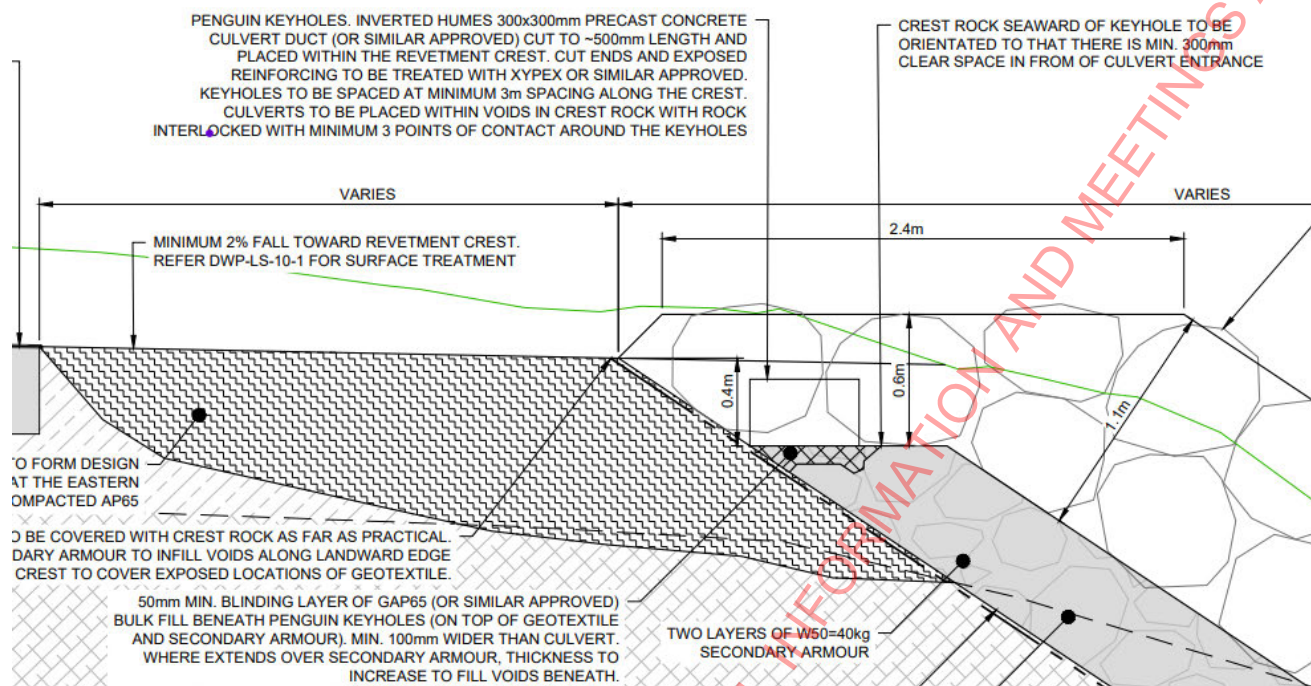


Figure 8.4. Key hole detail in the revetment

8.2.3 Fencing

In situations where rock revetment is used, to restrict road access for kororā, fencing will be incorporated into the design. The following features will be included in the fencing design:

- Constructed at ground level so as there are no gaps under which kororā can access under.
- Be vertical and at least 40 cm high.
- Tie into the edges of the seawall so that access to the road cannot be achieved by kororā walking further along the coastal side of the fence.

Fencing detail is shown on Figure 8.5 and Figure 8.6.

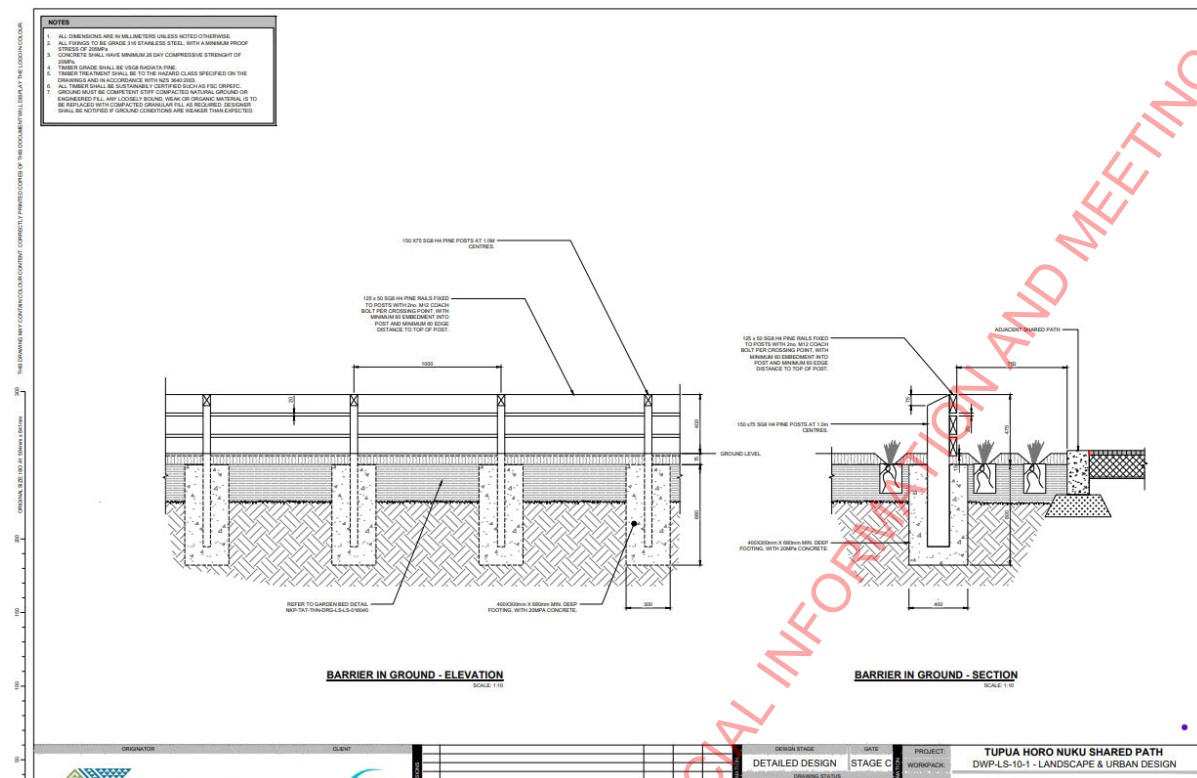


Figure 8.5. Revetment fencing detail

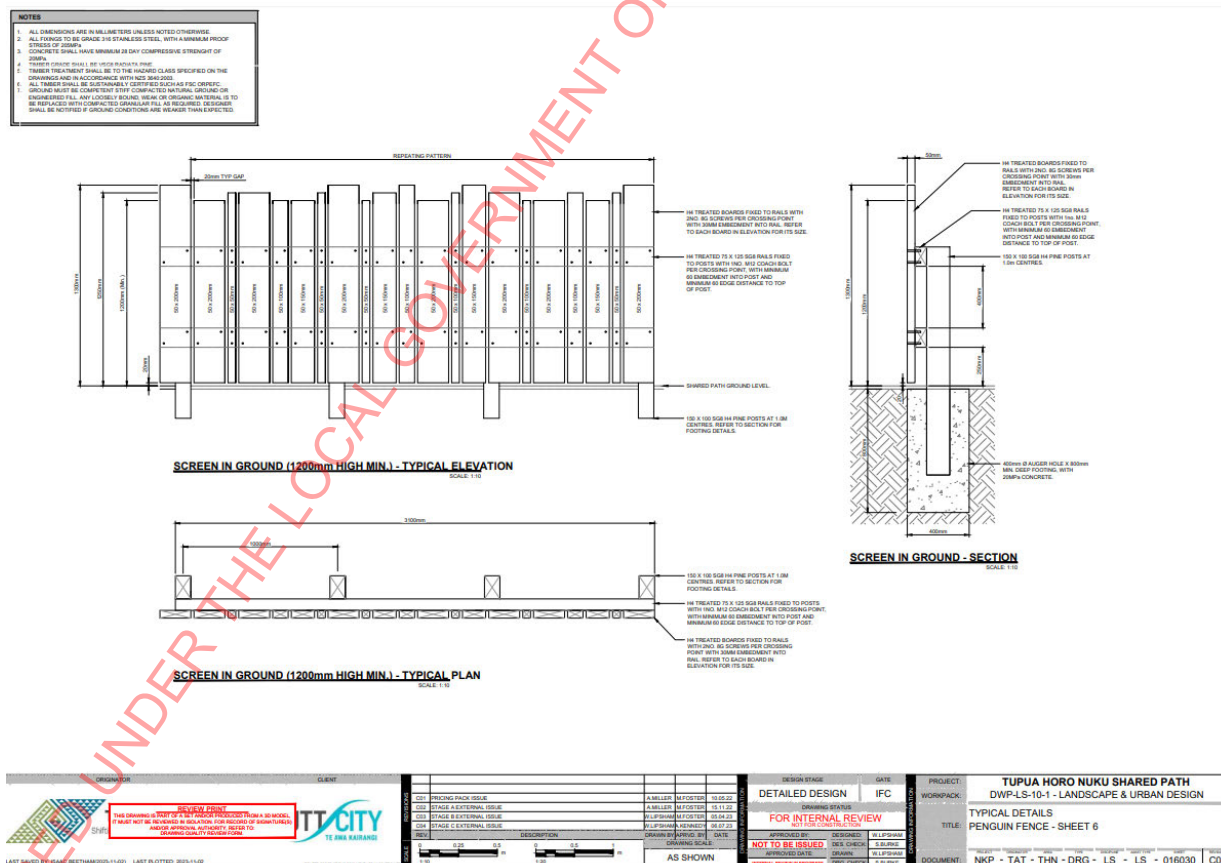


Figure 8.6. Roadside fence around Whiorau Reserve

8.3 Culvert Design

At culverts where kororā detections were recorded during the pre-construction surveys (Section 6.2.1 above), the permanent design will include the ability for birds to have ongoing access through the culverts. Further information will be provided on this matter once the design has been confirmed.

8.4 Nesting opportunities

A key component of the BPAs is the provision of nesting opportunities. As part of the design process the length of seawall was increased and the length of rock revetment reduced. This change was documented in an IGA process. The outcome of this is summarised as follows.

The substitution of revetment with seawall will reduce the kororā nesting opportunities that would have been provided in the proposed revetment at Ngau Matua, York Bay, Mahina Bay and Sunshine Bay. To mitigate this loss, additional nesting habitat will be provided to account for the loss of these opportunities. Based on 3 m spacings (an average distance between kororā nests), it is assumed that the 343 m of revetment may have provided nesting opportunities for approximately 114 kororā burrows. On that basis, it is proposed to include an additional 114 kororā nest boxes within the three existing Bird Protection Areas at HW Shortt Park, CL Bishop Park and Whiorau Reserve. For the avoidance of doubt, the 114 kororā nest boxes is in addition to the 110 boxes that will be established in accordance with the BPP at the BPAs.

The opportunity for kororā to nest within revetment will be retained at York Bay and Mahina Bay south. At these locations, fencing will be incorporated into the design to prevent kororā from being able to cross the road. The fencing will be designed with the following features:

- *Constructed to ground level so there are no gaps under which kororā can access under;*
- *Be vertical and at least 40 cm high;*
- *Tie into the edges of the seawall so that access to the road cannot be achieved by kororā walking further along the fence.*

A record of all nesting opportunities created to ensure at least 224 nesting opportunities are created. The nesting opportunities will be as the detailed design for each BPA and locations agreed with DOC and GWRC.

The location of boxes is decided on site in collaboration between the Project Ornithologist and the DOC and GWRC technical advisors. At this site meeting the security requirements for individual boxes will be specified.



9 Bird Protection Areas

9.1 Overview

As stated in consent condition EM.6:

The Consent Holder shall establish, utilising the up to \$300,000 allocated in Condition EM.1, BPAs at the following indicative locations:

- (a) an oystercatcher protection area at Sorrento Bay (Condition EM.6B);
- (b) a penguin protection area at Whiorau Reserve (Condition EM.6C); and
- (c) penguin and shorebird protection areas at:
 - i. Bishop Park (Condition EM.6D); and
 - ii. HW Shortt Park (Condition EM.6E).

This section of the report provides detailed landscape designs for each of these four BPAs, in order to give effect to consent conditions EM.6 – EM.6E. Figure 9.1 provides a locality map showing the location of each of these four BPAs along the coastline.

It should be noted that the spatial extent of each of the BPAs included in this Plan deviate from that shown in the resource consent conditions. Following further detailed investigations, the proposal as outlined in this Plan is considered appropriate and meets the intent of the consent conditions.

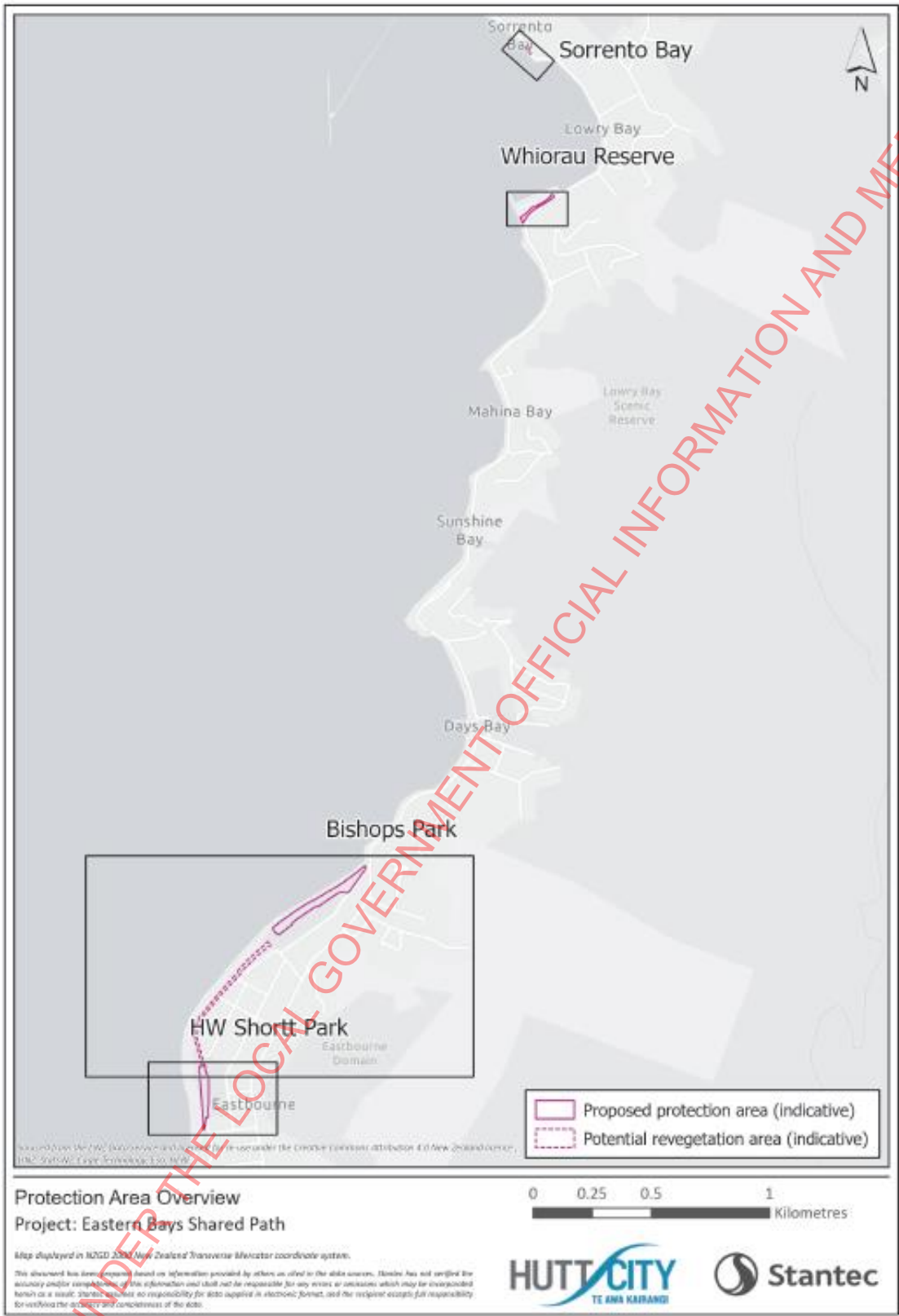


Figure 9.1 Map showing the locations of the four Bird Protection Areas included in this Plan



9.2 Sorrento Bay Bird Protection Area

The Sorrento Bay BPA includes an area of 200 m² of rocky foreshore that has been identified as being a known breeding site for at least one pair of tōrea pango. Specific elements included in the design of this BPA include:

- A fence designed to exclude dogs from the rocky foreshore and to screen breeding tōrea pango and their young from people using the shared path.
- Predator traps designed to target key predators of tōrea pango, namely mustelids, hedgehogs and rats.
- Interpretation panels and warning signage, informing the public of the presence of nesting birds and providing information on key elements of the birds' biology, life cycle and threats.

Further details on the design and layout of these design elements are described in the sections below, and a landscape design for the Sorrento Bay BPA can be found in Figure 9.5.

9.2.1 Screen fence

A screening fence shall be constructed along the seaward edge of the shared path to create a physical barrier to prevent dogs and people from accessing the rocky foreshore, and to reduce levels of human disturbance by screening nesting tōrea pango from people using the shared pathway. The screening fence will be approximately 100 m long and will be constructed from timber in keeping with the urban design theme proposed for the shared path (refer to the LUDP and to the example in Figure 9.2 below). The height of the fence shall be 1.2 m at either end, tapering up to a maximum of 1.8 m in height for the central 50 m portion that is adjacent to the tōrea pango nest site. The fence will also be angled slightly away from the shared path to avoid creating a hazard for cyclists and will incorporate small peepholes or gaps to enable path users to view the foreshore without disturbing the nesting tōrea pango. The gaps will be sufficiently spaced together to ensure that kororā are unable to fit through. As shown in Figure 9.2, the upper portion of the fence shall consist of large dimension timber verticals with 100 mm spacings to allow light to filter through the fence onto the shared path.

The screening fence shall be constructed within three months of the commencement of works along this section of the Project.



Figure 9.2 Example of the proposed design for the BPA timber fencing (reproduced from the Landscape and Urban Design Plan).



9.2.2 Predator trapping

DOC200 kill traps shall be installed at 50 m intervals along the seaward side of the screening fence as part of the Eastern Bays Shared Pathway Pest Management Strategy. These DOC200 traps will be installed, checked and maintained by MIRO volunteers, as part of MIRO's wider ERAT predator trapping programme.

These DOC200 traps will be serviced fortnightly between July and February inclusive, and baited with Erayz™ blocks (dried rabbit). All used bait and animal carcasses will be removed from the traps during each check and disposed of off-site, to avoid providing a supplementary food resource for mammalian and avian predators and scavengers. During the months of March and June inclusive, trap checks shall be reduced to once per month.

Predator trapping shall be implemented within three months of the commencement of works along this section of the Project. A more detailed description of the Eastern Bays Pest Management Strategy can be found in Section 7 of this plan.

9.2.3 Signage

Interpretation panels and warning signage shall be installed at a number of locations within the Sorrento Bay BPA.

Interpretations panels shall be installed at either end of the screening fence, providing information on the lifecycle and habitat requirements of tōrea pango, the threats that they face and information on how shared path users can minimise their impact on the tōrea pango nesting in Sorrento Bay. The interpretation panels will be constructed from timber in keeping with the urban design theme proposed for the shared path (refer to the LUDP and to the example in Figure 9.3 below) and content of these panels will be developed in consultation with the LPIG and MWSG and will include design elements contributed by local students participating in the public education campaign for avifauna described in Section 11 of this plan.

Smaller warning signs shall be affixed to the shared pathway side of the screening fence at approximately 50 m intervals along the entire length of the fence. These warning signs shall notify shared path users that the rocky foreshore beyond the fence provides nesting habitat for tōrea pango, and request that shared path users do not venture onto the rocky foreshore between the months of August and February inclusive. The specific content of these signs will be developed in consultation with the LPIG and MWSG and will include design elements contributed by local students participating in the public education campaign for avifauna described in Section 11 of this plan. An example design for a small warning sign is provided in Figure 9.4 below.

Interpretation panels and warning signage shall be installed within three months of the commencement of works along this section of the Project.

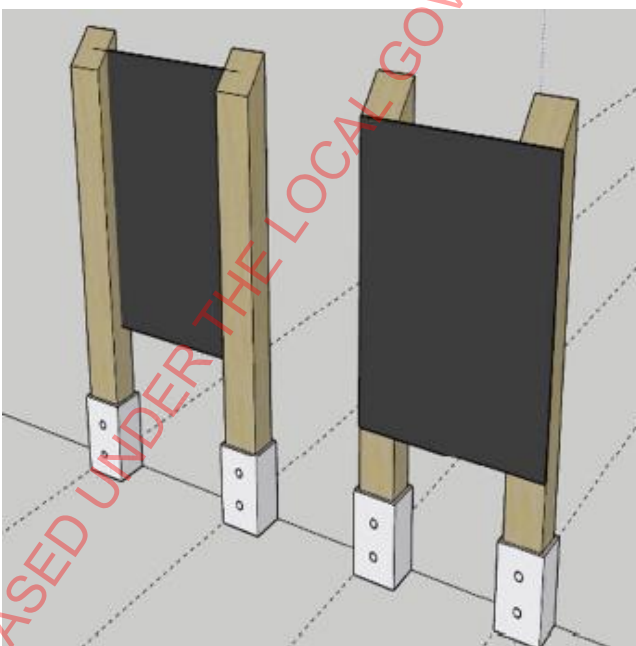


Figure 9.3 Proposed design for the Sorrento Bay BPA interpretation panels



Figure 9.4 Example design for the Sorrento Bay BPA warning signage

9.2.4 Rāhui

Taranaki Whānui ki Te Upoko o Te Ika have been collaborating for a number of years with both MIRO and GWRC to manage breeding populations of tūturiwhatu / banded dotterels (*Charadrius bicinctus*) at the Parangarahu Lakes block. As part of a new 5-year banded dotterel management strategy for the Eastbourne coastline, Taranaki Whānui have committed to placing a rāhui on dotterel nesting areas at Robinson Bay, the Parangarahu Lakes and at Baring Head for the duration of the dotterel nesting season, as a measure to help reduce levels of human disturbance on nesting birds. Each August, Taranaki Whānui kaumatua visit these nesting areas to place the rāhui on these sites, and both MIRO and GWRC work together to erect temporary fencing and signage to delimit the areas covered by the rāhui, and to inform beach users on what they need to do to respect the rāhui. Each January or February, Taranaki Whānui kaumatua again visit these sites to lift the rāhui and GWRC and MIRO remove the signage and fencing, so that beach users can use these areas of beach during the autumn and winter months when the birds aren't breeding.

The tōrea pango that nest within the Sorrento Bay BPA have virtually the same breeding season as tūturiwhatu / banded dotterels (August – February), so an opportunity exists for Taranaki Whānui to include the Sorrento Bay BPA in their annual rāhui, to help reduce levels of human disturbance to nesting tōrea pango, and to help raise community awareness of their presence. Adding the Sorrento Bay BPA to Taranaki Whānui's annual programme of shorebird rāhui along the Eastbourne – Wainuiomata coastline would also create a strong linkage between Taranaki Whānui's banded dotterel management programme, and the Project, both of which seek to maintain shorebird values along this coastline.

9.2.5 Vegetation management

Tōrea pango require unvegetated rock, sand or shingle substrates for nesting and tend to avoid heavily vegetated habitats. For this reason, there are no plans to create additional plantings on the existing rocky foreshore within this BPA. Instead, some selective weeding shall be carried out as required, to remove any introduced and naturalized herbaceous or woody plants that have the potential to encroach on tōrea pango nesting habitat. This weed control work shall be carried out by a suitably experienced and qualified contractor, and no plants that are native to the Tararua Ecological District shall be removed.

9.2.6 Sea level rise response and resilience

The Intergovernmental Panel on Climate Change Fifth Assessment Report estimates that global mean sea levels will rise by up to 0.98 m above current levels by the year 2100, assuming unmitigated growth in carbon emissions over that time. However, a more recent survey of climate scientists has estimated that global mean sea levels could rise by up to 1.32 m over the same period. During the 35-year term of this consent, the extent of sea-level rise along the Eastbourne coastline is likely to be considerably less than that forecasted for 2100, although the precise extent to which sea levels will rise over this 35-year timeframe is still uncertain.

The Sorrento Bay BPA has relatively low resilience to sea-level rise due to the low-lying nature of the shoreline, the relatively narrow intertidal zone and the 'hard edge' created by Marine Drive and the shared pathway. At present, little can be done to improve the resilience of this shoreline to future sea-level rise, so the threat posed by rising sea-levels will instead be mitigated in two ways:

1. **Retreat:** Should the existing tōrea pango nesting habitat within Sorrento Bay become threatened by seawater inundation or flooding, the Consent Holder shall investigate options to re-create an equivalent area of nesting habitat further inland or on higher ground within Sorrento Bay.
3. **Repatriation:** Should the entire Sorrento Bay BPA become unsuitable as nesting habitat for tōrea pango as a consequence of sea-level rise, the Consent Holder shall work with the relevant authorities including DOC and GWRC, and the LPIG, to investigate options to create an equivalent area of nesting habitat, or to improve the quality of an existing area of nesting habitat, at a more suitable site within Wellington Harbour. Given that tōrea pango are highly mobile, it is anticipated that any birds breeding within the Sorrento Bay BPA will disperse to other breeding sites within Wellington Harbour and beyond, should the nesting habitat within Sorrento Bay become unsuitable.

9.2.7 Maintenance

The Consent Holder shall carry out the following annual maintenance plan within the Sorrento Bay BPA:

- **Maintenance of fencing and signage:** The Consent Holder shall carry out an annual inspection of fencing and signage associated with the BPA and shall repair or replace any damaged or missing fencing and signage. This annual check shall be carried out between March and July each year to avoid the risk of disturbing nesting tōrea pango. In addition to this, the Consent Holder shall respond to any reports of damaged or missing fencing and signage received from members of the public as required and shall carry out repairs or replacements as soon as practical following reports of damage.
- **Predator trap servicing and maintenance:** MIRO volunteers shall carry out the annual programme of DOC200 trap checks as described in Section 7 of this Plan. In addition, MIRO shall be responsible for carrying out trap maintenance, repairs and replacement on an 'as needed' basis.
- **Vegetation management:** The Consent Holder shall engage a suitably experienced contractor to carry out an annual check for weeds on the Sorrento Bay foreshore adjacent to the screening fence and will control any herbaceous or woody weeds found using either herbicide or hand-pulling. Key weed species to check for include horned poppy (*Glaucium flavum*), holly-leaved senecio (*Senecio glastifolius*), pōhutukawa (*Metrosideros excelusum*), karo (*Pittosporum crassifolium*), boneseed (*Chrysanthemoides monilifera*) and lupin (*Lupinus arboreus*). This annual check shall be carried out between March and July each year, to avoid the risk of disturbing nesting tōrea pango.

This dedicated maintenance programme shall continue for five years following the construction of this BPA, after which these maintenance tasks shall be amalgamated into HCC's Parks and Reserves maintenance programme and shall be continued for a minimum of 30 further years, ensuring that the maintenance of this BPA continues for the 35-year term of this consent.

9.2.8 Timeframe for Construction

The construction of the shared path at Sorrento Bay (and Ngau Matau) is currently programmed to be constructed in 2024. Interim protection measures will be implemented prior to the construction of the permanent screening fence and associated interpretation and warning signage. For example, measures will be taken to ensure that adverse impacts on nesting tōrea pango are avoided during the construction of the Project, and these measures are outlined in Section 6.2 of this Plan.

9.3 Whiorau Reserve Bird Protection Area

The area as shown on Figure 9.11 at Whiorau Reserve will be developed as kororā nesting habitat. The area already accommodates kororā nest sites. Specific elements included in the design of this BPA include:

- A 1.2 m fence along the seaward side of the shared path and Marine Drive, to prevent dogs on the shared path wandering into the kororā nesting habitat, and to prevent kororā from wondering through Whiorau Reserve and onto the shared path and Marine Drive after dark.
- A suspended rope barrier and associated warning signage around the perimeter of the constructed kororā nesting habitat within Whiorau Reserve, to reduce the risk of dogs and people venturing into the nesting habitat while allowing kororā unimpeded access.
- Predator traps designed to target key predators of kororā namely mustelids, hedgehogs and rats.
- A planting plan for the kororā nesting area, designed to create a low canopy of native coastal shrubs to provide shelter and cover to nesting kororā.
- Interpretation panels informing the public of the presence of nesting kororā providing information on key elements of the birds' biology, life cycle and threats.
- The installation of up to 53 kororā artificial nest boxes, arranged in clusters according to the topography and planting.

Further details on the design and layout of each of these elements are described in the sections below, and a landscape design for the Whiorau Reserve BPA can be found in Figure 9.11.

9.3.1 Fencing

A screening fence shall be constructed along the seaward side of the shared pathway and Marine Drive along the entire length of Whiorau Reserve to create a physical barrier to prevent dogs being walked along the shared path from venturing into the kororā nesting habitat, and to prevent kororā wondering through Whiorau Reserve and onto the shared path and Marine Drive after dark (Figure 9.11). The screening fence shall be approximately 230 m long and 1.2 m in height and will be constructed from timber in keeping with the urban design theme proposed for the shared path (refer to the Landscape and Urban Design Plan (LUDP)). The screening fence shall be constructed within 18 months of the commencement of works along this section of the Project but is recommended to be installed as soon as practically possible.

A suspended rope barrier will also be constructed around the entire perimeter of the kororā nesting habitat to reduce the risk of dogs and people venturing into the nesting habitat while allowing kororā unimpeded access at night (Figure 9.6). The rope barrier will have an approximate total length of 500 m and shall consist of a single rope suspended between wooden bollards, with the lowest point of the rope no less than 40 cm off the ground to ensure unimpeded access for kororā after dark. Warning signs be affixed to rope barrier bollards at approximately 50 m intervals around the entire perimeter of the rope barrier. These warning signs shall notify park users that the area within the rope barrier provides nesting habitat for kororā and will request that people and dogs stay out of this nesting area to avoid disturbing breeding penguins kororā. The specific content of these signs will be developed in consultation with the LPIG, Mana Whenua and will include design elements contributed by local students participating in the public education campaign for avifauna described in Section 11 of this plan. An example design for a kororā warning sign. The rope barrier and associated warning signage shall be constructed within 18 months of the commencement of works along this section of the Project but is recommended to be installed as soon as practically possible.



Figure 9.6 Example design for rope barrier around the perimeter of the Whiorau Reserve kororā nesting habitat.



Figure 9.7 Example design for the Whiorau Reserve BPA kororā nesting signage

9.3.2 Pest Control

DOC200 kill traps shall be spaced at 50 m intervals along the seaward side of the fence between the shared path and Whiorau Reserve, and at 50 m intervals around the perimeter of the kororā nesting habitat, as part of the Eastern Bays Shared Path Predator Management Strategy. The design of these DOC200 traps shall be reviewed by the LPIG and GWRC Biosecurity Department staff, to ensure the design used minimises the risk of the non-target capture of kororā. These DOC200 traps will be installed, checked and maintained by MIRO volunteers, as part of MIRO's wider ERAT predator trapping programme.

These DOC200 traps will be serviced fortnightly between July and February inclusive, and baited with Erayz™ blocks (dried rabbit). All used bait and animal carcasses will be removed from the traps during each check and

disposed of off-site, to avoid providing a supplementary food resource for mammalian and avian predators and scavengers. During the months of March and June inclusive, trap checks shall be reduced to once per month.

In accordance with the consent conditions, trapping will be implemented within 18 months of the commencement of works along this section of the Project (EM.6C(h)).

Project). A more detailed description of the Eastern Bays Predator Management Strategy can be found in Section 7 of this plan.

In addition to the predator trapping within this BPA, HCC will also engage with GWRC to investigate the need to, and practicality of, controlling rabbits within Whiorau Reserve, to reduce damage and losses to native plantings caused by browsing rabbits. Potential control options include night shooting and/or poisoning, however given current public usage of this site, and the proximity of these sites to suburban areas it is recognized that the implementation of rabbit control measures may be difficult or impossible to achieve.

9.3.3 Planting plan

A programme of planting shall be carried out to create suitable habitat for nesting kororā within the kororā nesting habitat. A relatively small number of plant species native to the Tararua Ecological District shall be planted within the kororā habitat with the aim of quickly creating a coastal shrubland community with sufficient canopy cover to provide cover and shelter for nesting penguins (see examples in Figures 8-8 and 8-9 below, and the planting plan in Table 9.1 below).

Key plant species that will be used to create the structure of this coastal shrubland include taupata (*Coprosma repens*), mingimingi (*Coprosma propinqua*), knobby club-rush (*Ficinia nodosa*), and silver tussock (*Poa cita*). Once this structural planting has been completed, infill planting of a wider range of species will then be carried out, including *Poa billardierei*, *Carex pumila*, *Melicytus orarius*, *Muehlenbeckia complexa* and *Phormium cookianum*. All plants will be propagated from seed collected from within the Tararua Ecological District. Biodegradable plant protectors shall be placed around all plant species known to be palatable to rabbits, including both taupata and knobby club rush – two plant species that were heavily browsed during the establishment of the Day's Bay Penguin Haven.

This planting plan will be implemented as soon as practically possible, to allow sufficient time for plantings to mature prior to the installation of kororā artificial nest boxes.

Existing canopy trees and shrubs within the boundaries of the proposed kororā nesting habitat shall be retained in the short to medium term, as they provide shelter and cover for a small number of existing kororā burrows. Once the new plantings have matured to the point of providing effective cover, shelter and shade to the kororā burrows and newly installed nest boxes, HCC will investigate feasibility and community support for removing and replacing the canopy-sized pōhutukawa trees with tree species that are native to the Ecological District.

The planting plan will be finalised once the arrangement of nest boxes is confirmed.



Table 9.1 Indicative planting plan for the Whiorau Reserve Kororā habitat

Backdune & Kororā Habitat						
Botanical Name	Common Name	Size		Spacing (mm)	% of Mix	Quantity
<i>Apodasmia similis</i>	Oioi	RT / RX90		300	6%	2065
<i>Carex pumila</i>	Sand sedge	RT / RX90		300	5%	1721
<i>Coprosma acerosa</i>	Sand coprosma	RT / RX90		500	4%	496
<i>Coprosma propinqua</i>	Mingimingi	RT / RX90		500	10%	1238
<i>Coprosma repens</i>	Taupata	RT / RX90		500	20%	2478
<i>Euphorbia glauca</i>	Waiu-atua	RT / RX90		500	2%	247
<i>Ficinia nodosa</i>	Wiwi	RT / RX90		300	14%	4818
<i>Melicytus orarius</i>		RT / RX90		500	1%	124
<i>Muehlenbeckia complexa</i>	Small leaved pohuehue	RT / RX90		500	5%	619
<i>Olearia solandri</i>	Coastal tree daisy	RT / RX90		500	2%	247
<i>Ozothamnus leptophyllus</i>	Tauhinu	RT / RX90		500	2%	247
<i>Phormium cookianum</i>	Wharariki	RT / RX90		500	5%	619
<i>Phormium tenax</i>	Harakeke, NZ flax	RT / RX90		500	2%	247
<i>Poa billardiarei</i>	Hinarepe	RT / RX90		300	6%	2065
<i>Poa cita</i>	Silver tussock	RT / RX90		300	16%	5505
Total		3112	m²		100%	22738

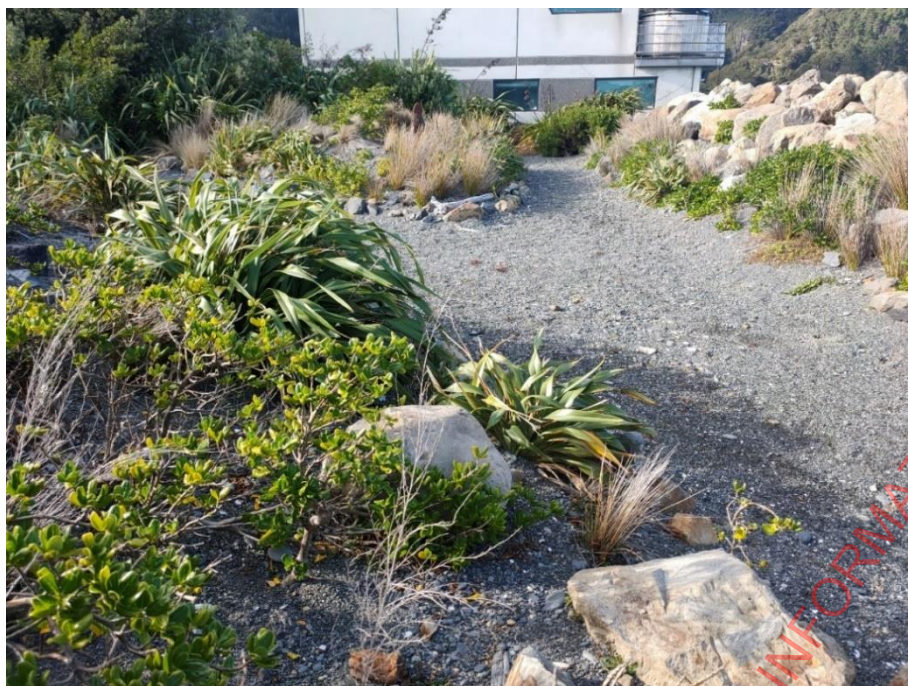


Figure 9.8 Planting plan for the Whiorau Reserve Kororā habitat



Figure 9.9 Planting plan for the Whiorau Reserve Kororā habitat



9.3.4 Signage

Interpretation panels and warning signage shall be installed on and near the perimeter of the kororā nesting habitat within Whiorau Reserve.

Interpretation panels shall be installed at both the western and eastern ends of the kororā nesting habitat, close to the rope barrier. These interpretation panels will provide information on the lifecycle and habitat requirements of kororā, the threats that they face and information on how park users can minimise their impact on kororā nesting in this site. The interpretation panels will be constructed from timber in keeping with the urban design theme proposed for the shared path (refer to the LUDP)) and content of these panels will be developed in consultation with LPIG and Mana Whenua and will include design elements contributed by local students participating in the public education campaign for avifauna described in Section 11 of this plan.

Smaller warning signs shall be affixed to rope barrier bollards at approximately 50 m intervals around the entire perimeter of the rope barrier enclosing the kororā nesting habitat. These warning signs shall notify park users that the area within the rope barrier provides nesting habitat for kororā and will request that people and dogs stay out of this nesting area to avoid disturbing breeding penguins. The specific content of these signs will be developed in consultation with the LPIG, mana whenua and will include design elements contributed by local students participating in the public education campaign for avifauna described in Section 11 of this plan. An example design for a kororā warning sign is provided

Warning signage shall be installed as soon as the BPA has been constructed, and Interpretation panels shall be installed as soon as possible following the completion of this BPA, and no later than 18 months following the commencement of works along this section of the Project.

9.3.5 Kororā nest boxes

Up to 53 Kororā artificial nest boxes will be installed in the Kororā nesting habitat, arranged in clusters according to the topography and planting. Within each cluster, each artificial nest box shall be spaced approximately 2 m from one another.



Figure 9.10. Example of a Kororā artificial nest box on Matiu/Somes Island. The nest box has been placed under the shelter of a mature taupata (*Coprosma repens*) shrub

Kororā nest boxes will be built according to the standard nest box design developed by Vince Waanders and Mike Rumble, which is available on the DOC website⁸. Artificial nest boxes will be installed within nine months of the Commencement of Construction, but after the completion of the bulk of the planting work. Nest boxes need to be placed in sheltered sites either beneath vegetation or sheltered by driftwood or rocks. The nest boxes will be placed by the Project Ornithologist in consultation with LPIG, in locations to maximise uptake by kororā

9.3.6 Sea level rise response and resilience

The Intergovernmental Panel on Climate Change Fifth Assessment Report estimates that global mean sea levels will rise by up to 0.98 m above current levels by the year 2100, assuming unmitigated growth in carbon emissions over that time⁹. However, a more recent survey of climate scientists has estimated that global mean sea levels could rise by up to 1.32 m over the same period¹⁰. During the 35-year term of this consent, the extent of sea-level rise along the Eastbourne coastline is likely to be considerably less than that forecasted for 2100, although the precise extent to which sea levels will rise over this 35-year timeframe is still uncertain.

The risk that sea level rise poses to the Whiorau Park BPA will be mitigated in three ways:

1. **Resilience:** The Whiorau Park BPA has been designed to maximise its resilience to the impacts of sea level rise, by positioning the majority of the kororā habitat on higher ground along the inland edge of the existing park (Figure 9.11).
2. **Retreat:** Any kororā nest boxes that become threatened by seawater inundation or flooding shall be relocated inland, or to higher ground whenever possible, during the annual maintenance programme described in Section 9.3.7 below.
3. **Repatriation:** Should the entire Whiorau Park BPA become unsuitable as nesting habitat for kororā as a consequence of sea-level rise, the Consent Holder shall work with the relevant authorities including DOC and GWRC; and the LPIG to investigate options to create an equivalent number of nesting opportunities at a more suitable site within Wellington Harbour. This work shall include investigating measures that can be taken to safely relocate any kororā that are still attempting to breed within the Whiorau Park BPA at the time.

9.3.7 Maintenance

The Consent Holder shall carry out the following annual maintenance plan within the Whiorau Reserve BPA:

- **Maintenance of fencing and signage:** The Consent Holder shall carry out an annual inspection of fencing and signage associated with the BPA and shall repair or replace any damaged or missing fencing and signage. This annual check shall be carried out between March and June each year to avoid the risk of disturbing nesting or moulting kororā. In addition to this, the Consent Holder shall respond to any reports of damaged or missing fencing and signage received from members of the public as required and shall carry out repairs or replacements as soon as practical following reports of damage.
- **Predator trap servicing and maintenance:** MIRO volunteers shall carry out the annual programme of DOC200 trap checks as described in Section 7 and Section 9.3.2 of this Plan. In addition, MIRO shall be responsible for carrying out trap maintenance, repairs and replacement on an 'as needed' basis.
- **Weed control in backdune/kororā habitat plantings:** The Consent Holder shall engage a suitably experienced contractor to carry out an annual check for weeds in the backdune/kororā habitat restoration area and will control any herbaceous or woody weeds found using either herbicide or hand-pulling. Key

⁸ <https://www.doc.govt.nz/Documents/conservation/native-animals/birds/nest-box-design.pdf>; accessed 10/06/2021.

⁹ Horton, B.P.; Khan, N.S.; Cahill, N.; Lee, J.S.H.; Shaw, T.A.; Garner, A.J.; Kemp, A.C.; Engelhart, S.E. and Rahmstorf, S. 2020. Estimating global mean sea-level rise and its uncertainties by 2100 and 2300 from an expert survey. *Climate and Atmosphere Science* 18: <https://doi.org/10.1038/s41612-020-0121-5>.

¹⁰ Church, J.A.; Clark, P.U.; Cazenave, A. Gregory, J.M.; Jevrejeva, S.; Levermann, A.; Merrifield, M.A.; Milne, G.A.; Nerem, R.S.; Nunn, P.D.; Payne, A.J.; Pfeffer, W.T.; Stammer, D. and Unnikrishnan, A.S. 2013: *Sea Level Change*. In: Stocker, T.F.; Qin, D.; Plattner, G.-K.; Tignor, M.; Allen, S.K.; Boschung, J.; Nauels, A.; Xia, Y.; Bex, V. and Midgley, P.M. (eds.). *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.



weed species to check for include horned poppy (*Glaucium flavum*), holly-leaved senecio (*Senecio glastifolius*), pōhutukawa (*Metrosideros excelusum*), karo (*Pittosporum crassifolium*), boneseed (*Chrysanthemoides monilifera*) and lupin (*Lupinus arboreus*). This annual check shall be carried out between March and June each year, to avoid the risk of disturbing nesting or moulting kororā

- Kororā artificial nest box maintenance: The Consent Holder shall engage the Project Ecologist or another suitably-experienced subcontractor to carry out an annual check of kororā boxes, to repair or replace damaged boxes and to move any boxes no longer in suitable locations. This annual nest box maintenance task shall be carried out between March and June each year.

This dedicated maintenance programme shall continue for five years following the construction of this BPA, after which these maintenance tasks shall be amalgamated into HCC's Parks and Reserves maintenance programme and shall be continued for a minimum of 30 further years, ensuring that the maintenance of this BPA continues for the 35-year term of this consent.

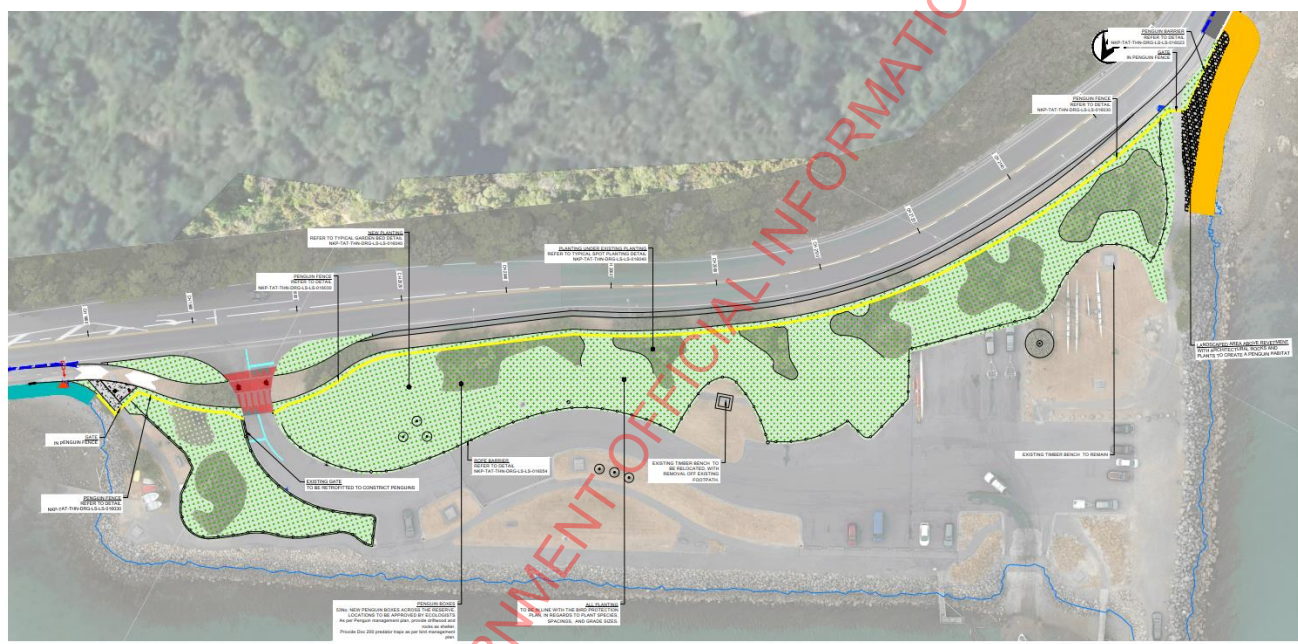


Figure 9.11 Landscape design for the Whiorau Reserve Bird Protection Area.



9.4 Bishop Park Bird Protection Area

An area of 6782 m² at Bishop Park will be developed as kororā nesting habitat, and a further area of 7781 m² will be developed into a foredune restoration area. Specific elements included in the design of this BPA include:

- A 1.2 m fence along the seaward edge of Bishop Park between Marine Parade and the Rona Bay Wharf carpark, to prevent dogs and people on Bishop Park from wandering into the adjacent kororā nesting habitat, and to prevent kororā from wandering through the kororā / habitat and onto Bishop Park after dark.
- A suspended rope barrier and associated warning signage along the seaward perimeter of the combined foredune restoration area and kororā nesting habitat, to reduce the risk of dogs and people venturing into the dunes and penguin nesting habitat from the foreshore, while allowing kororā unimpeded access after dark.
- Predator traps designed to target key predators of kororā, namely mustelids, hedgehogs and rats.
- A planting plan for the kororā nesting habitat and foredune restoration area.
- Interpretation panels informing the public of the presence of nesting kororā and providing information on key elements of the birds' biology, life cycle and threats.
- A single, re-designed pedestrian accessway through the kororā nesting habitat and foredune restoration areas, between Marine Parade and the foreshore.
- The installation of up to 156 kororā artificial nest boxes, arranged in clusters according to the topography and planting, and the creation of penguin pathways providing kororā with unimpeded access from the foreshore to each cluster of boxes.

Prior to any Construction Works being carried out within the Bishop Park BPA, a suitably experienced and qualified herpetologist shall be engaged to carry out a site assessment of the herpetofauna values of Bishop Park and to advise on any herpetofauna habitats that need to be maintained and protected during Construction Works.

Further details on the design and layout of each of these elements are described in the sections below, and a landscape design for the Bishop Park BPA can be found in Figure 9.13.

9.4.1 Fencing

A screening fence shall be constructed along the seaward edge of Bishop Park between Marine Parade and the Rona Bay Wharf carpark, to create a physical barrier to prevent dogs and people on Bishop Park from wandering into the adjacent kororā nesting habitat, and to prevent kororā from wandering through the kororā habitat and onto Bishop Park after dark (Figure 9.13). The screening fence will be approximately 350 m long and 1.2 m in height and will be constructed from timber in keeping with the urban design theme proposed for the shared path (refer to the LUDP). The screening fence shall be constructed within 18 months of the commencement of works along this section of the Project, but is recommended to be installed as soon as practically possible.

A suspended rope barrier will also be constructed along the seaward perimeter of the combined foredune restoration area and kororā nesting habitat, to reduce the risk of dogs and people venturing into the dunes and penguin nesting habitat from the foreshore, while allowing kororā unimpeded access after dark. (Figure 9.13). The rope barrier will have an approximate total length of 480 m and shall consist of a single rope suspended between wooden bollards, with the lowest point of the rope no less than 40 cm off the ground to ensure unimpeded access for kororā after dark (see Figure 9.6). Warning signs shall be affixed to rope barrier bollards at approximately 50 m intervals along the entire length of the rope barrier. These warning signs shall notify park users that the area within the rope barrier provides nesting habitat for kororā and will request that people and dogs stay out of this nesting area to avoid disturbing breeding penguins. The specific content of these signs will be developed in consultation with the LPIG, mana whenua and design elements contributed by students participating in the public education campaign for avifauna described in Section 11.3 of this plan. An example design for a kororā warning sign is shown in Figure 9.7 above rope barrier and associated warning signage be constructed within 18 months of the commencement of works along this section of the Project but is recommended to be installed as soon as practically possible.

9.4.2 Pest control





DOC200 kill traps shall be spaced at 50 m intervals along the seaward edge of the kororā nesting habitat, as part of the Eastern Bays Shared Pathway Predator Management Strategy. The design of these DOC200 traps shall be reviewed by the LPIG and GWRC Biosecurity Department staff, to ensure the design used minimises the risk of the non-target capture of kororā. These DOC200 traps will be installed, checked and maintained by MIRO volunteers, as part of MIRO's wider ERAT predator trapping programme.

These DOC200 traps will be serviced fortnightly between July and February inclusive, and baited with Erayz™ blocks (dried rabbit). All used bait and animal carcasses will be removed from the traps during each check and disposed of off-site, to avoid providing a supplementary food resource for mammalian and avian predators and scavengers. During the months of March and June inclusive, trap checks shall be reduced to once per month.

Predator trapping must be implemented within 18 months of the commencement of works along this section of the Project. A more detailed description of the Eastern Bays Predator Management Strategy can be found in Section 7 of this plan.

In addition to the predator trapping within this BPA, HCC will also engage with GWRC to investigate the need to, and practicality of, controlling rabbits within the Bishop Park BPA, to reduce damage and losses to native plantings caused by browsing rabbits. Potential control options include night shooting and/or poisoning, however given current public usage of this site, and the proximity of these sites to suburban areas it is recognized that the implementation of rabbit control measures may be difficult or impossible to achieve.

9.4.3 Planting plan

A programme of planting shall be carried out to create suitable habitat for nesting within the kororā nesting habitat. A relatively small number of plant species native to the Tararua Ecological District shall be planted within the kororā nesting habitat with the aim of quickly creating a coastal shrubland community with sufficient canopy cover to provide cover and shelter for nesting penguins (see examples in Figure 9.8 and Figure 9.9 above, and the planting plan in Table 9.2 below).

Key plant species that will be used to create the structure of this coastal shrubland include taupata (*Coprosma repens*), mingimingi (*Coprosma propinqua*), knobby club-rush (*Ficinia nodosa*), and silver tussock (*Poa cita*). Once this structural planting has been completed, infill planting of a wider range of species will then be carried out, including *Poa billardierei*, *Carex pumila*, *Melicytus orarius*, *Muehlenbeckia complexa* and *Phormium cookianum*. All plants will be propagated from seed collected from within the Tararua Ecological District. Biodegradable plant protectors shall be placed around all plant species known to be palatable to rabbits, including both taupata and knobby club rush, two plant species that were heavily browsed during the establishment of the Day's Bay Penguin Haven.

This kororā nesting habitat planting plan will be implemented as soon as practically possible, to allow sufficient time for plantings to mature prior to the installation of kororā artificial nest boxes. The planting plan will be finalised once the arrangement of nest boxes is confirmed.

Table 9.2 Indicative planting plan for the Bishop Park backdune and kororā habitat.

Backdune & Kororā Habitat						
Botanical Name	Common Name	Size		Spacing (mm)	% of Mix	Quantity
<i>Apodasmia similis</i>	Oioi	RT / RX90		300	6%	4521
<i>Carex pumila</i>	Sand sedge	RT / RX90		300	5%	3768
<i>Coprosma acerosa</i>	Sand coprosma	RT / RX90		500	4%	1085
<i>Coprosma propinqua</i>	Mingimingi	RT / RX90		500	10%	2713
<i>Coprosma repens</i>	Taupata	RT / RX90		500	20%	5426
<i>Euphorbia glauca</i>	Waiu-atua	RT / RX90		500	2%	543
<i>Ficinia nodosa</i>	Wiwi	RT / RX90		300	14%	10550
<i>Melicytus orarius</i>		RT / RX90		500	1%	271
<i>Muehlenbeckia complexa</i>	Small leaved pohuehue	RT / RX90		500	5%	1356



Backdune & Kororā Habitat						
Botanical Name	Common Name	Size		Spacing (mm)	% of Mix	Quantity
<i>Olearia solandri</i>	Coastal tree daisy	RT / RX90		500	2%	543
<i>Ozothamnus leptophyllus</i>	Tauhinu	RT / RX90		500	2%	543
<i>Phormium cookianum</i>	Wharariki	RT / RX90		500	5%	1356
<i>Phormium tenax</i>	Harakeke, NZ flax	RT / RX90		500	2%	543
<i>Poa billardierei</i>	Hinarepe	RT / RX90		300	6%	4521
<i>Poa cita</i>	Silver tussock	RT / RX90		300	16%	12057
Total		6782	m ²		100%	49795

A separate programme of planting will also be carried out to create a restored foredune vegetated in native sand-binding plants. Marram grass (*Ammophila arenaria*) will first be sprayed with herbicide and allowed to die off before being replaced with plantings of native sand binders including spinifex (*Spinifex sericeus*) and pingao (*Ficinia spiralis*) (Table 9.3). Sprayed marram grass will be left in situ, to assist with dune stabilization during the establishment phase of native sand-binders. The removal and replacement of marram grass with native sand binders shall be carried out in stages, beginning at the northeastern end of the BPA and progressively working along the coastline until the southwestern end is reached. A small area of marram approximately 800 m² in area shall be permanently retained at the southeastern end of the BPA for historical and amenity purposes.

This foredune restoration planting plan will be implemented as soon as practically possible, however each area of new foredune plantings will be given time to establish and stabilise the dune area they are planted on before the next stage of marram removal and revegetation is attempted.

Table 9.3 Indicative planting plan for the Bishop Park foredune habitat

Foredune Habitat						
Botanical Name	Common Name	Size		Spacing (mm)	% of Mix	Quantity
<i>Poa billardierei</i>	Hinarepe	RT / RX90		500	15%	4669
<i>Ficinia spiralis</i>	Pingao	RT / RX90		500	20%	6225
<i>Spinifex sericeus</i>	Kowhangatara	RT / RX90		500	55%	17118
<i>Poa cita</i>	Silver Tussock	RT / RX90		300	10%	8646
Total		7781	m ²		100%	36657

9.4.4 Signage

Interpretation panels and warning signage shall be installed on and near the perimeter of the combined foredune restoration area and kororā nesting habitat within the Bishop Park BPA.

Interpretation panels shall be installed at both the southwestern and northeastern ends of the BPA. The southwestern interpretation panels will be installed on the edge of the Rona Bay Wharf carpark, just inside the rope barrier and the northeastern interpretation panels will be installed near the entrance of the pedestrian track connecting Marine Parade to the foreshore. These interpretation panels will provide information on the lifecycle and habitat requirements of kororā, the threats that they face and information on how park users can minimise their impact on kororā nesting at this site. The southwestern interpretation panels will also include information explaining the history of dune stabilisation at the site of the remnant patch of marram (*Ammophila arenaria*) to be left at the southern end of the BPA for historical and amenity purposes. The interpretation panels will be constructed from timber in keeping with the urban design theme proposed for the shared path (refer to the LUDP) and content of these panels will be developed in consultation with the LPIG and mana whenua and will include design elements contributed by local students participating in the public education campaign for avifauna described in Section 11 of this plan.

Smaller warning signs shall be affixed to rope barrier bollards at approximately 50 m intervals around the entire perimeter of the rope barrier enclosing the combined foredune restoration area and kororā nesting habitat. These warning signs shall notify park users that the area within the rope barrier provides nesting habitat for kororā and will request that people and dogs stay out of this nesting area to avoid disturbing breeding penguins. The specific content of these signs will be developed in consultation with the LPIG and mana whenua and will include design elements contributed by local students participating in the public education campaign for avifauna described in Section 11.3 of this plan. An example design for a kororā warning sign is provided above.

Warning signage shall be installed as soon as the BPA has been constructed, and Interpretation panels shall be installed as soon as possible following the completion of this BPA, and no later than 18 months following the commencement of works along this section of the Project.

9.4.5 Pedestrian accessways

A number of existing desire lines (informal pathways) currently run through the planned foredune restoration area and kororā nesting habitat. All of these desire lines shall be retired, with their access points from either the foreshore, Marine Parade, Bishop Park or the Rona Bay Wharf carpark fenced off, and the desire lines themselves revegetated in foredune or kororā nesting habitat plantings. One prominent desire line running between Marine Parade and the foreshore at the northeastern end of the BPA shall be retained and re-routed, to maintain easy pedestrian access to the foreshore from Marine Parade. This pathway shall skirt along the seaward edge of the screening fence before cutting through the kororā nesting habitat and for kororā nesting habitat and foredune restoration area to reach the foreshore (Figure 9.12). This pathway will be fenced on either side with a suspended rope barrier that connects to the barrier running along the seaward edge of the foredune restoration area, to discourage pathway users from entering the kororā nesting habitat or foredune restoration area. The Marine Parade to this pathway shall be gated to prevent from venturing onto Marine Parade after dark.

9.4.6 Kororā nest boxes

Up to 156 kororā artificial nest boxes will be installed in the kororā nesting habitat, arranged in clusters according to the topography and planting. Within each cluster, each artificial nest box shall be spaced approximately 2 m from one another.

Kororā nest boxes will be built according to the standard nest box design developed by Vince Waanders and Mike Rumble, which is available on the DOC website¹¹. These artificial nest boxes will be installed within 18 months of the Commencement of Construction, but after the completion of the bulk of the planting work. Nest boxes need to be placed in sheltered sites either beneath vegetation or sheltered by driftwood or rocks (e.g., Figure 9.8 and Figure 9.9 above). The nest boxes will be placed by the Project Ornithologist in consultation with LPIG, in locations to maximise uptake by kororā.

Between each penguin box cluster and the foreshore, a 20 cm wide corridor of bare sand and gravel shall be maintained to create a “penguin pathway” providing kororā with unimpeded access through the foredune restoration area to each penguin box cluster. Silver tussock (*Poa cita*) shall be planted on either side of each penguin pathway, in an attempt to reduce the rate at which native stoloniferous and rhizomatous sand-binding plants such as spinifex (*Spinifex sericeus*) and pingao (*Ficinia spiralis*) overgrow these pathways.

9.4.7 Sea level rise response and resilience

The Intergovernmental Panel on Climate Change Fifth Assessment Report estimates that global mean sea levels will rise by up to 0.98 m above current levels by the year 2100, assuming unmitigated growth in carbon emissions over that time. However, a more recent survey of climate scientists has estimated that global mean sea levels could rise by up to 1.32 m over the same period. During the 35-year term of this consent, the extent of sea-level rise along the Eastbourne coastline is likely to be considerably less than that forecasted for 2100, although the precise extent to which sea levels will rise over this 35-year timeframe is still uncertain.

¹¹ <https://www.doc.govt.nz/Documents/conservation/native-animals/birds/nest-box-design.pdf>, accessed 10/06/2021.

The risk that sea level rise poses to the Bishop Park BPA will be mitigated in three ways:

1. **Resilience:** The Bishop Park BPA has been designed to maximise its resilience to the impacts of sea level rise, by protecting the kororā with a substantial area of foredune habitat positioned to seaward, planted with native sand-binders (Figure 9.9 above).
2. **Retreat:** Any kororā nest boxes that become threatened by seawater inundation or flooding shall be relocated inland, or to higher ground whenever possible, during the annual maintenance programme described in Section 9.4.8 below.
3. **Repatriation:** Should the entire Bishop Park BPA become unsuitable as nesting habitat for kororā as a consequence of sea-level rise, the Consent Holder shall work with the relevant authorities including DOC and GWRC, and the LPIG, to investigate options to create an equivalent number of nesting opportunities at a more suitable site within Wellington Harbour. This work shall include investigating measures that can be taken to safely relocate any kororā that are still attempting to breed within the Bishop Park BPA at the time.

9.4.8 Maintenance

The Consent Holder shall carry out the following annual maintenance plan within the Bishop Park BPA:

- **Maintenance of fencing and signage:** The Consent Holder shall carry out an annual inspection of fencing and signage associated with the BPA and shall repair or replace any damaged or missing fencing and signage. This annual check shall be carried out between March and June each year to avoid the risk of disturbing nesting or moulting kororā. In addition to this, the Consent Holder shall respond to any reports of damaged or missing fencing and signage received from members of the public as required and shall carry out repairs or replacements as soon as practical following reports of damage.
- **Predator trap servicing and maintenance:** MIRO volunteers shall carry out the annual programme of DOC200 trap checks as described in Section 7 and Section 9.4.2 of this Plan. In addition, MIRO shall be responsible for carrying out trap maintenance, repairs and replacement on an 'as needed' basis.
- **Weed control in foredune plantings:** The Consent Holder shall engage a suitably experienced contractor to carry out an annual check for weeds in the foredune restoration area and will control any herbaceous or woody weeds found using either herbicide or hand-pulling. Key weed species to check for include marram (*Ammophila arenaria*), horned poppy (*Glaucium flavum*), holly-leaved senecio (*Senecio glastifolius*), boneseed (*Chrysanthemoides monilifera*) and lupin (*Lupinus arboreus*). This annual check shall be carried out between September and December each year, to maximise the effectiveness of any herbicide application required.
- **Weed control in backdune kororā habitat plantings:** The Consent Holder shall engage a suitably experienced contractor to carry out an annual check for weeds in the backdune kororā habitat restoration area and will control any herbaceous or woody weeds found using either herbicide or hand-pulling. Key weed species to check for include marram, horned poppy, holly-leaved senecio, pōhutukawa, karo, boneseed and lupin. This annual check shall be carried out between March and June each year, to avoid the risk of disturbing nesting or moulting kororā.
- **Kororā artificial nest box maintenance:** The Consent Holder shall engage the Project Ornithologist or another suitably-experienced subcontractor to carry out an annual check of kororā / boxes, to repair or replace damaged boxes and to move any boxes no longer in suitable locations. This annual nest box maintenance task shall be carried out between March and June each year.

This dedicated maintenance programme shall continue for five years following the construction of this BPA, after which these maintenance tasks shall be amalgamated into HCC's Parks and Reserves maintenance programme and shall be continued for a minimum of 30 further years, ensuring that the maintenance of this BPA continues for the 35-year term of this consent.



Figure 9.12 Landscape design for the Bishop Park Bird Protection Area.

9.5 HW Shortt Park Bird Protection Area

An area of 2017 m² at HW Shortt Park will be developed as kororā nesting habitat, and a further area of 3875 m² will be developed into a foredune restoration area. Specific elements included in the design of this BPA include:

- A 1.2 m fence along the seaward edge of HW Shortt Park between the Maire Street Carpark and the Eastbourne Community Hall, to prevent dogs and people using HW Shortt Park from wandering into the adjacent kororā nesting habitat, and to prevent kororā from wandering through the kororā habitat and onto HW Shortt Park after dark.
- A suspended rope barrier and associated warning signage along the seaward perimeter of the combined foredune restoration area and kororā nesting habitat, to reduce the risk of dogs and people venturing into the dunes and penguin nesting habitat from the foreshore, while allowing kororā unimpeded access after dark
- Predator traps designed to target key predators of kororās, namely mustelids, hedgehogs and rats.
- A planting plan for the kororā nesting habitat and foredune restoration area
- Interpretation panels informing the public of the presence of nesting Kororā and providing information on key elements of the birds' biology, life cycle and threats.
- Two pedestrian accessways through the kororā nesting habitat and foredune restoration areas, from the Maire Street Carpark and from HW Shortt Park.
- The installation of 60 kororā artificial nest boxes, arranged in clusters according to the topography and planting, and the creation of penguin pathways providing kororā with unimpeded access from the foreshore to each cluster of boxes.

Further details on the design and layout of each of these elements are described in the sections below, and a landscape design for the HW Shortt Park BPA can be found in Figure 9.13.

9.5.1 Fencing

A screening fence shall be constructed along the seaward edge of HW Shortt Park between Maire Street and the Eastbourne Community Hall, to create a physical barrier to prevent dogs and people on HW Shortt Park from wandering into the adjacent kororā nesting habitat, and to prevent kororā from wandering through the kororā habitat and onto HW Shortt Park after dark (Figure 9.13). The screening fence will be approximately 245 m long and 1.2 m in height and will be constructed from timber in keeping with the urban design theme proposed for the shared path (refer to the LUDP). The screening fence shall be constructed within 18 months of the commencement of works along this section of the Project, but is recommended to be installed as soon as practically possible.

A suspended rope barrier will also be constructed along the seaward perimeter of the combined foredune restoration area and kororā nesting habitat, connected to the northern and southern ends of the screening fence, to reduce the risk of dogs and people venturing into the dunes and penguin nesting habitat from the foreshore, while allowing kororā unimpeded access after dark. (Figure 8-16). The rope barrier will have an approximate total length of 480 m and shall consist of a single rope suspended between wooden bollards, with the lowest point of the rope no less than 40 cm off the ground to ensure unimpeded access for kororā (Figure 9.6). Warning signs shall be affixed to rope barrier bollards at approximately 50 m intervals along the entire length of the rope barrier. These warning signs shall notify pedestrians that the area within the rope barrier provides nesting habitat for kororā and will request that people and dogs stay out of this nesting area to avoid disturbing. The specific content of these signs will be developed in consultation with the LPIG and Mana whenua and will include design elements contributed local students participating in the public education campaign for avifauna described in Section 11.3 of this plan. An example design for a kororā warning sign is provided in Figure 9.7. The rope barrier and associated warning signage shall be constructed within 18 months of the commencement of works along this section of the Project, but is recommended to be installed as soon as practically possible.

9.5.2 Pest control

DOC200 kill traps shall be spaced at 50 m intervals along the seaward edge of the kororā nesting habitat, as part of the Eastern Bays Shared Pathway Predator Management Strategy. The design of these DOC200 traps



shall be reviewed by the LPIG and GWRC Biosecurity Department staff, to ensure the design used minimises the risk of the non-target capture of kororā. These DOC200 traps will be installed, checked and maintained by MIRO volunteers, as part of MIRO's wider ERAT predator trapping programme.

These DOC200 traps will be serviced fortnightly between July and February inclusive, and baited with Erayz™ blocks (dried rabbit). All used bait and animal carcasses will be removed from the traps during each check and disposed of off-site, to avoid providing a supplementary food resource for mammalian and avian predators and scavengers. During the months of March and June inclusive, trap checks shall be reduced to once per month.

Predator trapping must be implemented within 18 months of the commencement of works along this section of the Project). A more detailed description of the Eastern Bays Predator Management Strategy can be found in Section 7.1 of this plan.

In addition to the predator trapping within this BPA, HCC will also engage with GWRC to investigate the need to, and practicality of, controlling rabbits within the HW Shortt Park BPA, to reduce damage and losses to native plantings caused by browsing rabbits. Potential control options include night shooting and/or poisoning, however given current public usage of this site, and the proximity of these sites to suburban areas it is recognized that the implementation of rabbit control measures may be difficult or impossible to achieve.

9.5.3 Planting plan

A programme of planting shall be carried out to create suitable habitat for nesting kororā within the kororā nesting habitat. A relatively small number of plant species native to the Tararua Ecological District shall be planted within the kororā nesting habitat with the aim of quickly creating a coastal shrubland community with sufficient canopy cover to provide cover and shelter for nesting penguins (see examples in Figure 9.8 and Figure 9.9 above, and the indicative planting plan in Table 9.4 below).

Key plant species that will be used to create the structure of this coastal shrubland include taupata (*Coprosma repens*), mingimingi (*Coprosma propinqua*), knobby club-rush (*Ficinia nodosa*), and silver tussock (*Poa cita*). Once this structural planting has been completed, infill planting of a wider range of species will then be carried out, including *Poa billardierei*, *Carex pumila*, *Melicytus orarius*, *Muehlenbeckia complexa* and *Phormium cookianum*. All plants will be propagated from seed collected from within the Tararua Ecological District. Biodegradable plant protectors shall be placed around all plant species known to be palatable to rabbits, including both taupata and knobby club rush – two plant species that were heavily browsed during the establishment of the Day's Bay Penguin Haven.

This kororā nesting habitat planting plan will be implemented as soon as practically possible, to allow sufficient time for plantings to mature prior to the installation of kororā artificial nest boxes.

The planting plan will be finalised once the arrangement of nest boxes is confirmed.

Table 9.4 Indicative planting plan for the HW Shortt Park backdune and Kororā habitat.

Backdune & Kororā Habitat						
Botanical Name	Common Name	Size		Spacing (mm)	% of Mix	Quantity
<i>Apodasmia similis</i>	Oioi	RT / RX90		300	6%	1345
<i>Carex pumila</i>	Sand sedge	RT / RX90		300	5%	1121
<i>Coprosma acerosa</i>	Sand coprosma	RT / RX90		500	4%	323
<i>Coprosma propinqua</i>	Mingimingi	RT / RX90		500	10%	807
<i>Coprosma repens</i>	Taupata	RT / RX90		500	20%	1614
<i>Euphorbia glauca</i>	Waiu-atua	RT / RX90		500	2%	161
<i>Ficinia nodosa</i>	Wiwi	RT / RX90		300	14%	3138
<i>Melicytus orarius</i>		RT / RX90		500	1%	81
<i>Muehlenbeckia complexa</i>	Small leaved pohuehue	RT / RX90		500	5%	403
<i>Olearia solandri</i>	Coastal tree daisy	RT / RX90		500	2%	161



<i>Ozothamnus leptophyllus</i>	Tauhinu	RT / RX90		500	2%	161
<i>Phormium cookianum</i>	Wharariki	RT / RX90		500	5%	403
<i>Phormium tenax</i>	Harakeke, NZ flax	RT / RX90		500	2%	161
<i>Poa billardierei</i>	Hinarepe	RT / RX90		300	6%	1345
<i>Poa cita</i>	Silver tussock	RT / RX90		300	16%	3586
Total		2017	m ²		100%	14809

A separate programme of planting will also be carried out to create a restored foredune vegetated in native sand-binding plants. Marram grass (*Ammophila arenaria*) will first be sprayed with herbicide and allowed to die off before being replaced with plantings of native sand binders including spinifex (*Spinifex sericeus*) and pingao (*Ficinia spiralis*) (Table 9.5). Marram spraying needs to be conducted with care in order to avoid any accidental by-kill of native dune plants that have been planted by the Eastbourne Dunes Restoration Group in recent years. Any existing native dune plants present in the foredune restoration area will be retained and assimilated into this planting plan. Sprayed marram grass will be left in situ, to assist with dune stabilization during the establishment phase of native sand-binders. The removal and replacement of marram grass with native sand binders shall be carried out in stages, beginning at the northeastern end of the BPA and progressively working along the coastline until the southwestern end is reached.

This foredune restoration planting plan will be implemented as soon as practically possible, however each area of new foredune plantings will be given time to establish and stabilize the dune area they are planted on before the next stage of marram removal and revegetation is attempted.

Table 9.5 Indicative planting plan for the HW Shortt Park foredune habitat.

Foredune Habitat						
Botanical Name	Common Name	Size		Spacing (mm)	% of Mix	Quantity
<i>Poa billardierei</i>	Hinarepe	RT / RX90		500	15%	2325
<i>Ficinia spiralis</i>	Pingao	RT / RX90		500	20%	3100
<i>Spinifex sericeus</i>	Kowhangatara	RT / RX90		500	55%	8525
<i>Poa cita</i>	Silver tussock	RT / RX90		300	10%	4306
Total		3875	m ²		100%	18256

9.5.4 Signage

Interpretation panels and warning signage shall be installed on and near the perimeter of the combined foredune restoration area and kororā nesting habitat within the HW Shortt Park BPA.

Interpretation panels shall be installed at both the northern and southern ends of the BPA. The southern interpretation panels will be installed on the edge of the Maire Street carpark, just inside the rope barrier and the northern interpretation panels will be installed near the northern edge of the BPA in the vicinity of the Eastbourne Community Hall. These interpretation panels will provide information on the lifecycle and habitat requirements of kororā, the threats that they face and information on how park users can minimise their impact on kororā nesting at this site. The interpretation panels will be constructed from timber in keeping with the urban design theme proposed for the shared path (refer to the Landscape and Urban Design Plan (LUDP)) and content of these panels will be developed in consultation with the LPIG and Mana Whenua and will include design elements contributed by local students participating in the public education campaign for avifauna described in Section 11.3 of this plan.

Smaller warning signs shall be affixed to rope barrier bollards at approximately 50 m intervals around the entire perimeter of the rope barrier enclosing the combined foredune restoration area and kororā nesting habitat. These warning signs shall notify park users that the area within the rope barrier provides nesting habitat for

kororā and will request that people and dogs stay out of this nesting area to avoid disturbing breeding penguins. The specific content of these signs will be developed in consultation with the LPIG, mana whenua and will include design elements contributed by local students participating in the public education campaign for avifauna described in Section 11.3 of this plan. An example design for a kororā warning sign is provided

Warning signage shall be installed as soon as the BPA has been constructed, and Interpretation panels shall be installed as soon as possible following the completion of this BPA, and no later than 18 months following the commencement of works along this section of the Project.

9.5.5 Pedestrian accessways

A number of existing desire lines (informal pathways) currently run through the planned foredune restoration area and kororā nesting habitat within this BPA. All but two of these desire lines shall be retired, with their access points from either the foreshore, Maire Street or HW Shortt Park fenced off, and the desire lines themselves revegetated in foredune or kororā. Two prominent and well-used desire lines shall be developed into formal pedestrian accessway. The first begins halfway along the seaward boundary of HW Shortt Park and crosses the existing foredune habitat to reach the foreshore. In the case of this pathway, a gate shall be installed in the fence on the seaward boundary of HW Shortt Park to prevent penguins from venturing onto HW Shortt Park after dark, while allowing pedestrian access through the BPA to the foreshore during daylight hours. The pathway connecting the gate to the foreshore shall be fenced on either side with a suspended rope barrier connecting the rope barrier that runs along the seaward edge of the foredune restoration area with the fence along the seaward boundary of HW Shortt Park (Figure 9.13). The second pathway begins in the northwestern corner of the Maire Street carpark and cuts across the dunes to the foreshore. This pathway will also be fenced on either side with a suspended rope barrier to discourage pedestrians from venturing into the foredune restoration area (Figure 9.13).

9.5.6 Kororā nest boxes

Sixty kororā artificial nest boxes will be installed in the kororā nesting habitat arranged in clusters according to the topography and planting. Within each cluster, each artificial nest box shall be spaced approximately 2 m from one another.

Kororā nest boxes will be built according to the standard nest box design developed by Vince Waanders and Mike Rumble, which is available on the DOC website¹². These artificial nest boxes will be installed within 18 months of the Commencement of Construction, but after the completion of the bulk of the planting work. Nest boxes need to be placed in sheltered sites either beneath vegetation or sheltered by driftwood or rocks. The nest boxes will be placed by the Project Ornithologist in consultation with LPIG, in locations to maximise uptake by kororā.

Between each penguin box cluster and the foreshore, a 20 cm wide corridor of bare sand and gravel shall be maintained to create a “penguin pathway” providing kororā with unimpeded access through the foredune restoration area to each penguin box cluster. Silver tussock (*Poa cita*) shall be planted on either side of each penguin pathway, in an attempt to reduce the rate at which native stoloniferous and rhizomatous sand-binding plants such as spinifex (*Spinifex sericeus*) and pingao (*Ficinia spiralis*) overgrow these pathways.

9.5.7 Sea level rise response and resilience

The Intergovernmental Panel on Climate Change Fifth Assessment Report estimates that global mean sea levels will rise by up to 0.98 m above current levels by the year 2100, assuming unmitigated growth in carbon emissions over that time. However, a more recent survey of climate scientists has estimated that global mean sea levels could rise by up to 1.32 m over the same period. During the 35-year term of this consent, the extent of sea-level rise along the Eastbourne coastline is likely to be considerably less than that forecasted for 2100, although the precise extent to which sea levels will rise over this 35-year timeframe is still uncertain.

The risk that sea level rise poses to the HW Shortt Park BPA will be mitigated in three ways:

¹² <https://www.doc.govt.nz/Documents/conservation/native-animals/birds/nest-box-design.pdf>, accessed 10/06/2021.



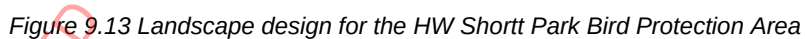
1. **Resilience:** The HW Shortt Park BPA has been designed to maximise its resilience to the impacts of sea level rise, by protecting the kororā with a substantial area of foredune habitat positioned to seaward, planted with native sand-binders (Figure 9.13).
2. **Retreat:** Any kororā nest boxes that become threatened by seawater inundation or flooding shall be relocated inland, or to higher ground whenever possible, during the annual maintenance programme described in Section 9.5.8 below.
3. **Repatriation:** Should the entire HW Shortt Park BPA become unsuitable as nesting habitat for kororāas a consequence of sea-level rise, the Consent Holder shall work with the relevant authorities including DOC and GWRC, and the LPIG, to investigate options to create an equivalent number of nesting opportunities at a more suitable site within Wellington Harbour. This work shall include investigating measures that can be taken to safely relocate any kororā that are still attempting to breed within the HW Shortt Park BPA at the time.

9.5.8 Maintenance

The Consent Holder shall carry out the following annual maintenance plan within the HW Shortt Park BPA:

- **Maintenance of fencing and signage:** The Consent Holder shall carry out an annual inspection of fencing and signage associated with the BPA and shall repair or replace any damaged or missing fencing and signage. This annual check shall be carried out between March and June each year to avoid the risk of disturbing nesting or moulting kororā. In addition to this, the Consent Holder shall respond to any reports of damaged or missing fencing and signage received from members of the public as required and shall carry out repairs or replacements as soon as practical following reports of damage.
- **Predator trap servicing and maintenance:** MIRO volunteers shall carry out the annual programme of DOC200 trap checks as described in Section 7 and Section 8.5.2 of this Plan. In addition, MIRO shall be responsible for carrying out trap maintenance, repairs and replacement on an 'as needed' basis.
- **Weed control in foredune plantings:** The Consent Holder shall engage a suitably experienced contractor to carry out an annual check for weeds in the foredune restoration area and will control any herbaceous or woody weeds found using either herbicide or hand-pulling. Key weed species to check for include marram (*Ammophila arenaria*), horned poppy (*Glaucium flavum*), holly-leaved senecio (*Senecio glastifolius*), boneseed (*Chrysanthemoides monilifera*) and lupin (*Lupinus arboreus*). This annual check shall be carried out between September and December each year, to maximise the effectiveness of any herbicide application required.
- **Weed control in backdune/kororā habitat plantings:** The Consent Holder shall engage a suitably experienced contractor to carry out an annual check for weeds in the backdune/kororā / habitat restoration area and will control any herbaceous or woody weeds found using either herbicide or hand-pulling. Key weed species to check for include marram (*Ammophila arenaria*), horned poppy (*Glaucium flavum*), holly-leaved senecio (*Senecio glastifolius*), pōhutukawa (*Metrosideros excelsus*), karo (*Pittosporum crassifolium*), boneseed (*Chrysanthemoides monilifera*) and lupin (*Lupinus arboreus*). This annual check shall be carried out between March and June each year, to avoid the risk of disturbing nesting or moulting kororā.
- **Kororā artificial nest box maintenance:** The Consent Holder shall engage the Project Ecologist or another suitably-experienced subcontractor to carry out an annual check of kororā boxes, to repair or replace damaged boxes and to move any boxes no longer in suitable locations. This annual nest box maintenance task shall be carried out between March and June each year.

This dedicated maintenance programme shall continue for five years following the construction of this BPA, after which these maintenance tasks shall be amalgamated into HCC's Parks and Reserves maintenance programme and shall be continued for a minimum of 30 further years, ensuring that the maintenance of this BPA continues for the 35-year term of this consent.



9.6 Review and Reporting of BPAs

9.6.1 Review

A suitably qualified and experienced ecologist or the Project Ecologist / Ornithologist shall review the establishment of each of the four BPAs in accordance with the timeframes specified in Condition EM.8A. The purpose of the reviews is to identify if there are reasonably practicable measures that could be implemented to optimise the intended habitat in each BPA for kororā / shoreline foragers (as relevant to the specific BPA) and if such measures are identified, a timeframe for them to be implemented.

Reasonably practicable in the context of Condition EM.8 relates to measures as such as operational matters (including pest management timing / location within Condition EM.1(j)), design matters (such as improved signage or litter bin locations) and/or maintenance issues (such as replacement of damaged items or plantings) that can be implemented without additional consents. Reasonably practicable does not include the redesign and/or redevelopment of a BPA or the addition of new BPA.

The reviews will be undertaken in accordance with the following timeframes:

- Two years from commencement of construction for the Sorrento Bay tōrea pango BPA;
- Two years from the establishment of Bishops Park and HW Shortt Park BPA with regard to shoreline forager habitat; and
- Five years from the establishment of the Whiorau Reserve, Bishops Park and HW Shortt Park BPAs with regard to kororā.

9.6.2 Reporting

A report will be provided to the Manager, Environmental Regulation three months of the review detailing the findings of the review and the reasonably practicable measures that will be implemented. HCC will inform the Manager, Environmental Regulation once the measures have been implemented. The Sorrento Bay review will include any relevant information obtained up until that date from the tōrea pango study required by resource consent condition EM.8D.

At a minimum, the 2-year review of Shoreline Forager habitats will report on the following:

- Provide a quantitative summary of the key results of the tōrea pango study being carried out by Massey University, including any results or recommendations relating to the management of the BPAs.
- Provide a quantitative analysis of trends and changes in the diversity and abundance of Shoreline Foragers within the BPAs, using data obtained from sources including the New Zealand eBird database, the New Zealand Bird Atlas and the Birds New Zealand Wellington Harbour bird survey.
- A summary of the number and locations of predator traps installed and serviced over the preceding two years; a summary of the total number of mammalian predators caught during the preceding two years and a quantitative summary of mammalian predator monitoring results obtained over the previous two years.

At a minimum, the 5-year review of kororā habitats will report on the following:

- A summary of the number and locations of nest boxes present within each of the BPAs, and the proportion of boxes which have been occupied by breeding kororā during each of the five preceding breeding seasons.
- A qualitative analysis of the composition and density of vegetation within the foredune habitat and kororā backdune habitats, including the use of fixed photo-points to document the development and maturation of the native plantings.
- A summary of the number and locations of predator traps installed and serviced over the preceding two years; a summary of the total number of mammalian predators caught during the preceding two years and a quantitative summary of mammalian predator monitoring results obtained over the previous two years.
- A summary of the condition of dog exclusion fencing, warning signage and interpretation panels, including recommendations for improvements and repairs.

Figure 9.15 below provides a schematic representation of the flow of information between each of the reports mentioned above, the two- and five-year reviews of the Kororā and Shoreline Forager habitats in the BPAs, and this BPP.

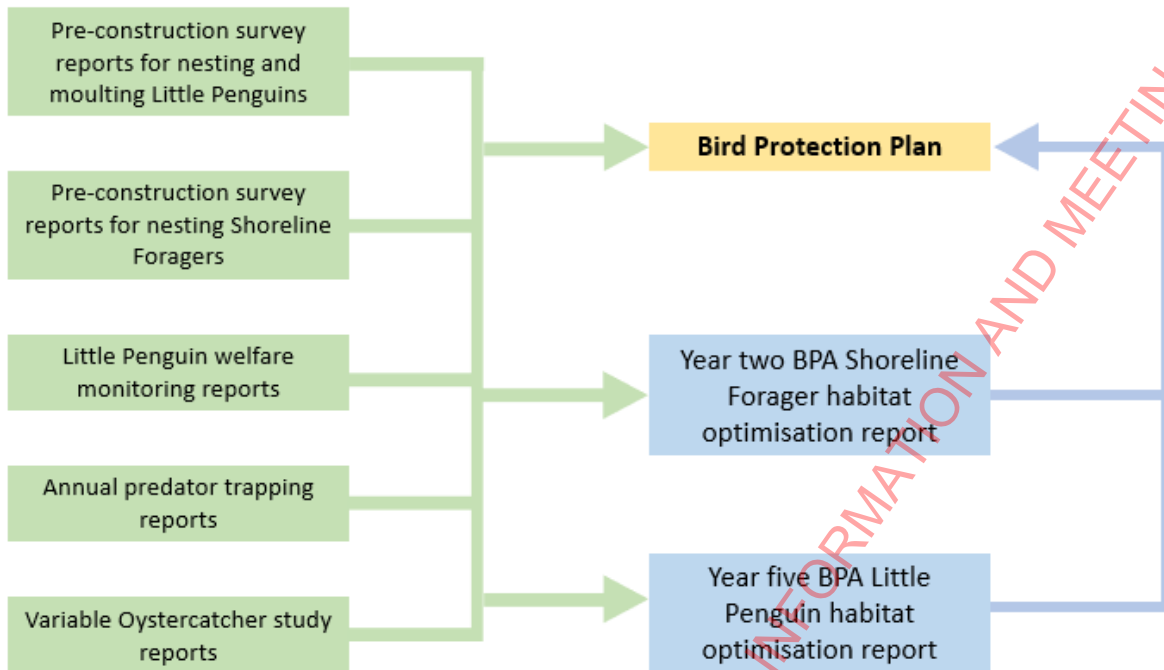


Figure 9.14 Information flow between operational reports, habitat reviews and the Bird Protection Plan

10 Rubbish and Waste Management Plan

Consent conditions EM.3C(h) and EM.7 specify that the Consent Holder must implement a rubbish and waste management plan to mitigate any increase in the quantity of rubbish and waste accumulating along the coastline as a consequence of increased foot traffic along the Tupua Horo Nuku Project.

For the duration of the consent, the Consent Holder shall undertake a six-monthly rubbish clean up along Tupua Horo Nuku and its adjacent beaches. Each rubbish clean-up will involve two staff and a vehicle proceeding along the Tupua Horo Nuku Project area, collecting litter for 1 working day once every six months for the duration of the consent.

Staff will systematically traverse the alignment, and all adjacent sections of coastline that are safely accessible, collecting any organic and inorganic rubbish found. All rubbish collected shall be removed from the site and disposed of in a landfill.

Particular attention and priority will be given to systematically searching the BPAs and removing any inorganic rubbish present in the vicinity of Kororā and Shoreline Forager nesting habitats. Between July and March inclusive, care will be taken during these rubbish clean-ups to avoid disturbing any nesting or moulting kororā or Shoreline Foragers. Precautions taken during these months will include:

- Staff shall not open or inspect kororā artificial nest boxes or natural nesting or moulting sites.
- Staff shall not linger in the vicinity of known kororā or Shoreline Forager nesting or moulting sites.
- If staff observe birds exhibiting aggressive, alarmed or distraction behaviours (e.g., broken-wing display), they shall retreat from the area immediately, along the same route they used to approach the area.

In addition to these 6-monthly rubbish clean-ups, HCC whenever possible shall advocate to the general public and local community the importance of disposing of rubbish and waste in an appropriate manner, to avoid it making its way into the coastal and marine environment. Specific opportunities to communicate this message to the public and the Eastbourne community included within this Plan include:

- Identifying rubbish and litter as a threat to kororā and Shoreline Foragers on interpretation panels to be installed within each BPA and providing information on how the public can assist to minimise this threat, including disposing of rubbish correctly, and picking up rubbish they encounter along the Project alignment (See Section 8 for more details).
- Incorporating messages regarding the threat that rubbish poses to coastal avifauna, and actions the public can take to reduce this threat, into the public education campaign included in this BPP (see Section 10 for more details).

11 Public Education Campaign for Avifauna

Consent conditions EM.3C(i) and EM.9 specify that the Consent Holder must implement a public education campaign for avifauna, aimed at recognising, protecting, and raising public awareness of avifauna in the Project area.

This public education campaign shall have three key elements:

- A public event hosted by the Consent Holder to open and bless the newly constructed BPA, and to create an opportunity to showcase and promote local community-led conservation projects aimed at improving the health of the Eastern Bays coastline and its avifauna. This will also include flyers, website and online resources to support the sharing and promotion of information that is consistent across DOCs programmes including Lead the Way, avifauna information etc.
- The installation one live web camera in an occupied kororā artificial nest box in each BPA, to provide engaged schools, local residents and the general public with the opportunity to follow the lives and breeding success of a local pair of kororā.
- A 5-year programme of events and activities to be offered to Eastbourne schools and the local Kura Kaupapa to:
 - Encourage the local community's participation in measures being taken to maintain and improve habitats for kororā and Shoreline Foragers along the Eastern Bays coastline;
 - Improve the local community's knowledge of the avifauna values of the Eastern Bay's coastline and the threats that kororā and other coastal birds face.
 - Improve the local community's knowledge of what individual residents can do to reduce the threats faced by kororā and other coastal birds along the Eastern Bays coastline.

Local schools and Kura Kaupapa have been chosen as focus for a multi-year programme of events and activities, for three key reasons. Firstly, engaging with local students and their teachers will enable this public engagement campaign to directly engage with a section of the community that is likely to spend a significant amount of time recreating on the Eastern Bays coastline. Secondly, by engaging with local school-aged students, key messages will be communicated indirectly to members of the wider community, either by the students themselves taking key messages home to their families and friends, or via the publicity that a number of these events or activities will generate via conventional and social media. Thirdly, engaging school-aged students to assist with activities such as the construction of kororā artificial nest boxes and the design of interpretation panels will improve the community's "ownership" and "buy-in" of these pieces of infrastructure, which in turn is likely to reduce the risk of vandalism over the lifespan of these structures.

11.1 Public Event to Open and Bless Bird Protection Area

Following the completion of the Whiorau Reserve BPA, the Consent Holder will liaise with Mana Whenua to host a public event to open and bless the newly created kororā nesting habitat. The event will include, but not be limited to, the following components:

- An official opening and karakia / blessing of the BPA and kororā nesting habitat
- Guided public tours of the BPA by led by suitably experienced volunteers recruited from the LPIG, Taranaki Whānui, MIRO and Birds New Zealand
- Flyers and posters containing information about relevant avifauna, BPA and the overall Tupua Horo Nuku project will be created with additional resources being available via education website
- Stalls and information kiosks showcasing local coastal conservation projects including MIRO's ERAT (predator trapping) project and the Eastbourne – Wainuiomata tūturiwhatu / banded dotterel management project; the LPIG's kororā management and monitoring work; Birds New Zealand's Wellington Harbour bird survey project, and general information for Tupua Horo Nuku users and local dog owners on how to avoid having an adverse impact on coastal birds along the Eastern Bays coastline.



11.2 Installation of a live Kororā Web Camera

The Consent Holder will work with the LPIG, DOC, Birds New Zealand and the Cornell Lab of Ornithology to investigate the feasibility of installing a live web camera in an occupied kororā artificial nest box in each of the BPAs, to provide engaged school, local residents and the general public with the opportunity to follow the lives and breeding success of a local pair of kororā. Web camera will need to be installed in a location that is relatively secluded and not accessible to the general public, to avoid any privacy issues. The live camera footage will be hosted on, and viewable via, either the DOC, Cornell Lab of Ornithology, MIRO or HCC websites. This initiative will be modelled on the DOC's Taiaroa Head "Royal Cam" ¹³(Figure 10-1) and the Cornell Lab of Ornithology's Bird Cams¹⁴.

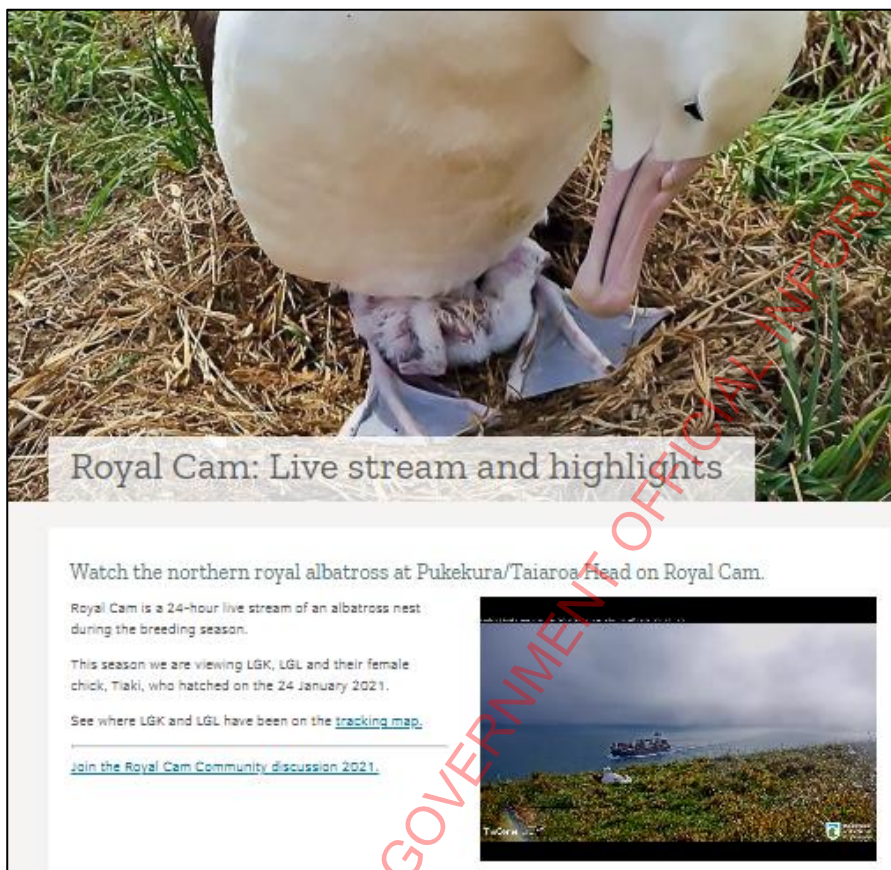


Figure 11.1 Screenshot from the Department of Conservation's Royal Cam webpage.

11.3 Programme of Events for Eastbourne Schools and Kura Kaupapa

The Consent Holder shall engage a suitably experienced and qualified contractor to design and deliver a 5-year programme of events and activities to Eastbourne schools and the local kura kaupapa (Te Ara Whānui Kura Kaupapa), designed to engage local school children to participate in activities aimed at improving habitat quality for kororā and Shoreline Foragers along the Eastern Bays coastline, and to reduce the threats that these species face. All activities and educational material prepared as part of this programme shall be designed in consultation with Taranaki Whānui, to ensure that mana whenua tikanga and values are incorporated into this education campaign.

Activities and events will be offered to Eastern Bays schools during the First, Third, Fifth year following the completion of the first stage of the Project, and shall include (but not be limited to):

¹³ <https://www.doc.govt.nz/royalcam>

¹⁴ <https://www.allaboutbirds.org/cams/all-cams/>



- During Year 1, local students shall be engaged to assist with the decoration and placement of up to of 100 kororā artificial nest boxes, to be installed in the Whiorau Reserve, Bishop Park and HW Shortt Park BPA. These will be the standard nest box design developed by Vince Waanders and Mike Rumble, which is available on the DOC website¹⁵. Members of the LPIG, Project ecologists and other relevant community groups will be approached to assist with supervising students during the placing of nest boxes in BPAs
- During Year 1, HCC shall run a signage design competition for Eastbourne school students and students from the local Kura Kaupapa to participate in, to create the opportunity for local students to contribute design elements for interpretation panels and warning signage to be installed in the four BPAs (e.g., Figure 10-2 and see Section 8 for more details). The design competition could include several age-specific categories, with younger students contributing entries for bird-themed artwork, and older students contributing entries for other design elements such as infographics or key messages. The prize for winning entries could be a guided day trip to Matiu/Somes Island hosted by DOC and/or the LPIG, to learn more about kororā biology and conservation. During Years 1, 3, and 5 HCC shall run a mana whenua inspired -writing competition for students attending Eastbourne schools and local Kura Kaupapa. The writing competition will involve mana whenua visiting participating schools and sharing Pūrākau. Studnets will be encouraged to submit a story based on what they have learnt about the cultural narrative of Te whanganui-a-Tara with the wining submission being selected by the mana whenua steering group. The story will be refined and an iwi artist will be engaged to bring the story to life and developed into a picture book. By participating in this writing competition, students will have the opportunity to research, learn and think about the cultural narrative and their local coastal environment, and the resulting book shall be an effective means of communicating key messages to the wider community.
- During Years 1, 3 and 5, HCC shall offer a programme of guided walks through the BPAs to students from local Kura Kaupapa and Eastbourne schools, delivered in the form of hands-on immersion activities for students. Volunteers from the LPIG, MIRO and Birds New Zealand could be recruited to help deliver a programme of guided walks, with schools and classes being given the opportunity to book one of an annual programme of guided walks on offer. These walks could include an expert-guided tour of the kororā or Shoreline Forager habitats within the BPAs, or expert-led workshops on checking predator traps, monitoring kororā unts or doing coastal rubbish clean-ups. Such 'hands on' activities will provide local students with an excellent opportunity to participate in practical coastal environmental management activities, to meet and listen to subject-matter experts and to learn more about their local coastal environment
- During Years 1 and 2, participating schools will be provided with additional learning resources while being guided by our project ecologists who will coordinate school visits to discuss marine ecology of the Eastern Bays. Activities will include but not limited to the use of App based platform such as Seek by iNaturalist, The Great Eggcase Hunt, The Great Penguin Box Challenge, Eastern Bays Ecosphere

¹⁵ <https://www.doc.govt.nz/Documents/conservation/native-animals/birds/nest-box-design.pdf>, accessed 10/06/2021.



Te Ara Tupua Alliance
Shifting gear to connect past, present and future



Figure 11.2 Emma Moodie from Ashburton Borough School standing beside a shorebird warning sign on the Ashburton River featuring her artwork. Image reproduced courtesy of Forest & Bird and Environment Canterbury.



Appendix A: Relevant consent conditions

Main consent condition	Relevant conditions under the main consent condition	
EM.1 In order to avoid or minimise adverse effects of the Project on Kororāand Shoreline Foragers, the Consent Holder shall:	(a) Seek dog control measures in accordance with Condition EM.2; (b) Prepare a Bird Protection Plan (BPP) in accordance with Conditions EM.3 to EM.3C; (c) Undertake Construction Works in accordance with Conditions EM.4 to EM.4D; (d) Deliver pest management in accordance with Condition EM.5; (e) Deliver the protection areas in accordance with Conditions EM.6 to EM.6E; (f) Deliver rubbish and waste management in accordance with Condition EM.7; (g) Complete reviews of the protection areas (Conditions EM.8 to EM.8C); (h) Complete a study of Tōrea Pango / Variable Oystercatchers (Condition EM.8D); and (i) Complete a public education awareness programme for avifauna in accordance with Condition EM.9. In relation to: (j) Pest management, the Consent Holder shall provide up to a maximum of \$60,000 to be used to implement the measures set out in the Pest Management Strategy; (k) The protection areas in Conditions EM.6B to EM.6E, the Consent Holder shall: (i) Provide up to a maximum of \$300,000 to be used to establish the protection areas (including, if required, the potential additional area in Condition EM.2(d)) in accordance with the BPP; and (ii) Provide up to a maximum of \$6,000 per year for the duration of the consents for the ongoing management of the protection areas; (l) The Tōrea Pango / Variable Oystercatcher study in Condition EM.8D, the Consent Holder shall provide up to a maximum of \$30,000; and (m) The public education programme in Condition EM.9, the Consent Holder shall provide up to a maximum of \$15,000. All the sums above include GST. The Consent Holder shall report to the Manager, Environmental Regulation and the Manager, Regulatory Services, Hutt City Council when the monies specified above have been allocated. Any monies not fully spent to the maximum sums above shall be allocated to ongoing management (including pest control) within the protection areas and/or the public educational campaign in Condition EM.9. <i>Advice note: The handling of protected wildlife will require permits to be obtained from the Department of Conservation under the Wildlife Act 1953.</i>	Covered below
<i>Dog control measures</i>		
EM.2 The Consent Holder shall within 12 months of the Commencement of Consent initiate the required statutory process to exclude dogs from:	(a) The foreshore and beach area of Rona Bay abutting Bishop Park protection area and running for the same length; and (b) The foreshore and beach area of Sorrento Bay from the southern end of the Sorrento Bay oystercatcher protection area and running to the northern end of the oystercatcher managed works zone. Should the dog exclusions over the foreshore and beach areas outlined above not be successfully delivered the Consent Holder shall: (c) Review the fencing options for the Bishop Park and the Sorrento Bay protection areas; (d) Develop and implement, in consultation with the Manager, Environmental Regulation and the Eastbourne Dunes Restoration Group, a revegetation plan (with the purpose to support the enhancement of the area for shorebirds through appropriate replacement of exotic plants (in particular marram grass) and planting for screening), install signage in accordance with Condition LV.7(k) and (l) and pest management in accordance with Condition EM.5 at the potential revegetation area which covers the areas of existing vegetation between the Rona Bay pier and the HW Shortt Park protection area; and (e) Investigate alternative dog control measures that may be available and the details of any enforcement or compliance measures that may be implemented, and report back to the Manager, Environmental Regulation and the Manager, Regulatory Services, Hutt City Council.	Section 5
<i>Bird Protection Plan</i>		
EM.3	The Consent Holder shall prepare a BPP and submit this to the Manager, Environmental Regulation for certification in accordance with the requirements of Condition GC.5 .	This document



Main consent condition	Relevant conditions under the main consent condition	
EM.3A	The purpose of the BPP shall be to as far as reasonably practicable avoid, but otherwise minimise, adverse effects on Kororā and Shoreline Foragers in the Project area and adjacent areas (including existing revetment, the coastal edge running along the length of the Project area and the bird protection areas set out in Conditions EM.6 to EM.6E). The objectives of the BPP shall be to: (a) Maintain or enhance the level of habitat and species diversity post-construction of the Project comparative to that existing pre-construction. (b) Maintain or enhance habitat for Kororā and Shoreline Foragers along the Eastern Bays coast comparative to pre-construction of the Project.	Section 1.2
EM.3B	The BPP shall be prepared by a suitably qualified and experienced ecologist in consultation with the Little Penguin Interest Group, Eastbourne Dunes Restoration Group, and the Mana Whenua Steering Group.	Section 1.6
EM.3C The BPP shall include:	(a) Nesting and construction measures (Conditions EM.4 to EM.4C); (b) Staff and contractor training requirements (as necessary and reasonable); (c) Suggested signage locations and content to be incorporated as appropriate within the BSUDPs under Condition LV.7 ; (d) Opportunities to avoid or further minimise effects on kororā and enhance kororā habitat through detailed design (through linkage to the CEMP in Condition GC.8), including: (i) Potential seawall design opportunities to restrict road access for kororās; and (ii) Potential rock rip rap design opportunities to include key holes for kororā nests; (e) A Pest Management Strategy (Condition EM.5); (f) A plan for works within 100m of a Shoreline Forager nest (Condition EM.4D); (g) The final boundary, fence design and details of the four bird protection areas to be established (Conditions EM.6 to EM.6E); (h) Rubbish and waste management (Condition EM.7); (i) A framework for a public education programme for avifauna (Condition EM.9); (j) Identification of important habitat for Shoreline Foragers including opportunities for screening or barriers at these areas as provided through Condition LV.7 ; (k) A description of measures to ensure the protection areas are appropriately managed and maintained to maximise opportunities for habitation by kororā and Shoreline Foragers for the duration of the consents; and (l) A summary of consultation in Condition EM.3B including a response to matters raised during consultation that have not been adopted and the reasons why.	Section 9.4.5
<i>Bird Protection Plan – nesting and construction measures</i>		
EM.4	Construction Works between 1 July and 31 January (the kororā breeding period) shall not occur within 10 m of any active nesting or moulting sites identified in Condition EM.4A .	Section 6.2.1
EM.4A The BPP shall contain measures to avoid or minimise adverse effects on kororā during construction, including:	(a) A staged process developed by a suitably qualified and experienced independent kororā expert for Construction Works in each bay to locate and protect active kororā within the construction area prior to the Commencement of Construction. (b) The staged process in (a) shall be detailed in the BPP but, unless (c) or (d) applies shall include: (i) Identification of areas within the bay and within the construction area that provide suitable kororā nesting habitat; (ii) Undertaking, within 5 working days of the Commencement of Construction in each bay, a penguin dog detection survey of any identified area in (i) to identify active nesting and moulting sites; (iii) Either complete Construction Works within the surveyed area in (ii) within 10 working days or ensure the surveyed area is secured from penguin access as soon as reasonably practicable and no later than 2 working days from the completion of the survey (unless an active nesting or moulting site is located, in which case access to that site shall be enabled and Condition EM.4 applies) until Construction Works within the area are completed; (iv) Twice weekly inspection of any kororā exclusion measures in (iii) and if any are found to be damaged, they shall be reinstated within 24 hours of the inspection unless it is unreasonable given weather conditions in which case they must be reinstated as soon as reasonably practicable; and (v) If repairs under (iv) are not completed within 24 hours, then the Consent Holder shall consult the penguin expert on the need for a new kororā Commencement of	Section 6.2



Main consent condition	Relevant conditions under the main consent condition	
	Construction. If the penguin expert determines that a Kororā ion survey shall be undertaken in accordance with (b)(i). (c) Where the penguin expert considers that the process in (b) would not result in the best outcome for kororā in a particular area or bay an alternative process may be provided which shall include an explanation as to why the process in (b) is not recommended to be followed. (d) A detailed description of any alternative process (or processes) available should a kororā detection dog not be reasonably available to undertake a survey in accordance with (b)(ii). (e) A detailed description outlining how any kororā encountered during survey or Construction Works will be managed (if required) in accordance with best practice. (f) A description of measures to ensure that formerly active nesting and moulting sites cannot be reoccupied during construction. (g) The GPS coordinates for all active nesting or moulting sites identified by the survey in (b)(ii) must be recorded and a picture taken and annotated with the location of the nest and the co-ordinates. This information must be provided to the Manager, Environmental Regulation within 5 working days.	
EM.4AA	An exclusion zone with a minimum 10 m radius must be established around any active nesting or moulting sites identified in Condition EM.4A while ensuring access to the ocean is maintained.	Section 6.2.1
EM.4B	The BPP shall contain a programme for monitoring kororā within or adjacent to the construction area during the Construction Works proportionate to the scale of the works in that area and the number of active nesting or moulting sites to determine whether any reasonably practicable steps can be undertaken by the Consent Holder during Construction Works to further reduce adverse effects.	Section 6.2..6
EM.4C	Any outcomes from monitoring under Condition EM.4B shall be applied, as appropriate, to future Construction Works by revising the BPP so that over time processes and responses to minimise effects on kororā are refined and improved. The results of the monitoring shall be provided to the Little Penguin Interest Group and the Manager, Environmental Regulation within 1 month of completion.	Section 2.4
EM.4D	(a) During the nesting season of any Shoreline Forager and no more than 10 working days prior to the Commencement of Construction, the Consent Holder shall engage a suitably qualified and experienced ecologist to undertake a Shoreline Forager nesting survey within the relevant construction area. (b) If any active Shoreline Forager nest in the relevant construction area is identified under (a), the Consent Holder shall engage a Project Ecologist to: (i) GIS locate and implement an exclusion zone around the nest location using rope or similar material; (ii) Advise whether or not the nest of the Shoreline Forager contains eggs or chicks; (iii) If it does contain eggs or chicks, advise on the management of Construction Works within 100 m of the nest, including: A. The use of specific machinery; and B. The use of specific minimisation measures and/or working practices; and (iv) Prepare a plan for works incorporating the matters in (iii) which the Consent Holder shall include in the CEMP under Condition GC.7. (c) If the oystercatcher nest located off the point between Sorrento Bay and Lowry Bay is confirmed by a Project Ecologist to be occupied by a breeding pair or the presence of eggs or chicks, then during November no Construction Works shall occur within 100 m of the nest while it is so occupied. If the nest is so occupied at other times of the year, Construction Works within 100 m shall occur under the advice of a suitably qualified and experienced ecologist as to the use of specific machinery and specific minimisation measures and/or working practices. (d) If the oystercatcher nest located off the point between Sorrento Bay and Lowry Bay in (c) has resulted in chicks being hatched, then no Construction Works within the oystercatcher managed works zone shall occur within the months of December and January unless a Project Ecologist has determined that the chicks have not survived or can fly. If non-flying oystercatcher chicks are present within the oystercatcher managed works zone during February, then Construction Works within the oystercatcher managed works zone shall occur only if a suitably qualified and experienced ecologist determines that work with specific machinery and specific minimisation measures and/or working practices can proceed without endangering the chicks.	Section 6.3
<i>Bird Protection Plan – pest management strategy</i>		



Main consent condition	Relevant conditions under the main consent condition	
EM.5 The Consent Holder shall prepare a Pest Management Strategy, to form part of the BPP, aimed at providing pest management in:	(a) Primarily, the four bird protection areas specified in Conditions EM.6 to EM.6E (and, if utilised, the potential revegetation area (Condition EM.2(d)) south of Bishop Park; and (b) Secondly, the adjacent Eastern Bays coastal environment affected by the Construction Works. The purpose of the Pest Management Strategy is to identify appropriate locations and types of pest management measures and opportunities to utilise the \$60,000 allocated in Condition EM.1, including working with existing pest management programmes in the adjacent Eastern Bay communities. The Pest Management Strategy shall as a minimum: (c) Identify times of year and locations where litter and pests may be an issue and link with Conditions EM.7 and LV.7, and (d) below; (d) Cover the full length of the Shared Path, with more intensive actions for the protection areas and any identified areas in (c); (e) Identify times of year to focus pest management (e.g., when chicks are hatching); (f) Include strategies describing how the applicant will engage and educate the community on the presence of birds and the impact of pests on these birds through signage and community outreach programs in Condition EM.9; and (g) Establish mechanisms to report annually during the period of pest management to the community and the Manager, Environmental Regulation on the success of the Pest Management Strategy. Any outcomes from reporting on the success of the Pest Management Strategy under (g) above shall be applied, as appropriate, to future pest management by revising the Pest Management Strategy so that over time processes and responses to minimise effects on coastal avifauna as a result of pest animals are refined and improved.	Section 7
<i>Bird Protection Plan – bird protection areas</i>		
EM.6 The Consent Holder shall establish, utilising the up to \$300,000 allocated in Condition EM.1 , protection areas at the following indicative locations:	(a) An oystercatcher protection area at Sorrento Bay (Condition EM.6B); (b) A penguin protection area at Whiorau Reserve (Condition EM.6C); and (c) Penguin and shorebird protection areas at: (i) Bishop Park (Condition EM.6D); and (ii) HW Shortt Park (Condition EM.6E).	Section 9
EM.6A The bird protection areas set out in Conditions EM.6C , EM.6D and EM.6E shall include:	(a) Opportunities to enhance kororā habitat within the protection areas, including providing and maintaining a minimum of 100 nesting opportunities across the three protection areas; and (b) Opportunities for Shoreline Forager nesting where suitable.	Section 8.4 and Sections 9.4, 9.5 & 9.6
EM.6B The Sorrento Bay oystercatcher protection area shall include the following:	(a) Fencing of the boundaries as specified in the BPP with a minimum standard to keep dogs out on the landward (road) side; (b) Screening, as appropriate, including through planting measures; (c) Pest management measures in accordance with the Pest Management Strategy provided under Condition EM.5; (d) A Planting Plan to outline areas of planting surrounding nesting opportunities, or the maintenance of vegetation-free areas as appropriate. The Planting Plan shall include as a minimum: (i) The species that are proposed to be planted, the size of the plants and the density of planting; (ii) A timeline for the completion of the proposed planting; and (iii) Details of the maintenance and management of the planting and management of pest plants; (e) Signage identifying the protection area and its values; and (f) Provisions as appropriate to respond to, and provide ecological resilience to, sea level rise.	Section 9.3



Main consent condition	Relevant conditions under the main consent condition	
	The following timeframes shall apply to the Sorrento Bay oystercatcher protection area: (g) Fencing and screening (as appropriate) must be completed within 3 months following the Commencement of Construction (see (a) and (b) above); (h) Pest management measures must be installed and be operational within 3 months following the Commencement of Construction (see (c) above); (i) Planting shall commence and be undertaken and completed in accordance with the timeframes specified in the Planting Plan (see (d) above); and (j) Signage must be installed within 3 months following the Commencement of Construction (see (e) above).	
EM.6C The Whiorau Reserve penguin protection area shall include the following:	(a) Fencing of the boundaries as specified in the BPP with a minimum standard to control dogs from accessing the protection area from the landward (road) side and a suspended rope barrier (or similar) allowing kororā to safely pass underneath on the seaward side; (b) Pest management measures, in accordance with the Pest Management Strategy provided under Condition EM.5; (c) A Planting Plan to outline areas of planting surrounding nesting opportunities or the maintenance of vegetation-free areas as appropriate. The Planting Plan shall include as a minimum: (i) The species that are proposed to be planted, the size of the plants and the density of planting; (ii) A timeline for the completion of the proposed planting; and (iii) Details of the maintenance and management of the planting and management of pest plants; (d) Signage identifying the protection area and its values; (e) Opportunities to enhance kororā habitat within the protection area in accordance with Condition EM.6A; and (f) Provisions as appropriate to respond to, and provide ecological resilience to, sea level rise. The following timeframes shall apply to the Whiorau Reserve penguin protection area: (g) Fencing must be completed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (a) above); (h) Pest management measures must be installed and be operational as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (b) above); (i) Planting shall be undertaken and completed in accordance with the timeframes specified in the Planting Plan (see (c) above); (j) Signage must be installed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (d) above); and (k) Detailed design of habitat enhancement for the kororā must be finalised, and nesting boxes must be installed, within 9 months following the Commencement of Construction (see (e) above).	Section 9.4
EM.6D The Bishop Park penguin and shorebird protection area shall include the following:	(a) Fencing of the boundaries as specified in the BPP with a minimum standard to control dogs from accessing the protection area from the landward (road) side (unless through a gated public access strip) and a suspended rope barrier (or similar) allowing penguins to safely pass underneath on the seaward side; (b) Pest management measures, in accordance with the Pest Management Strategy provided under Condition EM.5; (c) A Planting Plan to outline areas of planting surrounding nesting opportunities or the maintenance of vegetation-free areas as appropriate. The Planting Plan shall include as a minimum: (i) The species that are proposed to be planted, the size of the plants and the density of planting; (ii) A timeline for the completion of the proposed planting; and (iii) Details of the maintenance and management of the planting and management of pest plants; (d) Signage identifying the protection area and its values; (e) Retention of area(s) of marram grass located within the protection area; (f) Pedestrian accessways through the protection area at selected points; (g) Consideration of the presence of herpetofauna and maintaining areas of skink habitat within the protection area;	Section 9.5



Main consent condition	Relevant conditions under the main consent condition	
	(h) Opportunities to enhance kororā habitat within the protection area in accordance with Condition EM.6A; (i) Opportunities to enhance Shoreline Forager habitat, including wooden poles providing further safe roosting habitats; and (j) Provisions as appropriate to respond to, and provide ecological resilience to, sea level rise. In relation to the above matters, all plans for, and works undertaken within, the Bishop Park protection area shall ensure that erosion and wind-blown sand effects are avoided or minimised. The following timeframes shall apply to the Bishop Park penguin and shorebird protection area: (k) Fencing (including rope demarcation) must be completed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (a) above); (l) Pest management measures must be installed and be operational as soon as reasonably practicable but no later than 18 months following Commencement of Construction (see (b) above); (m) Planting shall be undertaken and completed in accordance with the timeframes specified in the Planting Plan (see (c) above); (n) Signage must be installed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (d) above); and (o) Detailed design of habitat enhancement for the kororā and Shoreline Foragers must be finalised and roosting measures must be installed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (h) and (i) above).	
EM.6E The HW Shortt Park penguin and shorebird protection area shall include the following:	(a) Fencing of the boundaries as specified in the BPP with a minimum standard to control dogs from accessing the protection area from the landward side and a suspended rope barrier (or similar) allowing penguins to safely pass underneath on the seaward side; (b) Pest management measures in accordance with the Pest Management Strategy provided under Condition EM.5; (c) A Planting Plan to outline areas of planting surrounding nesting opportunities or the maintenance of vegetation-free areas as appropriate. The Planting Plan shall include as a minimum: (i) The species that are proposed to be planted, the size of the plants and the density of planting; (ii) A timeline for the completion of the proposed planting; and (iii) Details of the maintenance and management of the planting and management of pest plants; (d) Signage identifying the protection area and its values; (e) Opportunities to enhance kororā habitat within the protection area in accordance with Condition EM.6A; (f) Opportunities to enhance Shoreline Forager habitat, including wooden poles providing further safe roosting habitats; and (g) Provisions as appropriate to respond to, and provide ecological resilience to, sea level rise. In relation to the above matters all plans for, and works undertaken within, the HW Shortt Park protection area shall ensure that erosion and wind-blown sand effects are avoided or minimised. The following timeframes shall apply to the HW Shortt Park penguin and shorebird protection area: (h) Fencing must be completed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (a) above); (i) Pest management measures must be installed and be operational as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (b) above); (j) Planting shall be undertaken and completed in accordance with the timeframes specified in the Planting Plan (see (c) above); (k) Signage must be installed as soon as reasonably practicable but no later than 18 months following the Commencement of Construction (see (d) above); and (l) Detailed design of habitat enhancement for the kororā and Shoreline Foragers must be finalised and roosting measures must be installed as soon as reasonably	Section 9.6



Main consent condition	Relevant conditions under the main consent condition	
	practicable but no later than 18 months following the Commencement of Construction (see (e) and (f) and above).	
<i>Rubbish and waste management</i>		
EM.7	The Consent Holder shall undertake a six-monthly rubbish clean up along the shared path and its adjacent beaches which will involve two staff and a vehicle proceeding along the Project area collecting litter for 1 working day for the duration of this consent.	Section 10
<i>Protection area review and reporting</i>		
EM.8	The Consent Holder shall engage a suitably qualified and experienced ecologist to undertake reviews of the establishment of each protection area in Conditions EM.6B to EM.6E within the timeframe set out in Condition EM.8A . The purpose of the reviews is to identify if there are reasonably practicable measures the Consent Holder could implement to optimise the intended habitat in each protection area for kororā and/or Shoreline Foragers (as relevant for the specific area) and if such measures are identified a timeframe for them to be implemented. Reasonably practicable in this condition relates to measures such as operational matters (including pest management timing/location within Condition EM.1(i)), design matters (such as improved signage or litter bin locations) and/or maintenance issues (such as replacement of damaged items or plantings) that can be implemented without additional consents. Reasonably practicable does not include the redesign and/or redevelopment of a protection area or the addition of new protection areas.	Section 9.7.2
EM.8A The reviews in Condition EM.8 shall be undertaken, and a report provided to the Manager, Environmental Regulation within 3 months of:	(a) 2 years from Commencement of Construction for the Sorrento Bay oystercatcher protection area (Condition EM.6B); (b) 2 years from the establishment of the Bishop Park and HW Shortt protection areas with regard to Shoreline Forager habitat (Conditions EM.6D and EM.6E); and (c) 5 years from the establishment of the Whiorau Reserve, Bishop Park and HW Shortt Park protection areas with regard to kororā (Conditions EM.6C to EM.6E).	Section 9.6.2
EM.8B	Any reasonably practicable measures identified in the report under Condition EM.8 shall be implemented by the Consent Holder. The Consent Holder shall inform the Manager, Environmental Regulation when the measures have been completed.	Section 9.6.2
EM.8C	The review for the Sorrento Bay oystercatcher protection area (Condition EM.6B) shall include any relevant information obtained up until that date from the Tōrea Pango / Variable Oystercatcher study under Condition EM.8D .	Section 9.6.2
<i>Tōrea Pango / Variable Oystercatcher study</i>		
EM.8D	The Consent Holder shall commission, utilising the up to \$30,000 allocated in Condition EM.1 , a Project Ecologist to lead a before and after study of Tōrea Pango / Variable Oystercatchers in the Project area (the Eastern Bays from Point Howard to Sunshine Bay and including Windy Point) including the influence of the Project on Tōrea Pango / Variable Oystercatchers and their behaviours. The study shall include recommendations (if any) in accordance with Condition EM.8C . The study shall be completed, and the results provided to the Manager, Environmental Regulation and made publicly available within 5 years of the Completion of Construction of the Project.	Not covered by BPP
<i>Bird Protection Plan - Education</i>		
EM.9 The Consent Holder shall carry out, utilising the up to \$15,000 allocated in Condition EM.1 , a public educational campaign aimed at recognising, protecting, and	The campaign shall: (a) Commence within 9 months of the Commencement of Consents; (b) Continue for a minimum of 5 years; and (c) Provide current information on Tōrea Pango / Variable Oystercatchers within the Project area and how to minimise or prevent risks and threats to oystercatchers in the Project area.	Section 11



Main consent condition	Relevant conditions under the main consent condition	
raising public awareness of avifauna in the Project area, including Tōrea Pango / Variable Oystercatchers.		

Appendix B: Record of Consultation

This Appendix provides a summary of consultation undertaken with stakeholders identified in Section 1.4 of this Plan, including a summary of comments received and a record of whether or not these comments have resulted in a change or addition to the Plan.

Date	Forum	Stakeholder	Comment	Response
16/03/2021	Phone conversation	LPIG (Sally Bain, MIRO)	Discussed the EBSP and the potential for HCC to collaborate with ERAT to fulfil pest management consent condition. Sally provided a summary of the ERAT project and discussed ideas for how EBSP predator management strategy funding could be used by ERAT to support local trapping efforts	Agreed to continue discussing ideas for HCC and ERAT to collaborate over pest control along the Eastern Bays coastline.
26/04/2021	Face-to-face meeting (3 hours)	LPIG (Mike Rumble)	Provided advice on appropriate plant species for the BPA planting plans, based on experience establishing the Day's Bay Penguin Haven. Provided advice on the relative merits of artificial wooden penguin nest boxes versus the construction of artificial rock mounds.	Planting plans revised to reflect heavy weighting towards plant species that have performed well at Day's Bay penguin haven. Artificial nest boxes adopted for use in BPAs, artificial rock mounds discarded (after further consultation with DOC, GWRC and John Cockrem)
26/04/2021	Face-to-face meeting (2 hours)	Darren Lees (Pest Animal Officer, Greater Wellington Regional Council)	Provided advice on a fit-for-purpose predator trapping regime to target nest predators of kororā and Tōrea Pango / Variable Oystercatchers. Strongly recommended investigating incorporating MIRO's ERAT trapping programme into the BPP's Pest Management Strategy	The Pest Management Strategy in this report was strongly influenced by Darren's advice, including HCC providing MIRO with additional financial support to continue the existing ERAT trapping programme.
26/04/2021	Email correspondence	LPIG (Mike Rumble)	Follow-up email message from Mike confirming some details regarding recommended plant species for kororā habitats in BPAs	Planting plan revised to reflect advice given (i.e., heavier weighting towards plant species that have performed well at Day's Bay penguin haven)
05/05/2021	Phone conversation (30 mins)	LPIG (Brent Tandy, DOC)	Discussed Brent's role in the review of the BPP, and Brent's preferences regarding plant species for the BPA planting plans and the relative merits of using artificial penguin nest boxes versus artificial rock mounds.	Brent's views concurred with those expressed by Mike Rumble on 26/4, providing additional support for the changes outlined in the response to Mike's comments.



Date	Forum	Stakeholder	Comment	Response
05/05/2021	Phone conversation (1 hour)	LPIG (Sally Bain, MIRO)	Discussed potential for MIRO to assist with the delivery of the Pest Management Strategy included in this plan, through MIRO's existing ERAT project. Sally was reasonably supportive of the idea but recommended getting in contact with Terry Webb (MIRO chair) to discuss. Sally provided a useful briefing on the ERAT project and its structure.	Had a follow-up phone conversation with Terry Webb on the 19/05 (see below)
19/05/2021	Phone conversation (1 hour)	MIRO (Terry Webb)	Discussed potential options for MIRO to assist with the delivery of the Pest Management Strategy in exchange for funding from HCC. Terry was positive about the idea and indicated that this would fit with MIRO's plans for the ERAT project (MIRO intends to continue the ERAT project indefinitely and plans to recruit a new project coordinator to replace Sally Bain, who has decided to step down from the role).	Pest Management Strategy has been designed based on the assumption that MIRO will deliver predator trapping along the Eastern Bays coastline and adjacent hinterland, to meet HCC's pest management consent condition. In exchange, HCC will contribute \$60K funding allocated to this condition to MIRO and will purchase additional DOC200 traps for the BPAs from the BPA construction budget.
21/05/2021	Email correspondence	LPIG (Brent Tandy, DOC; Mike Rumble) GWRC (Roger Uys)	Discussed the merits and pitfalls of creating a shorebird breeding area at the northern end of Bishop Park (suggested by John Cockrem). Unanimous agreement that habitat was too small and enclosed to be likely to be used by shorebirds; would likely be high maintenance and any birds nesting in the area would be at risk of depredation by domestic cats	Unanimous agreement to discard the idea of attempting to create a shorebird breeding area in Bishop Park.
02/06/2021	Face-to-face meeting (3 hours)	LPIG (Brent Tandy, DOC; Amelia Geary, F&B; Mike Rumble) *Roger Uys from GWRC also present	Brent, Amelia and Mike provided extensive feedback on draft designs of the BPAs, including the locations and designs of fences, signage and walking tracks, the extent of kororā habitats and foredune restoration areas, planting plans and the placement of artificial nest boxes. Unanimous advice to discard the idea of constructing rock mounds, shag pole roosts and a shorebird breeding area in Bishop Park.	Extensive revisions made to the BPA designs to incorporate the advice received.
06/07/2021	Email correspondence	MIRO (Terry Webb)	Terry communicated that the MIRO committee is happy in principle to assist with the delivery of the Pest	The Pest Management Strategy was revised to incorporate MIRO's requested changes.



Date	Forum	Stakeholder	Comment	Response
			Management Strategy in exchange for funding from HCC. Terry requested several minor changes to the Pest Management Strategy so that it aligns with MIRO's reporting schedule and financial requirements.	
21/06/2021	Memorandum	Mana Whenua Steering Group	Memorandum prepared by Caroline Van Halderen summarising points for discussion/consideration by the Mana Whenua Steering Group to guide future discussions and consultations	A number of the suggested opportunities for incorporating Mana Whenua values into the Bird Protection Plan were subsequently accepted/approved by the Mana Whenua Steering Group, and have been added to the Bird Protection Plan.
14/07/2021	Zoom meeting	Mana Whenua Steering Group	Nikki and Caroline gave a short presentation to the Mana Whenua Steering Group summarising the contents of the Bird Protection Plan. The presentation was well received, and members of the Steering Group suggested a number of minor changes and additions to the plan. The Steering Group also committed to carrying out a more detailed review of the plan (see below).	The BPP has been updated with several of the minor changes and additions suggested by members of the Mana Whenua Steering Group.
14/07/2021	Email correspondence	LPIG (Mike Rumble and Brent Tandy)	Mike and Brent carried out a comprehensive review of v7 of the Bird Protection Plan, and suggested a substantial number of edits, corrections, changes and additions	The BPP has been updated to include the majority of the edits and additions suggested by Mike and Brent.
28/07/2021	Email correspondence	Darren Lees (Pest Animal Officer, Greater Wellington Regional Council)	Darren reviewed v7 of the Bird Protection Plan and suggested some minor edits to both the Pest Management Strategy and Public Education Campaign.	Relevant sections of the BPP were updated to incorporate Darren's suggested edits.
06/08/2021	Email correspondence	Mana Whenua Steering Group (Raukura Maxwell)	Raukura provided a detailed peer-review of v7 of the Bird Protection Plan, on behalf of the Mana Whenua Steering Group. This review included a number of suggested edits and additions to the BPP to ensure that Mana Whenua values and tikanga are appropriately acknowledged, and that Taranaki Whānui is provided	V7 of the BPP was revised and updated to include the majority of the edits and additions suggested by Raukura.



Date	Forum	Stakeholder	Comment	Response
			with opportunities to be involved in the implementation of many of the management actions included in the plan.	
03/09/2021	Email correspondence	Hutt City Council (Janet Lawson, Assets Manager, Reserves)	Janet reviewed v7 of the Bird Protection Plan on behalf of Hutt City Council's Parks and Reserves team and suggested changes to both the Whiorau Reserve Bird Protection Area and the Public Education Campaign.	Relevant sections of the BPP were updated to incorporate Janet's suggested changes.
07/09/2021	Email correspondence	Eastbourne Dunes Restoration Group (Frank Vickers)	Frank reported that the EDRG has now disbanded following the death of group organizer David McDougall, and that they're not in a position to comment on the BPP in detail. Frank did mention that the EDRG's dune planting work at HW Shortt Park had now concluded, and mentioned that some of the native plantings have suffered from rabbit browsing and seawater inundation during high seas.	H.W. Shortt Park planting plan edited to make clear that existing native plantings should be retained and enhanced, and that new plantings of rabbit-palatable species should be protected using biodegradable plant protectors.
03/08/2022	Phone conversation	LPIG (Mike Rumble)	Briefed on new additions to the Bird Protection Plan and Mike confirmed his approval of the changes.	Confirmed inclusion of key-holes into revetment and fencing in areas with rock revetment into Bird Protection Plan
08/08/2022	Phone conversation	LPIG (Sally Bain)	Briefed on new additions to the Bird Protection Plan and Sally confirmed her approval of the changes.	Confirmed inclusion of key-holes into revetment and fencing in areas with rock revetment into Bird Protection Plan
11/08/2022	Email correspondence	LPIG (Amelia Geary and Brent Tandy)	Briefed on new additions to Bird Protection Plan. Amelia requested inclusion of an added detail and both confirmed their approval of changes	BPP updated to include Amelia's suggested addition to keyhole details

RELEASED UNDER THE LOCAL GOVERNMENT OFFICIAL INFORMATION AND MEETINGS ACT 1987





Audit and Risk Subcommittee

04 August 2025

File: ()

Report no: ARSC2025/4/219

Tupua Horo Nuku Update

DECISION MAKING CHECKLIST

This checklist is designed to assist report writers and decision makers to more easily understand and comply with the obligations of the Local Government Act, whilst providing a legal record of how the process was followed.

There are specific obligations in the Local Government Act 2002 for Council to consider a range of factors when making decisions. The Decision Making Checklist is applicable to all reports seeking a decision to CLT, Council, Committees or Community Boards.

For information on decision making powers and delegations, check Council's [Terms of Reference](#), the [Delegations Register](#) and [Functions and Delegations for Community Boards 2019-2022](#).

For information on Council's approach to determining the significance of proposals and decisions, and when it will undertake engagement and/or consultation on those matters, check Council's [Significance and Engagement Policy 2023-2027](#).

LEGISLATIVE REQUIREMENTS	Comments
Does this decision fit the purpose of local government by enabling local decision-making and action by, and on behalf of, communities; and promoting the social, economic, environmental, and cultural well-being of communities in the present and for the future ☒	

Does your report explain how the decision will promote the social, economic, environmental and cultural well-being of communities, and include reference to the relevant Council strategies covering these areas?	Yes	The report highlights environmental benefits (modal shift, reduced emissions), social benefits (safe shared path access), and financial risk mitigation through the Three Lane Closure Strategy. It aligns with the <i>Long-Term Plan 2024–34</i> consultation and Council's climate and resilience strategies
Have you identified, and assessed, all reasonably practicable options in your report?	Not applicable	Acknowledging the noting report
Guided by the <i>Significance and Engagement Policy</i> , does the report address the views and preferences of persons likely to be affected by or have an interest in the matter, and provide opportunities for engagement or consultation with those parties, e.g. youth, iwi?	Yes	The project was included in the Long-Term Plan 2024–34 consultation and is subject to ongoing community engagement before opening each bay. Further targeted engagement is underway to manage reputational risk regarding the lane closure strategy.
If the decision sought is significantly inconsistent with Council policy or plans required by legislation, does the report identify the inconsistency, reasons for it, and any plans to amend documents in order to accommodate the decision?	Not applicable	No inconsistency. The project aligns with the Long-Term Plan 2024–34 and existing resilience and transport strategies
Are you providing opportunities for Māori to contribute to decision making on this matter? Refer to Community Engagement Strategy and Contact the Tumuaki Māori	Yes	Mana Whenua engagement was part of the Long-Term Plan 2024–34 consultation and will continue as part of regular project updates and bay openings. No specific decisions in this report require additional Māori engagement beyond standard practice
OTHER CONSIDERATIONS		Comments
Does this report require specialist input (for example, advice from the Legal team, the Communications team, People and Capability, Finance, or Risk Management)?	Yes	Legal, Communications and Engagement, Finance, Major Project Steering Group
Health and Safety: Are there any health & safety implications or risks to others in making this decision? If so have these risks been assessed in accordance with the Health & Safety at Work Act 2015 and what actions may be taken to reduce the risk of harm?	No	Click here to enter text.

Purpose of Report

1. To provide an update to the Audit and Risk Subcommittee on the Tupua Horo Nuku, Eastern Bays Shared Path project, outlining key developments including schedule changes, financial considerations, and associated risks. The last update to this Subcommittee was provided in report ARSC2025/2/95 at its meeting held on 23 April 2025.

Recommendations

That the Subcommittee :

- (1) receives and notes the information;
- (2) notes that the approved Three Lane Closure Strategy is expected to mitigate financial risk from an extended timeline and avoid cost escalations beyond the approved budget through reducing the project duration by 26 weeks, bringing the forecast completion date forward to March 2026, and align delivery with the Ngā Ūranga ki Pito-One programme; and
- (3) notes that modelling indicates the revised approach will minimise the risk of additional preliminary and general costs by aligning delivery with Ngā Ūranga ki Pito-One and reduce cumulative public delays despite a slight increase in peak hour trip delays.

Background

2. Tupua Horo Nuku is a 4.4km project designed to improve network resilience by constructing new seawalls and a shared walking and cycling path along Marine Drive, between Ngau Matua | Point Howard and Eastbourne.
3. Since construction began in August 2021, the project has experienced delays and cost pressures due to the challenging coastal environment and surrounding residential setting. Under the current Two Lane Closure strategy, the completion date has moved from December 2025 to August 2026.
4. In response, Te Ara Tupua Alliance proposed a new strategy involving an additional lane closure to enable more work fronts simultaneously. This Three Lane Closure Strategy is expected to bring project completion forward by 26 weeks, align delivery with Ngā Ūranga ki Pito-One programme, and reduce Council's financial risk from an extended timeline.
5. Modelling by the Alliance indicates that the revised approach will:
 - a. Minimise the risk of additional preliminary and general costs if completion is after Ngā Ūranga ki Pito-One;
 - b. Bring the project end date forward to March 2026;

- c. Reduce cumulative public delays over the life of the project, despite a slight increase in peak hour trip delays.

Discussion

- 6. To enable implementation of the Three Lane Closure Strategy, a Section 127 amendment to the existing Resource Consent was lodged in May 2025 and approved on 9 June 2025, following completion of the required peer review. The four-week turnaround was achieved through early engagement and transparent, coordinated communication between the Alliance, Council officers, and regulatory stakeholders.
- 7. The approved Three Lane Closure Strategy came into effect on 4 August 2025 and will remain in place through to January 2026. At any given time, a combined length between 700 and 1,400 metres may be under lane closure, depending on the specific stage. Temporary Traffic Management will be adjusted as needed throughout the period to ensure safe and efficient delivery throughout the period.
- 8. A targeted communication and engagement strategy began in late July to inform the community of the additional lane closures. The strategy aimed to reach a broad cross section of Marine Drive users and the wider Eastern Bays community. Delivery was coordinated across multiple channels, including social media, project newsletters, direct engagement with the Eastbourne Community Board, and updates provided to elected members. To date, there have been no reports of extended delays or significant negative community feedback in response to the changes.
- 9. In response to ongoing community input, the project team is revisiting the design to propose additional access points through the concrete buffers that separate the shared path from the carriageway. This aims to enhance accessibility for users of wheelchairs, prams, and other mobility or wheeled devices, ensuring safe and convenient entry to the shared path at appropriate locations.

Progress

- 10. The project is 74% complete based on cost, up from the 61% reported in April.
- 11. A comparison of programme completion dates under both the existing Two Lane Closure strategy and the proposed Three Lane Closure strategy is in Table 1 below.

Table 1: Two Lane Closure and Three Lane Closure Comparison

Bay	Original Completion	Forecast (status quo)	Forecast (Three Lane Closures)
Nga Matau/Point Howard	Mar-25	Aug-26	Jan-26
Whiorau / Lowry Bay	Jan-26	Apr-26	Mar-26
York Bay	Jan-25	Jan-25	Jan-25

Māhina Bay	May-26	Apr-26	Mar-26
Sunshine Bay	Apr-24	Jan-26	Sep-25
Mā-koromiko/Windy Point	Oct-23	Oct-23	Oct-23

Options

12. This report is intended for informational purposes only, and therefore no options are included.

Risks Update

13. There are several current risks of note for the project that are identified below:

Eastern Bays Sewer Main – The southernmost section of work has been deferred due to the continued presence of kororā (little blue penguins) and the need to align with future sewer main works at Māhina Bay. Completion remains within the overall project programme

Mahina Bay – Wellington Electricity has commenced construction of the permanent overhead power cable solution. The new location of some poles has been disputed by residents and pole location are being worked through by the Alliance with the residents concerned and Wellington Electricity.

Ngau Matua/Point Howard – Challenges, impacts and recommendations to ensure full delivery of the shared path in the bay, following the Centreport oil pipeline upgrade works, have been put forward by the Alliance and are currently under review by officers.

Programme dependency – The Project schedule must meet completion at a similar time to the Ngā Uranga ki Piti One Project to avoid incurring additional costs.

Reputational Risk – While some public concern is anticipated regarding the proposed Three Lane Closure Strategy effort has been made to clearly convey the benefits, particularly earlier project completion and a shorter overall disruption period. Delay times will be closely monitored and reacted to if delays exceed allowed tolerances.

Regulatory Compliance – Approval has now been granted via the Section 127 amendment to the resource consent, allowing adjustments to Temporary Traffic Management conditions, including an increase to the allowable trip delay threshold beyond the previous 5-minute limit.

Breeding Season – The forthcoming breeding season for kororā (Little Blue Penguin) and tōrea (Variable Oystercatcher) is planned for but could cause unexpected impacts to project delivery timelines.

Further challenges – The use of cofferdams has proven effective in excluding tidal influences, while temporary causeways on the seaward side have enabled construction to progress with minimal disruption to live traffic

lanes. Seasonal weather conditions, particularly heavy rainfall associated with winter, continue to present operational challenges.

Climate Change Impact and Considerations

- 14. The matters addressed in this report have been considered in accordance with the process set out in Council’s Climate Change Considerations Guide.
- 15. The increased resilience outcome of Tupua Horo Nuku will help to enhance Lower Hutt City’s resilience to climate change.
- 16. The construction of the shared path is intended to promote a modal shift to cycling and walking, leading to an expected long-term reduction in vehicle emissions

Consultation

- 17. The Tupua Horo Nuku project was included in Council’s Long Term Plan 2024-34 consultation.
- 18. Ongoing and relevant consultation is conducted as usual practice before the opening of any of the six separate bays.

Legal Considerations

- 19. Covered by Project Alliance Agreement (PAA) with specific advice sought via Council legal, where and if necessary.
- 20. The Three Lane Closure Strategy is expected to mitigate additional preliminary and general costs by aligning completion with Ngā Ūranga ki Pito-One, avoiding potential overruns.

Financial Considerations

- 21. Table 2 shows the actuals to June 2025 and Annul Plan 2025/26. Spending as of 30 June 2025 on the Project is \$64.6M, representing 74% of the project budget. Grant and subsidy received is \$39.2M, representing 71% of the project budget.

Table 2: Actual and Annual Plan

\$ Million	2022-25 Actual	2025-26 Annual Plan	Total 2022-26
Capex	64.60	17.24	81.83
Revenue	(39.20)	(16.28)	(55.48)
Net HCC Cost	25.40	0.96	26.36

Appendices

There are no appendices for this report.

Author: David Kennedy
Transport Project Manager

Reviewed By: Paul Hewitt
Head of Transport

Reviewed By: Lucie Desrosiers
Head of Urban Development

Approved By: Jenny Livschitz
Group Chief Financial Officer

RELEASED UNDER THE LOCAL GOVERNMENT OFFICIAL INFORMATION AND MEETINGS ACT 1987