

Technical Report 23

Boffa Miskell Limited – Urban Design Assessment

URBAN DESIGN

ASSESSMENT OF EFFECTS ON THE ENVIRONMENT

WELLINGTON INTERNATIONAL AIRPORT RUNWAY EXTENSION
FINAL MARCH 2016



WELLINGTON INTERNATIONAL AIRPORT LIMITED

AIRPORT RUNWAY EXTENSION

ASSESSMENT OF URBAN PLANNING AND URBAN DESIGN EFFECTS

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1 Introduction

1.1 Purpose and Scope of this Assessment

The following is an assessment of the urban planning and urban design effects (AEE) associated with the proposed Wellington International airport runway extension project. The AEE has been prepared to address the requirements of the Resource Management Act (1991) (RMA). **Figures 1 to 17 of Attachment 1** form part of this AEE.

The reasons for undertaking this assessment are:

- Aspects of the Project will have a bearing on local amenity values, the quality of the environment, and the efficient use of natural and physical resources which are matters of interest under the RMA [see 1.2 below];
- There is policy within relevant planning documents that reference the expectation of urban design outcomes that need to be considered;
- Although technical reports by other specialists will address some of the above matters (such as the landscape, social and economic effects in regards to amenity or the quality of the environment), it is the collective interaction of these factors on the urban environment that this urban planning and design assessment is also addressing; and
- Some perspectives on the proposal are different when viewed by different disciplines – for example, the possibility of engineering a tunnel extension to allow for access beneath the runway allows for the unobstructed and safe movement of airplanes above – but may be negative from an urban design perspective if that tunnel does not provide for comfortable cycling and walking activity around the coast. This assessment can provide for different perspectives to be given to some of the proposed runway extension's effects.

1.2 Urban Planning and Design and the RMA

The terms 'urban planning' and 'urban design' are not used in the RMA. However, there is a correlation between requirements of Part 2 of the RMA (Purpose and Principles) and urban planning and design matters associated with the proposed airport runway extension. These are cross-referenced in the table below. It is noted that only those provisions of the RMA that relate to urban planning and design are addressed in the table - there are many other RMA matters which will be addressed by other technical reports for the proposed runway extension.

Table 1 RMA and proposed Expressway Urban Planning and Design Correlation

RMA Part 2	Urban Planning
<p>Section 5 Purpose</p> <p>(1) The purpose of this Act is to promote the sustainable management of natural and physical resources.</p> <p>(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—</p> <p>(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and</p> <p>(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and</p> <p>(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.</p>	<p>The overarching consideration of people and communities providing for their social, economic, and cultural well-being and for their health and safety whilst sustaining resources, safeguarding life supporting elements, and avoiding, remedying or mitigating effects</p>
<p>Section 6 Matters of national importance</p> <p>In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:</p> <p>(a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development:</p> <p>(b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:</p> <p>(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:</p> <p>(d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers:</p> <p>(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:</p> <p>(f) the protection of historic heritage from inappropriate subdivision, use, and development:</p> <p>(g) the protection of protected customary rights</p>	<p>Access to and along the coastal marine area is an aspect of accessibility and connectivity that is relevant to urban planning.</p>

<p>Section 7 Other matters</p> <p>In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to—</p> <p>(a) kaitiakitanga:</p> <p>(aa) the ethic of stewardship:</p> <p>(b) the efficient use and development of natural and physical resources:</p> <p>(ba) the efficiency of the end use of energy:</p> <p>(c) the maintenance and enhancement of amenity values:</p> <p>(d) intrinsic values of ecosystems:</p> <p>(e) [Repealed]</p> <p>(f) maintenance and enhancement of the quality of the environment:</p> <p>(g) any finite characteristics of natural and physical resources:</p> <p>(h) the protection of the habitat of trout and salmon:</p> <p>(i) the effects of climate change:</p> <p>(j) the benefits to be derived from the use and development of renewable energy</p>	<p>Efficient use and development of resources is good urban planning practice</p> <p>Amenity values means the qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes</p> <p>Quality of the environment includes a range of attributes that relate to the urban environment including but not limited to amenity, accessibility and connectivity</p>
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2 Existing Environment

2.1 Land Use and Built Environment

The coastal edge environment transitions from open and urban to more natural and steep at the point of the airport (refer **Figures 1 and 2**). The principal land uses and buildings in the immediate area of the airport runway extension are:

- The airport and existing runway itself (to the north) which includes open car parking areas, large hanger and commercial buildings (zoned Airport in the Wellington City District Plan);
- A coastal edge and small bay extending east toward Moa Point (Hue-te-taka) which includes a beach, rocky outcrops and low vegetation up to Moa Point Road (zoned Open Space B in the Wellington City District Plan);
- Moa Point sewerage treatment plant and large utilitarian structures on the lower slopes of the south coast escarpment immediately to the east of the airport (zoned Airport in the Wellington City District Plan but with a designation [#58]);
- A small enclave (approx 20) one and two storey houses immediately to the east of the airport at the toe of the south coast escarpment (zoned Outer Residential in the Wellington City District Plan);

The area to the west and south of the runway extension is the open water of Lyall Bay (Hue Te Para) and Cook Strait.

Further away from the immediate surroundings of the runway extension is the hilltop residential area (zoned Outer Residential in the Wellington City District Plan) which sits above and to the north east of the airport on the Orongo Ridge (Kekerenga and Ahuriri Streets).

Across Lyall Bay from the extension is residential and commercial development including cafes and larger scale (two storey) warehouses and retail buildings which typically face onto the Lyall Bay Parade or the streets that connect to it. The Lyall Bay promenade is itself a popular recreational space.

The Lyall Bay Beach is a popular swimming, dog walking and surfing/kite surfing area. The surfing area in “the Corner” where the current airport runway meets the curve of Lyall Bay Beach is popular (refer to **Figure 5**). The Assessment of Effects on Recreation (Tourism Resource Consultants) provides further detail on the range of recreation activities undertaken in the bay.

The smaller beach to the east of the airport in front of the enclave of houses is also used for recreational activities including dog exercise, beachcombing and by residents opposite as an informal meeting space. Observations regarding the uses of the smaller beach are also described in **Figure 5**. The road itself is popular with cycling and jogging (footpath on east side) and the observations in Figure 5 show many of these movements. Plane watching also appears popular with some people watching from the edge of Moa Point Road on the long stretch on the west side of the runway.

2.2 Movement Networks

The principal street/road system in the immediate area of the airport runway extension is Moa Point Road which generally follows the form of the coastal edge. The two lane road connects east to Breaker Bay Road which continues to wind around the south coast edge. Moa Point Road extends west and then north and prescribes the western side of the current airport runway.

Moa Point Road enters an underpass beneath the current runway and is a popular route for recreational users (cyclists, runners, sight-seeing and beach trips) as well as to connect suburban centres and residential properties around the south coast. Counts in the order of 100 cycles on Saturday morning (9-10am) were recorded on Moa Point Road on the east side of the tunnel. On a weekday morning (7-8am) some 40 cycle movements are recorded here. The Transport Effects Assessment describes the movement network in further detail. Observations regarding the uses for recreational movements (cycling/walking/running) are described spatially in **Figure 5**.

The road is informal in its treatment (no curb and channel or sumps) to the east of the airport and becomes more formal from the underpass west towards the more urban Lyall Bay. The access around the coastal southern edge of the airport is restricted (refer to **Figure 6**)

The closest north to south connecting road which extends across the peninsula from the north coast (Evans Bay) to the south coast (Moa Point) is through the airport land on Steward Duff Drive. This is not a public road, but the gate system allows for public movements at no charge. Steward Duff Drive is a popular route given this relatively direct connection and the turn at the intersection of Moa Point Road and the airport road is relatively busy (end of day peak in the order of 150 vehicles per hour almost all of which turning west).

Moa Point Road is also part of the south coast bus route. Buses operate on a weekday schedule only and at peak times run every 25 minutes.

2.3 Landform

The relatively (for Wellington) flat landform has been influential to the resultant landuses and built environment. The airport sits at the transition where the flatter isthmus of land that connects Kilbirnie to Miramar rises to form the Miramar Peninsula (refer **Figure 2**). As a consequence the land form west of the airport is relatively flat (although historically dunes were removed to make way for the airport itself and the suburb of Rongotai) and to the east is a steep escarpment (refer to **Figure 4**).

The flatter land has enabled urbanisation and a supporting orthogonal street network. The steeper land has seen little development on the escarpment, but the development of the ridgeline above. Moa Point Road winds along the coastline where the flatter platform of beach has enabled it and in places enclaves of buildings sandwiched between the escarpment and the road to the front.

2.4 Heritage

There are no listed heritage sites affected by the proposed runway extension but some remnant buildings and current landuses can be referenced back to several historical periods. Maori sites of significance are located on points around the area. A Cultural Values Report (Raukura Consultants) describes in detail the Maori cultural heritage values associated with the area.

Coastal Defences

New Zealand has had two significant periods of threat during times of war. In response to the threat of a Russian invasion, the late 1880's saw several gun battery installations around the Wellington Coast including the Halswell battery at Miramar Peninsula. In the late 1930's new defences were added including at Fort Dorset (Seatoun) and Palmer Head, above Moa Point. The concrete shell of

the radar station above Moa Point and part of the original sealed access road remain visible today.

Air Travel

The airport itself has been a significant part of the history of development in the city and the urbanisation of the land between Kilbirnie and Miramar. The airport in Wellington (like those in other main New Zealand cities) has enabled overseas travel from New Zealand to the world and opened up opportunities for quicker trade and migration. In 1929 Wellington City Council designated 30 hectares of Rongotai for an aerodrome. Originally only 350 metres in length the runway has progressively and incrementally increased since. After five increments of extension the runway has extended to over 2000 metres.

Urbanisation

The development of Wellington's suburban centres followed the advent of public transport. The tram line extended to Lyall Bay by 1911 and with that came much of the housing evident today. An interesting event for the area was the New Zealand Centennial Exhibition which took place over six months from November 1939 until May 1940 (refer to **Figure 7**). It celebrated one hundred years since the signing of the Treaty of Waitangi. 2.6 million visitors attended the exhibition over the 6 months. The site is now occupied by Rongotai College and sports grounds.

3 Project Description – General Design

The Construction Methodology Report¹ describes the different components of work that will be carried out to extend the runway. It will consist of runway platform over a reclaimed area of the coastal marine area. **Figure 8** is a composite plan of urban and landscape design features which will be provided for in association with the runway extension. These features will be public and continuing discussions with Wellington City Council (typically the owners and managers of the land described) will ensure that these are designed and implemented in a form which is appropriate for the coastal environment and weather extremes. This includes considerations as to maintenance.

Provision will be made for a new shared (walking and cycling) path of about 3m width along the west side of the straight section of Moa Point Road to a new lookout point at the existing breakwater. The new path will extend from the lookout point to the corner of Lyall Bay Parade (refer to **Figure 9**). The pathway will have associated seating areas as well as platforms that step down towards the water to provide viewing spots. Car parking bays will be provided in short sections along the edge. These will be located between the new path and the road (refer to **Figure 10**).

The breakwater area will be reworked to provide a lookout area and associated amenities such as seating (refer to **Figures 11 and 12**). The integrity of the breakwater to continue its functions will be maintained. In times of heavy seas the breakwater outer areas will be inaccessible (as it is now) and signs will provide warning to users.

At the Moa Point side of the runway it is proposed to reinstate a beach form in the corner where the runway meets the existing beach (refer to **Figures 13 and 14**). This will include enhanced ecological habitat for colonisation by marine life. A gateway landform in conjunction with the landscape treatment at the beach will also be introduced at the intersection of the Stewart Duff Drive and Moa

¹AECOM (29 Sep 2015) *Wellington Airport Runway Extension: Construction Methodology Report*

Point Road (refer to **Figure 15**). The gateway landscape incorporating directional signage will address the currently unresolved left over spaces at this point of transition from the airport to the coastal edge. There are opportunities to work with iwi to develop a gateway landscape with reference to cultural values in the wider area.

The underpass (refer to **Figure 16**) that connects from the west to east side of the runway will be extended to the east with either a new separate bridging structure, or extension of the current underpass. The space within the underpass will be lit with brighter lights to improve the visibility of users (especially cyclists) to vehicular traffic.

Figure 17 provides a palette of indicative materials, forms and plant types that can be used in the implementation of the urban and landscape features. These are typically robust materials and hardy plants that can withstand the coastal environment conditions.

4 Urban Design Policy Assessment

There are policies in planning documents that are of some relevance to the assessment of effects of the runway extension. These are identified as:

- New Zealand Coastal Policy Statement (2010) [NZCPS]
- Regional Policy Statement for the Wellington Region (2013) [RPS]
- Regional Coastal Plan for the Wellington Region (2000) [RCP]
- Wellington City District Plan (2000) [WCDP]
- South Coast Management Plan (2002) [SCMP]
- Proposed Natural Resources Plan for the Wellington Region [NRP]

The objectives and policies from the above planning documents summarised below and details attached (**Attachment 2**). It is noted that there is no specific urban design policy for consideration for the airport runway extension. The District Plan's Airport Precinct zone itself has no specific urban design policy. There is a catch-all [objective 10.2.5]

10.2.5 To protect the amenities of areas surrounding, and within, the Precinct from adverse environmental effects.

However, the subject proposal is more an extension outside of the Airport Precinct zone than it is a development within it. It is noted however that the land, once it is created by reclamation, is likely to be zoned Airport Precinct in the future.

The regional plans which provide the best coverage of the actual footprint of the airport extension by virtue of its being into the coastal marine area are typically more focussed on natural environment resource management than the built environment.

Given the above less specific policy focus on urban design, the assessment discussion below addresses the urban planning and urban design elements of these objectives and policies with a focus on connectivity to the coast and fit with context. The natural character and landscape value direction of these objectives and policies (which are the far greater focus of these policy documents as they apply at the subject location) are addressed in the Landscape and Visual Effects Assessment.

4.1 Connectivity to the Coast

There is a strong and consistent message from the objectives and policies NZCPS, NRP, RPS, RCP, WCDP and SCMP that there should be public access to and along the coast. However, in respect of public open space and recreation opportunities the access to the coast is already restricted by the current runway and the inaccessible form of the large rock placed to protect it from the sea. The land at the end of the current runway is also a restricted area for airport operational reasons (refer **Figure 6**).

There is recognition in the objectives of the NZCPS (Objective 4) that there may be exceptional reasons as to why it is not practicable to provide access and seeks, in that case, that alternative access to the coastal marine area should be provided. This recognition of exceptions and an offset of mitigation by alternative access is repeated in the NRP (Objective 10 and Policy P9). The airport continues to need operational protection for the airport to function and therefore it will be impracticable to allow access near to the runway where security could be an issue.

It is proposed to improve access along the coast from that provided currently by extending a shared path (wide enough for both walking and cycling combined) along the edge of Moa Point Road on the western side. A new path along the edge of the existing Moa Point Road berm (currently rock riprap) will provide additional amenity connecting to Lyall Bay Parade. This extension will effectively add new amenity and increase the quality of the public open space of the bay and fits with the NZCPS (Policy 18, 19).

Access will also be provided for on the eastern side of the runway extension from a new bay coastal landscape with a 'rock hopping' type path. The path will not be flat, but use placed steps of rock/concrete to provide an access only for fully able users given the more natural landscape on the east side of the runway. There are safety reasons for not extending the path around the complete perimeter of the runway extension. The end of the runway will be subject to extreme conditions in large wave events and airport security is also a concern.

The policies (Policy 6) of the NZCPS, NRP (Objective O12), RPS (Objective 10) recognise that provision of infrastructure in the coastal environment is important to the social, economic and cultural wellbeing of people and their communities. The airport is considered to be such an infrastructural asset to the city and the runway extension provides an important role for the city's social and economic and cultural wellbeing. The airport and its increased capability provides for improved connectivity both nationally and internationally for people to maintain social connectedness, business and trade and to allow cultural exchange between New Zealand and the world.

4.2 Form Scale and Fit with Context

The form of reclamation is recognised as a consideration for development in the coastal environment by the NZCPS (Policy 10). The RCP (Policy 4.2.2) also recognises that there is a distinction to be made between the areas which retain natural character and areas where that character has already been compromised.

The shape of the reclamation and the material used needs to be considered in relation to the coast and its character and that this has been altered significantly by the existing airport runway. The proposed form of the reclamation for the runway extension reflects the function of the airport and the armouring of the edge with an interface with the sea is required to be robust sufficient to withstand the strong forces of storms and wave action. Large accropods are proposed as the

external facing of the reclamation and the runway itself will have an asphalt surface and grassed berms.

The proposed runway reclamation cannot practicably be shaped or reduced in scale to generate a more natural coastal edge, the like of which is present in the bays of the south coast. The depth of water at the outer edge of the reclamation and the extent of additional reclamation that would be required to 'naturalise' the form is not practicably achievable and would only increase the footprint of the extension and its effects.

The design concept for the reclamation is to adopt a shape that is simple and linear in its form. This linear form reflects the function as a runway. The proposal is to emphasise the linearity of the extension by treating it as an extension of the existing runway and to be seen as projecting deck or wharf into the bay.

On the west, more urban side, the existing airport runway has formed a straight edge projection into Lyall Bay and the proposal is to continue this line. Because the runway sits at the interface to the more urban Lyall Bay and the more natural edge of the south coast to the east the treatment of the form varies from one side to the other.

On the east side there is an opportunity to rectify a currently poor connection between the existing airport reclamation and the beach and to extend a new curved beach line to reinstate a higher level of visual amenity and reinforce the landscape and ecological values of the east side of the airport. This approach is reflective of policies of the NZCPS (Policy 14) and WCDP (Policy 4.2.9.3).

5 Urban Design Guidance Assessment

There are urban design 'guidance' or strategic documents that are of relevance to the assessment of effects of the runway extension. These documents have no direct statutory weight unless they can be considered as Other Matters under s104RMA, but assist in providing a broader context for the national and local aspirations for urban design outcomes from development change at the airport.

In particular these are:

- Urban Design Strategy for Wellington City (1994)
- New Zealand Urban Design Protocol (2005)

Comment is provided in respect of these documents below.

5.1 Urban Design Strategy for Wellington City (1994)

The strategy is dated (some 20 years old), but the analysis of the city it presents and the initiatives proposed remain relevant to the consideration of many of the city's development projects. Some of these initiatives have been implemented (Jervois Quay, Bus/Rail Exchange and Chews Lane) and some continue to be pursued (Parliament Harbour Link).

One of the "Link" initiatives in the Strategy is the Airport Gateway. The strategy focuses on the northern entrance to the airport on Calabar Road, but also recognises the opportunity to review environmental improvements in coastal areas between Lyall Bay and Moa Point. It is not clear what

the intention is of the strategy in this regard as it is not explicit, but the proposed runway extension and with bay improvements can generate a south coast 'gateway' at the node where the airport through road (Stewart Duff Drive) connects to Moa Point Road (refer to **Figure 15**). This is part of the proposal as described above.

5.2 Wellington Urban Growth Plan (Draft) (2014)

This plan, currently in draft, is a high level document that incorporates a range of urban planning principles and actions that are directed toward achieving a certain urban form and functions for the city. Spatially this form is for a growth spine with a 'node' at the south end focussed around Kilbirnie and at the north end a node at Johnsonville. The transport system, densities of development and various public projects are driven by the planned spatial form. The airport is an integral part of this urban growth plan and the extension to the airport in the location where it is (i.e. it is important to the principle of the city as having a compact urban form) is recognised as one of the public projects that can contribute to the success of the growth plan.

5.3 New Zealand Urban Design Protocol (2005)

The New Zealand Urban Design Protocol is a set of qualities that together comprise good urban design. Signatories to it (which include local governments, including Wellington City Council, developers, and design professionals) commit voluntarily to the protocol.

The Urban Design Protocol identifies seven essential design qualities that together create quality urban design:

- Context: seeing buildings, places and spaces as part of whole towns and cities
- Character: reflecting and enhancing the distinctive character, heritage and identity of our urban environment
- Choice: ensuring diversity and choice for people
- Connections: enhancing how different networks link together for people
- Creativity: encouraging innovative and imaginative solutions
- Custodianship: ensuring design is environmentally sustainable, safe and healthy
- Collaboration: communicating and sharing knowledge across sectors, professions and with communities.

These Seven "C"'s are addressed within the Assessment of Effects in section 6 below.

6 Runway Extension Effects Assessment

6.1 Context

The context of the airport is described in section 2 of this assessment.

Urban Form

The airport is influential within the city's urban form. The airport is conveniently close to the city's centre and the catchment of both business people and residents using it. The airport's position has long influenced decisions on the city form and growth.

This influence includes planning of transport infrastructure and the way in which land uses have transitioned around the airport with buffers to the east (golf course) and the interface with residential properties to the west (Bridge Street).

The decision to retain the airport in the current location is one that has been cemented each time it has been considered. The convenience it represents to the city as a compact form is significant providing quick and easy access to the city centre and the user catchment. Continuing to develop the airport, and as part of this the runway extension, is consistent with the planned urban form of the city and its projected growth in nodal centres (at Kilbirnie) and transportation network. As noted above (section 5), the airport in the subject location is an integral part of the (draft) Wellington City Growth Plan (2014).

In a physical and topographical sense the airport has been influential to the environment in which it has been located. The change to the natural environment that existed (coastal dunes and curving bay form) has been dramatic (refer to **Figure 7**). The establishment of the airport in 1929 was within the context of an already growing residential suburb. Successive extensions or changes have occurred within that context and various adjustments have been made to accommodate the airport's operation over time. These adjustments include the acquisition of houses on Bridge Street by the airport in agreement with owners to address changes in the noise environment from the airport's operation, and relocation of the heritage Aero Club building to Lyall Bay Parade for reuse as a cafe to allow for airport activities to expand to the west.

The primary effects on the context from the extension are those into the coast/public open space and effects on the character of the coast and its use, as well as to the residential enclave on Moa Point Road.

Residential Enclave Context

The effects of the airport runway extension on the adjacent residential enclave of Moa Point Road are the most significant of the effects on landuses in the area. The amenity of this location as a living environment will be reduced due to the scale of change of the outlook from these residential sites. The Landscape and Visual Effects Assessment describes these effects in further detail. Noise effects are addressed by the Noise Effects Assessment.

The ability to mitigate the adverse effects on these residential properties is limited given the immediacy of the runway extension in relation to the buildings. Effects generated from the construction of the runway extension could be mitigated by temporary relocation of residents, or longer term mitigation may be able to be achieved through acoustic insulation.

However, to address the effects on the existing residential properties and the people living in these houses, there are limitations to what can be realistically achieved. Property purchase is a possibility if this can be agreed between owners and WIAL.

If the land where the current residential properties was to transition over time to other uses (such as by WIAL acquisition of the houses by purchase over time from willing sellers as has occurred at Bridge Street on the west side of the runway) there is the potential for this land to become open space or for ancillary airport activities. Any changes in land use may require a zone change in due course to enable alternative activities to be developed over time.

Open Space Context and Character

The zoned open spaces of the coastal edge are affected by the runway extension to the extent that the development will impact on the beach to the east and the land currently zoned open space off the end of the current runway. There are opportunities to improve the values of the open spaces from that existing currently. Although not land as such, the open sea also provides an amenity that is in relatively small part lost from the footprint of the reclamation.

The runway extension presents an opportunity to enhance the beach interface with the runway extension and improve on the visual and ecological values of the east side of the runway extension. A beach reinstatement with rocky shore that can be colonised by seaweeds, allows a better habitat for fish and other marine life. The positioning and materiality of rock and accropod elements can be used to promote improved ecological performance in the beach and bay. This is supported by the Ecological Effects Assessment.

The open space values of the Lyall Bay side of the runway extension can be enhanced through the addition of improved walking access and connections to the Lyall Bay Parade. The development of a shared (walking and cycling) pathway along Moa Point Road alongside the western straight sided edge to the airport on the west side would add significantly to the open space experience of Lyall Bay.

The form of the runway extension itself and its fit within the existing environment has been discussed in section 2 of this assessment. There are no feasible opportunities for the entire runway extension to be formed as a natural coastal edge as this would require additional coastal areas to be reclaimed to generate the natural slope of the land into the sea.

The transition from the more urban coastal side of the airport to the west at Lyall Bay to the more natural open space of the east side of the airport will be enhanced by the treatment of the east side as a more coastal character ecological habitat setting and the more structured landscape on the main bay side.

6.2 Connectivity

Connectivity in terms of this urban planning and design assessment means the functionality and quality of the physical connections between the multiple places people need to access for their use and enjoyment of the area.

At the broadest sense the airport runway enhances the connectivity from Wellington to the world by enhancing the air transport options and choice for people from New Zealand to travel to other countries. It also enhances the opportunities for people from other parts of the world to connect with Wellington with consequent economic, cultural and social benefits (refer Economic Effects Assessment).

At the local level the airport extension will enhance the connectivity to the coastal edge by providing a new shared path alongside the existing Moa Point Road from Lyall Bay Parade (refer to **Figures 9 and 10**) as well as on the east side of the runway extension on the sheltered bay-side. Platforms down to the water will provide sitting positions.

The existing underpass from the east to west side of the runway will be enhanced with better lighting to assist the recreational connection and extension of the recreational amenity from the open more urban Lyall Bay coastal area to the more natural sheltered bay to the east of the airport.

6.3 Amenity Values

Amenity values is defined in the RMA (s2) to mean those natural and physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.

In urban planning and design terms those amenities include recreational use (addressed by the Recreation Effects Assessments), visual experience (addressed by the Visual and Landscape Effects Assessment), and residential amenity (considered above with respect to the residential enclave context).

Aside from the amenity provided for and considered above in relation to connectivity, the other amenity effects of the runway extension include the proposed gateway improvements at the intersection of the airport road and Moa Point Road. These gateway improvements will result in an enhanced landscape that recognises this intersection point's importance as one of a string of 'nodal' intersection points along the south coast.

7 Mitigation and Conditions

The design of the runway extension has incorporated a number of elements which serve to mitigate or offset adverse effects. WIAL has also committed to other processes as mitigation. The mitigation elements are set out below:

- New shared path on the 'urban edge' side of the runway along the straight section of Moa Point Road which extends the promenade of Lyall Bay Parade with associated seating platforms;
- New beach re-creation at the junction of the extension (existing and new extension) in the bay to the east which includes ecological habitat enhancements and a path to a view point along the runway extension edge out in the bay;
- A new gateway landscape at the intersection of the airport road and Moa Point Road which can include reference to Maori cultural values in design process;
- Enhanced lighting to improve the comfort for cycling and walking through the underpass; and
- WIAL has offered to purchase the Moa Point properties in the event the project proceeds.

8 Summary

In summary, the airport runway extension is a logical fit with the way in which the urban form of the city has been planned and shaped over time. Wellington benefits from the close proximity of the airport to the city centre. The extension of the runway and the added connectivity this brings fits with the planned concept of Wellington as a compact city where moving to and from the city and the destinations within is efficient and easy.

The land uses surrounding the airport have generally been recalibrated over time to accommodate increases in the airport's size and function. The houses remaining at Moa Point Road are an exception and the adverse effects for the residents of these properties is recognised. WIAL has

offered to purchase these properties if the decision is made to proceed with the runway extension as it is proposed.

The public places where there are interfaces with the airport runway extension include the underpass for Moa Point Road, the more urban-facing edge on the Lyall Bay west side, and the less developed beach side on the east side. It is proposed to enhance the amenity values on the Lyall Bay side by extending a promenade from the well-used 'corner', where surfers and other users converge, up to the breakwater near the western portal of the Moa Point Road underpass. This will provide additional connectivity and accessibility along the coast than is currently provided.

On the east beach side of the extension the interface of the runway extension with the coast will be designed to enhance ecological habitat. It will also improve an existing untidy intersection between the current runway and beach by a considered approach to the design of this area. Wider afield from the beach itself, but also on the east side, the proposed development recognises the opportunity to create an improved landscape at the intersection of Stewart Duff Drive and Moa Point Road as a gateway to and from the south coast.

In conclusion, in urban planning and urban design terms, the runway extension development is considered to generate positive effects and the recognised adverse effects can be mitigated by the conditions proposed.

Attachment 1: Figures

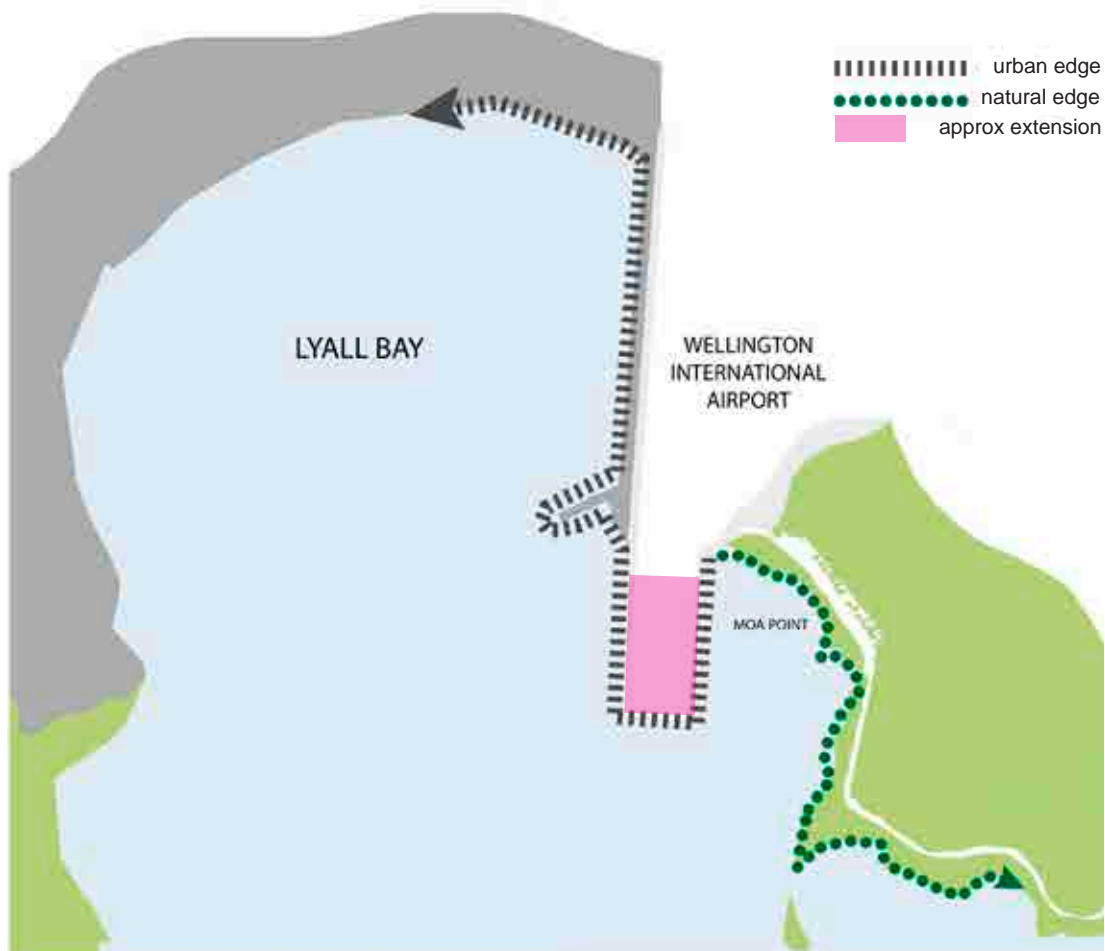


Figure 1: The coastal edge environment transitions from open urban to more natural and steep at the point of the airport

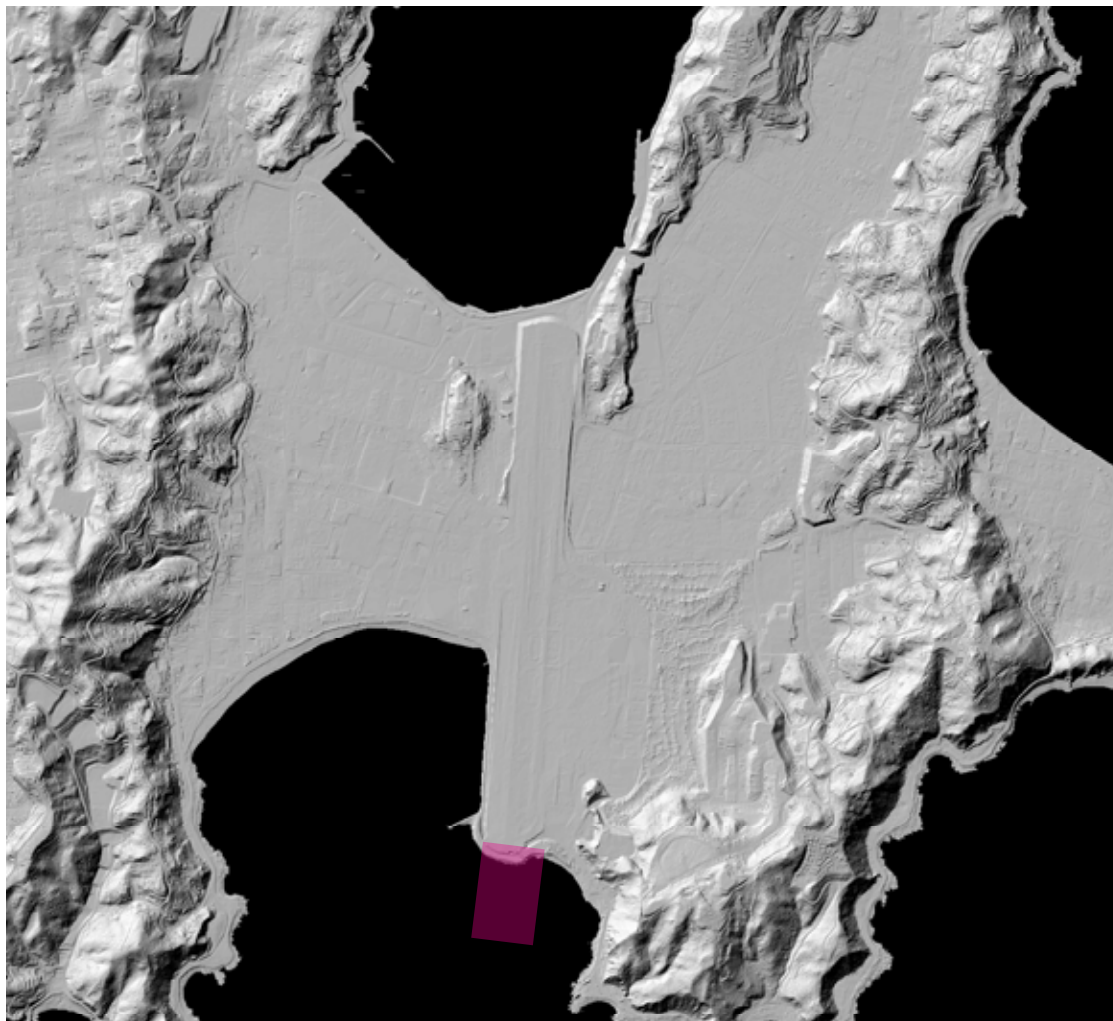


Figure 2: The airport sits on the isthmus of land that connects Kilbirnie to Miramar



Figure 3: The airport sits at the transition where the flatter isthmus of land connects to the form of the Miramar Peninsula.

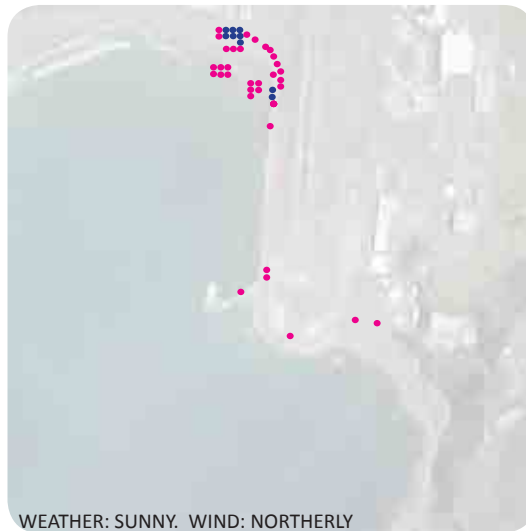


Figure 4: The land to the east of the airport rises as a steep escarpment behind residential properties on Moa Point Road.

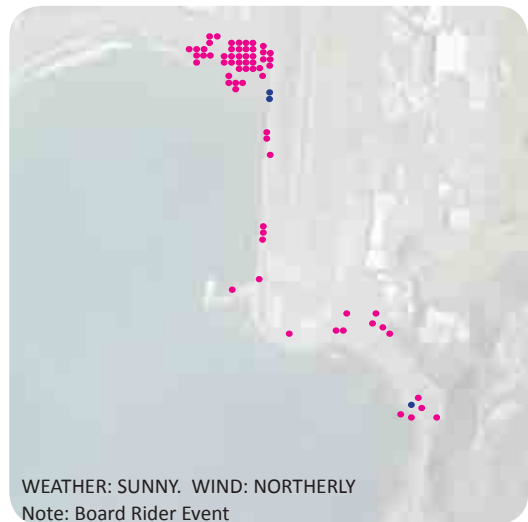
SUNDAY MARCH 8TH 4.30PM



TUESDAY MARCH 10TH 12.30PM



SATURDAY 21ST MARCH 12.30PM



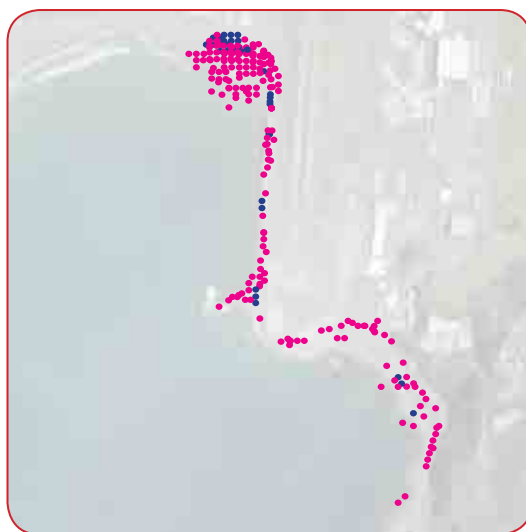
FRIDAY MARCH 27TH 12.30 PM



SATURDAY APRIL 11TH 12.30 PM



ALL OBSERVATIONS COMBINED



- active person - this can include cyclists, joggers, dog walkers, fishers, surfers - some may not be present
- stationary person - this can include plane watchers, person seated, or person standing still - some may not be present

Observations of use starting at the time noted above undertaken by walkover of the areas adjacent to the proposed runway extension. Observations are counts of individuals and their particular location. Where multiple people are in a small area the dots are grouped to allow individuals to be counted so will not be exact as to location.



Figure 6: Restricted area around the airport end currently



Figure 7: The large building forms of the New Zealand Centennial Exhibition are evident in the mid ground. The original natural shape of the bay can also be seen.



Figure 8: Indicative composite plan of urban design and landscape improvements.



Figure 10: Indicative plan and cross section of improvements to promenade - connecting from Lyall Bay Parade to Moa Point Road.

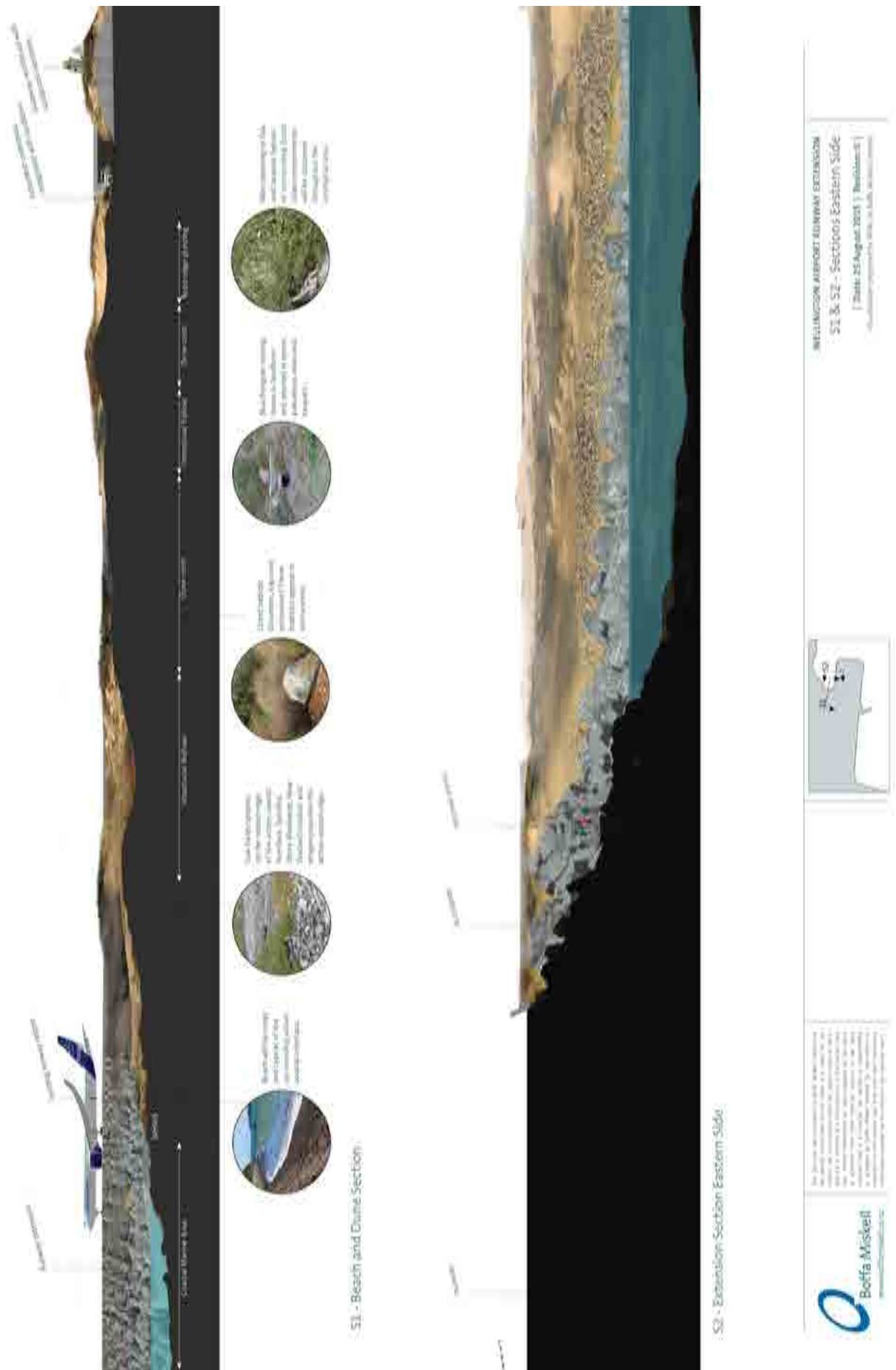


Figure 14: Indicative cross sections of Moa Point Beach runway extension edge.



Figure 15: Indicative plan and cross section for 'gateway' to south coast at Stewart Duff Drive.



Figure 16: Existing underpass - east side

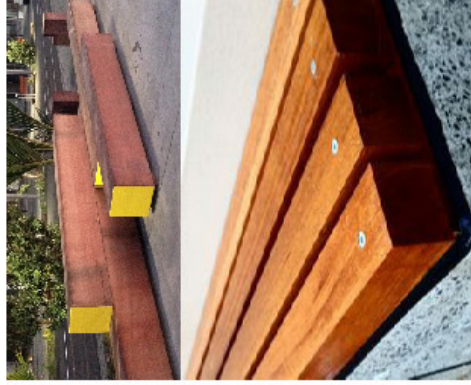
Promenade

The promenade path is exposed aggregate concrete with robust furniture and rock armour providing informal places to sit and protection from big swells. A standard fern and channel to Moss Point Road will form the road edge and collect stormwater runoff.



Furniture

Furniture will be made from sustainably sourced hardwood timber. It will be fixed with stainless rods inset in concrete. Colour highlights may be used.



Viewing Platform

The viewing platform is mainly concrete construction with robust wharf timber cladding on the top deck and seating. A concrete perimeter wall or similar on the southern side provides wind protection for users from southerly wind.



Underpass walls and structures

Precast panels will need to be used to face an extended underpass structure. These will continue the materiality of current walls and up like a similar graphic as the existing walls. If open sheltering structures are used these should be of robust materials and reference to local precedents (eg defence structures).



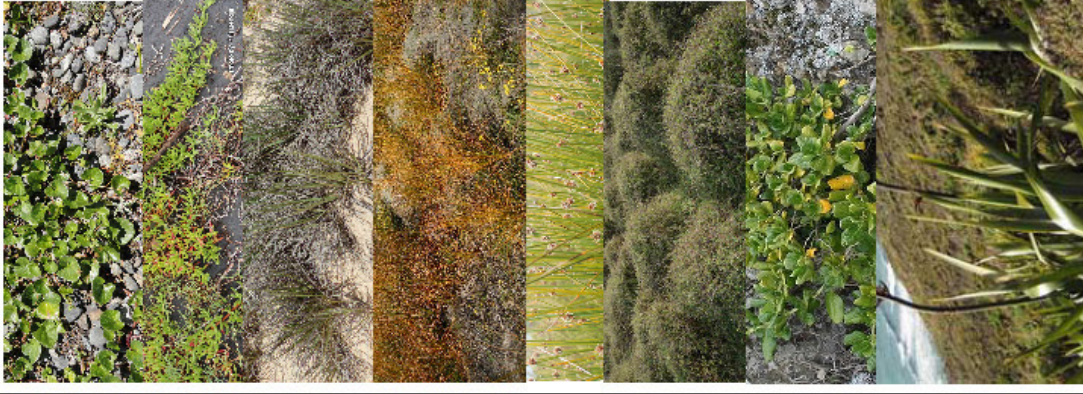
Informal Paths (Through Enhanced Dunescape)

Informal paths through the dunescape will be made of shingle, rock and mixed coastal gravel as in the area currently. Paths will provide access to the beach and laterally around the bay. There are opportunities for markers to assist path legibility. There are also opportunities for other cultural installations of a robust nature which can withstand the elements.



Planting

Hardy coastal species, all of which already exist in other areas of the south coast. Once established, these species will require minimal maintenance and will assist with erosion prevention and stabilisation. From top to bottom: Coastal Bindweed, NZ Lollipop, Saint Ilex, Pingao, Wiri, Muehlenbeckia, Tasapala, Flax.



This plan has been prepared by Boffa Miskell Limited as the specific instructions of our Client. It is solely for use by the Client and its authorised personnel. It is not to be used for any other purpose without the written consent of Boffa Miskell Limited. Where Boffa Miskell Limited has been engaged by the Client on other and/or other related matters, it has been acknowledged that Boffa Miskell Limited is not responsible for the content of this plan. It is the responsibility of the Client to ensure that the plan is used for the intended purpose and that it is not used for any other purpose without the written consent of Boffa Miskell Limited.

Figure 17: Indicative materials and forms for urban and landscape design proposals

Attachment 2: Plan Policy

WELLINGTON CITY DISTRICT PLAN 2000
AIRPORT AND GOLF COURSE RECREATION PRECINCT

OBJECTIVE **To protect the amenities of areas surrounding,**
10.2.5 **and within, the Precinct from adverse**
 environmental effects.

POLICIES

To achieve this objective, Council will:

- 10.2.5.1 Exercise an appropriate level of control over Airport and ancillary activities for the avoidance or mitigation of adverse effects.**
- 10.2.5.2 Ensure a reasonable protection of residential and school uses from Airport activities by providing controls on bulk and location, ensuring sufficient space is available for landscape design and screening, and by retaining a buffer of land of a recreational nature to the east of the Airport.**
- 10.2.5.3 Control the interrelationship between building forms and the space around buildings to ensure a high level of visual amenity.**
- 4.2.9.3 Ensure that any developments near the coastal marine area are designed to maintain and enhance the character of the coastal environment.**

NEW ZEALAND COASTAL POLICY STATEMENT 2010

Objective 4

To maintain and enhance the public open space qualities and recreation opportunities of the coastal environment by:

- recognising that the coastal marine area is an extensive area of public space for the public to use and enjoy;
- maintaining and enhancing public walking access to and along the coastal marine area without charge, and where there are exceptional reasons that mean this is not practicable providing alternative linking access close to the coastal marine area; and
- recognising the potential for coastal processes, including those likely to be affected by climate change, to restrict access to the coastal environment and the need to ensure that public access is maintained even when the coastal marine area advances inland.

Policy 6 Activities in the coastal environment

(2) Additionally, in relation to the coastal marine area:

- (a) recognise potential contributions to the social, economic and cultural wellbeing of people and communities from use and development of the coastal marine area, including the potential for renewable marine energy to contribute to meeting the energy needs of future generations:

Policy 10 Reclamation and de-reclamation

- (1) Avoid reclamation of land in the coastal marine area, unless:
 - (a) land outside the coastal marine area is not available for the proposed activity;
 - (b) the activity which requires reclamation can only occur in or adjacent to the coastal marine area;
 - (c) there are no practicable alternative methods of providing the activity; and
 - (d) the reclamation will provide significant regional or national benefit.
- (2) Where a reclamation is considered to be a suitable use of the coastal marine area, in considering its form and design have particular regard to:
 - (a) the potential effects on the site of climate change, including sea level rise, over no less than 100 years;
 - (b) the shape of the reclamation, and, where appropriate, whether the materials used are visually and aesthetically compatible with the adjoining coast;
 - (c) the use of materials in the reclamation, including avoiding the use of contaminated materials that could significantly adversely affect water quality, aquatic ecosystems and indigenous biodiversity in the coastal marine area;
 - (d) providing public access, including providing access to and along the coastal marine area at high tide where practicable, unless a restriction on public access is appropriate as provided for in policy 19;
 - (e) the ability to remedy or mitigate adverse effects on the coastal environment;
 - (f) whether the proposed activity will affect cultural landscapes and sites of significance to tangata whenua; and
 - (g) the ability to avoid consequential erosion and accretion, and other natural hazards.
- (3) In considering proposed reclamations, have particular regard to the extent to which the reclamation and intended purpose would provide for the efficient operation of infrastructure, including ports, airports, coastal roads, pipelines, electricity transmission, railways and ferry terminals, and of marinas and electricity generation.
- (4) De-reclamation of redundant reclaimed land is encouraged where it would:
 - (a) restore the natural character and resources of the coastal marine area; and
 - (b) provide for more public open space.

Policy 14 Restoration of natural character

Promote restoration or rehabilitation of the natural character of the coastal environment, including by :

- (a) identifying areas and opportunities for restoration or rehabilitation;
- (b) providing policies, rules and other methods directed at restoration or rehabilitation in regional policy statements, and plans;
- (c) where practicable, imposing or reviewing restoration or rehabilitation conditions on resource consents and designations, including for the continuation of activities; and

recognising that where degraded areas of the coastal environment require restoration or rehabilitation, possible approaches include:

- (i) restoring indigenous habitats and ecosystems, using local genetic stock where practicable; or
- (ii) encouraging natural regeneration of indigenous species, recognising the need for effective weed and animal pest management; or
- (iii) creating or enhancing habitat for indigenous species; or
- (iv) rehabilitating dunes and other natural coastal features or processes, including saline wetlands and intertidal saltmarsh; or
- (v) restoring and protecting riparian and intertidal margins; or
- (vi) reducing or eliminating discharges of contaminants; or
- (vii) removing redundant structures and materials that have been assessed to have minimal heritage or amenity values and when the removal is authorised by required permits, including an archaeological authority under the Historic Places Act 1993; or
- (viii) restoring cultural landscape features; or
- (ix) redesign of structures that interfere with ecosystem processes; or
- (x) decommissioning or restoring historic landfill and other contaminated sites which are, or have the potential to, leach material into the coastal marine area.

Policy 18 Public open space

Recognise the need for public open space within and adjacent to the coastal marine area, for public use and appreciation including active and passive recreation, and provide for such public open space, including by:

- (a) ensuring that the location and treatment of public open space is compatible with the natural character, natural features and landscapes, and amenity values of the coastal environment;
- (b) taking account of future need for public open space within and adjacent to the coastal marine area, including in and close to cities, towns and other settlements;
- (c) maintaining and enhancing walking access linkages between public open space areas in the coastal environment;
- (d) considering the likely impact of coastal processes and climate change so as not to compromise the ability of future generations to have access to public open space; and
- (e) recognising the important role that esplanade reserves and strips can have in contributing to meeting public open space needs.

Policy 19 Walking access

- (1) Recognise the public expectation of and need for walking access to and along the coast that is practical, free of charge and safe for pedestrian use.
- (2) Maintain and enhance public walking access to, along and adjacent to the coastal marine area, including by:

- (a) identifying how information on where the public have walking access will be made publicly available;
 - (b) avoiding, remedying or mitigating any loss of public walking access resulting from subdivision, use, or development; and
 - (c) identifying opportunities to enhance or restore public walking access, for example where:
 - (i) connections between existing public areas can be provided; or
 - (ii) improving access would promote outdoor recreation; or
 - (iii) physical access for people with disabilities is desirable; or
 - (iv) the long-term availability of public access is threatened by erosion or sea level rise; or
 - (v) access to areas or sites of historic or cultural significance is important; or
 - (vi) subdivision, use, or development of land adjacent to the coastal marine area has reduced public access, or has the potential to do so.
- (3) Only impose a restriction on public walking access to, along or adjacent to the coastal marine area where such a restriction is necessary:
- (a) to protect threatened indigenous species; or
 - (b) to protect dunes, estuaries and other sensitive natural areas or habitats; or
 - (c) to protect sites and activities of cultural value to Māori; or
 - (d) to protect historic heritage; or
 - (e) to protect public health or safety; or
 - (f) to avoid or reduce conflict between public uses of the coastal marine area and its margins; or
 - (g) for temporary activities or special events; or
 - (h) for defence purposes in accordance with the Defence Act 1990; or
 - (i) to ensure a level of security consistent with the purpose of a resource consent; or
 - (j) in other exceptional circumstances sufficient to justify the restriction.
- (4) Before imposing any restriction under (3), consider and where practicable provide for alternative routes that are available to the public free of charge at all times.

(PROPOSED) NATURAL RESOURCES PLAN FOR THE WELLINGTON REGION 2015

Objective.O10

Public access to and along the coastal marine area and rivers and lakes is maintained and enhanced.

Objective.O12

The social, economic, cultural and environmental benefits of regionally significant infrastructure and renewable electricity generation activities are recognised.

Policy P9 Public access to and along the coastal marine area and the beds of lakes and river.where it is necessary to permanently restrict or remove existing public access, the loss of public access shall be mitigated or offset by providing enhanced public access at a similar or nearby location.

Policy P13: Existing regionally significant infrastructure and renewable electricity generation facilities

The use, operation, maintenance, and upgrade of existing regionally significant infrastructure and renewable electricity generation activities are beneficial and generally appropriate.

Policy P132: Functional need and efficient use.

Use and development in the coastal marine area shall:

- (a) Have a functional need; or
- (b) Have an operational requirements to locate within the coastal marine areas, and no reasonable or practicable alternative to locating in the coastal marine area, or
- (c) For any other activity, it shall have no reasonable or practicable alternative to locating in the coastal marine area, ...

WELLINGTON REGIONAL POLICY STATEMENT 2013

Objective 10

The social, economic, cultural and environmental, benefits of regionally significant infrastructure are recognised and protected.

WELLINGTON REGIONAL COASTAL PLAN 2000

4.2.2 To recognise and distinguish between those parts of the coastal marine area which retain natural character, and those areas where natural character has already been compromised, and to encourage appropriate new developments only in the latter areas.

Explanation. Generally the natural character of the coastal marine area has been compromised in areas adjacent to urban areas, such as in Wellington Harbour, and is preserved adjacent to rural areas, such as along most of the Wairarapa coast. New development should generally be located in the former areas, and avoided in the latter areas.