

**Before the Independent Hearing Commissioner
In Wellington**

Under the Resource Management Act 1991 (the Act)

In the matter of A Notice of Requirement by Wellington City Council to alter Designation 58 (Moa Point Drainage and Sewage Treatment) to provide for the construction, operation and maintenance of the proposed Sludge Minimisation Facility at Moa Point, Wellington

Statement of evidence of Jeremy Everett Head for Wellington City Council

Landscape and visual

Dated 18 November 2022

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Statement of Evidence of Jeremy Everett Head

1 Introduction

- 1.1 My full name is Jeremy Everett Head.
- 1.2 I am a Landscape Architect and director of Jeremy Head Landscape Architect 2022 Ltd. I have been in this position since 5 September 2022.
- 1.3 This evidence focuses on landscape character and visual amenity matters arising from the Notice of Requirement ('**NOR**') lodged by Wellington City Council ('**WCC**') on 3 August 2022. The NOR is to alter Designation 58 (Moa Point Drainage and Sewage Treatment) in the Wellington City District Plan ('**WCDP**') to provide for the construction, operation, and maintenance of the proposed Sludge Minimisation Facility ('**SMF**' or '**Project**') at Moa Point, Wellington.
- 1.4 I have been asked to provide evidence by WCC.
- 1.5 I was included in the Project consenting team in July 2021 while I worked for WSP (I was initially engaged by Wellington Water Limited in July 2021 and then re-engaged by WCC when it took over the Project in September 2021). Since July 2021, I have visited the site and contextual setting twice, provided landscape advice while the Project was being designed, and prepared a written and graphic Landscape and Visual Assessment ('**LVA**') regarding the Project's effects on landscape character and visual amenity.
- 1.6 The Landscape and Visual Assessment is included as Appendix G to the NOR Assessment of Environmental Effects ('**AEE**'). At the time of preparing the LVA, I was a Senior, then Principal Landscape Architect at WSP.

2 Qualifications and experience

- 2.1 My qualifications include:
 - a Bachelor of Landscape Architecture (Honours); Lincoln University 1993.
 - b Diploma in Computer Graphic Design; Natcoll Design Technology 1999.

- 2.2 I have been a registered member of the Tuia Pito Ora New Zealand Institute of Landscape Architects ('**NZILA**') since 2004.¹
- 2.3 I have worked as a Landscape Architect focussing on providing landscape assessments and peer reviews for various councils, government departments, and private landholders for the last 16 years in New Zealand. Prior to this time, I focussed more on landscape design work at varying scales throughout NZ, while also supporting other senior practitioners with landscape assessment work. That said, I have been involved in landscape assessment work since graduating from Lincoln University in 1993.
- 2.4 Relevant to the scale and complexity of the SMF Project, I have provided landscape assessments for:
- a Oceana Gold (gold mining) at Macraes Flat in Otago;
 - b Three water treatment plants in Timaru District, Queenstown Lakes District and Lower Hutt;
 - c A wind farm in the Waitomo District;
 - d A new motorway alignment between Cambridge and Piarere in the Waikato; and
 - e Four individual solar farms in Canterbury.
- 2.5 I have also prepared many landscape peer reviews for Christchurch City Council, Mackenzie District Council and Selwyn District Council, including a peer review of the expansion of the Synlait and Fonterra Dairy factories.

3 Code of Conduct

- 3.1 While the NOR is not before the Environment Court, I have read and am familiar with the Code of Conduct for Expert Witnesses in the current Environment Court Practice Note (2014). Accordingly, I have complied with the Code in preparing this evidence and will follow it when presenting evidence at the hearing.
- 3.2 The data, information, facts, and assumptions I have considered in forming my opinions are set out in my evidence to follow. The reasons for the opinions expressed are also set out in my evidence to follow.

¹ In 1997 I was made an 'Associate' member of the NZILA. The 'Registered' status replaced the associate membership status which was phased out in the early 2000s.

- 3.3 Unless I state otherwise, my evidence is within my sphere of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

4 Scope of evidence

- 4.1 My evidence addresses the following:
- a The existing landscape environment – site;
 - b The existing landscape environment – study area;
 - c The receiving environment;
 - d Description of the Project;
 - e The assessment of effects methodology;
 - f Effects on landscape character;
 - g Effects on visual amenity values;
 - h Cumulative visual effects of the SMF;
 - i Effects on natural character;
 - j Proposed mitigation of effects;
 - k My response to submissions; and
 - l My response to the S42A Officer's Report.

5 Summary

- 5.1 The Project site is located within an area dominated by extensive urban development including Wellington International Airport ('**the Airport**') and the Wellington Water wastewater treatment plant ('**WWTP**') partly within and partly above the site at Moa Point. Open space and residential land use extends eastwards beyond the WWTP on the hills above the site. The Moa Point residential community is located to the south of the site, screened by a remnant of the Moa Point headland. Part of the site area used to be a quarry, and the Project will be partly enclosed to the east and south by the former quarry headwall.

- 5.2 Possible landscape issues arising from the Project include vegetation² clearance, further landform modification, and a change in the built character of the site compared to what currently exists. These may trigger changes and further loss in the already low landscape character³ attributes and values including amenity values.
- 5.3 The visibility of the Project will likely change over time due to future planned development at the Airport largely through the possible removal of an intervening 'hillock'⁴ within the Airport grounds and the development of a large regional freight hub building. Both aspects are considered in this evidence to form part of a possible future environment as they are included as part of Wellington International Airport Limited's ('WIAL') Masterplan⁵ and Main Site Area Designation.⁶
- 5.4 The site has been modified, formerly through quarrying and latterly, through industrial development. Most of the site falls within Designation 58 for the broader Moa Point WWTP. For these reasons, any natural character values have been largely extinguished. As such, any potentially adverse landscape effects of the Project have been considered against the site's baseline condition which appears to be fully modified.
- 5.5 Adverse landscape effects arising from the Project are assessed to be 'Moderate-Low', due to earthworks and the change in character at the site brought about by the collection of large buildings. The 'Moderate-Low' finding takes into account the site's current high levels of modification, degraded landscape character, and that the proposed buildings are consistent with other buildings nearby including those constructed under Designation 58 and other large buildings located opposite the site on WIAL's land.
- 5.6 Viewing audiences of the Project vary in type and location and include both static and transient views, active and passive. The visual effects (a subset of landscape effects) of the Project on these parties have been assessed. The assessment concludes that any visual effects generated by the Project beyond the receiving environment⁷ (**Attachment 3, Figure 1** below) will be negligible, and acceptable,

² The Ecological Impact Assessment (AEE, Appendix H) concludes that the magnitude of effects on terrestrial vegetation change arising from the Project will be 'low'.

³ Landscape 'character' includes the physical, associative, and perceptual dimensions.

⁴ The area proposed for the main construction laydown site for the Project currently contains a landform referred to as 'the hillock' on the north-western side of the site. This land is owned by Wellington International Airport Limited (WIAL) and part of the area currently occupied by the hillock would also be used by WIAL for airport purposes.

⁵ https://www.wellingtonairport.co.nz/documents/3131/FINAL_Master_plan.pdf at page 17.

⁶ Wellington City District Plan, Designation G5, Appendix AF, Purpose; Conditions 2, 19.

⁷ I use the term 'receiving environment' to refer to the area I have identified where effects generated by the Project may potentially be adverse, shown in my Landscape and Visual Assessment (Appendix G to the AEE) at section 8.2 and Figure 1. The Project may be visible from beyond the receiving environment; however, any effects would not be adverse.

- 6.2 I understand that most of the site has been modified through historic quarrying between 1938 and the 1950s to extract rock for the reclamation works underlying Wellington Airport.
- 6.3 I have included various photos and diagrams at **Appendix C** to my evidence. Appendix C refers to different photos as 'attachments'. Where I refer to an 'attachment' in my evidence, these can be found in **Appendix C**.
- 6.4 As shown by the photos at **Attachment 1 of Appendix C** (see **Figure 2** below), the site 'floor' is approximately 5-6 m above sea level with a contrasting 30 m high, steep to very steep 60-70° slope / headwall at its rear. Most of the site backdrop includes exposed rock. The rest of the backdrop is covered in self-seeded scrubby vegetation including hardy coastal native species, exotic grasses and weeds such as broom and gorse.



Figure 2: Photos of the SMF site

- 6.5 The level part of the site / former quarry floor is now almost fully occupied by hardstand or buildings. A small area of native planting and area of mown lawn is located along the north-western site boundary beside Stewart Duff Drive.
- 6.6 Two industrial-looking primary buildings are currently located within the site. These are the WWTP inlet pump station and its associated pipework, tanks and gantry and the AGS Automotive building⁸. Both buildings are surrounded by

⁸ AGS Automotive service WIAL vehicles.

hardstand, including vehicle parking areas, outdoor materials and machinery lay down areas, storage tanks, signage, fencing, gates, and the like.

- 6.7 A steep-sided rocky ridge at the north / northeast part of the site separates the access road to the upper WWTP and the flat part of the site. This ridge is covered in a sporadic mix of predominantly exotic scrub and grass weed species.
- 6.8 The site therefore has a highly modified landscape character due to:
- a Large-scale earthworks following historic quarrying activity.
 - b The site being largely covered in industrial buildings.
 - c Scant vegetation cover and quality of vegetation cover on minor unbuilt parts of the site.
- 6.9 Subsequently, levels of natural character at the site have been largely extinguished and any residual landscape values attributed to the site are assessed as being very low.

7 Existing landscape environment – area of study

- 7.1 Determining the extent of the receiving environment was a two-stage process. The first step was to determine a likely study area where there may be a level of adverse effects generated by the Project. This was done initially through desktop study, followed up / confirmed through fieldwork.
- 7.2 The 'area of study'⁹ for the Project includes part of Wellington's unbuilt and built coastline including urban areas at Lyall Bay, Rongotai and to the east, Strathmore Park. The area of study also includes WIAL, Miramar Links Golf Course, the seaside Moa Point residential community, and the western end of the Moa Point landform which is largely unbuilt (**Attachment 2 of Appendix C** and **Figure 3** below). These areas are the area of focus for determining where the landscape effects of the Project may fall.

⁹The 'area of study' is larger than the receiving environment (which is determined secondly, following detailed, field-based study) and in this case is based on the extent of a potential visual catchment – where people may be able to see the SMF to varying degrees. The extent of the 'area of study' is general, not precise, hence the simple 'oval' mapped extent.



Figure 3: Mapped 'Area of Study'

- 7.3 The context for the Project includes several distinctly different landscape character areas (**Figure 4 below**) including:
- a The Airport featuring extensive areas of hardstand and large buildings built partly on reclaimed land.
 - b A steep-sided grassed 'hillock' on WIAL land opposite the site, proposed to be removed by WIAL in the future. As such, the landscape effects of the Project have been assessed with the hillock in place and with it removed.
 - c Rolling, open and treed green space of Miramar Links Golf Course.
 - d Wellington WWTP 'perched' on the hill above the site.
 - e An intensively developed urban area around and above Lyall Bay, including residential, commercial, and industrial development and roading infrastructure.

- f The public Lyall Bay foreshore promenade and sandy beach.
- g Miramar Peninsula's rolling to moderately steep topography east of the site, partly developed for residential landuse, and partly remaining as natural open space, such as the reserve at Moa Point.
- h The isolated row of houses forming the Moa Point seaside community.
- i Various highly natural reefs, beaches, outcrops, and headlands around the Lyall Bay coastline.



Figure 4: Landscape Character Areas Map

- 7.4 The Project site is located at the landscape change point between a highly modified industrialised flat area and mixed natural and partially urbanised hill country.
- 7.5 The approximate extent of the landscape context and study area and receiving environment is shown in **Attachments 2 (Figure 3 above)** and **Attachment 3 of Appendix C (Figure 1 above)** respectively.

8 Receiving Environment

- 8.1 The receiving environment is located within and is a 'subset' of the study area described above (**Attachment 3 of Appendix C**). The extent of the receiving environment was tested during both site visits and is the area where any visual effects of the Project were assessed to be potentially adverse. The Project will be visible from areas outside the receiving environment; however, any effects will be negligible and acceptable as described below in section 12 of my evidence.
- 8.2 In summary the receiving environment includes the following areas:
- a The southern part of Miramar Links Golf Course.
 - b Part of the residential suburb of Strathmore Park¹⁰.
 - c Sections of the public tracks on the hills to the east of the site.
 - d Stewart Duff Drive (road and footpath).
 - e The southern part of the Airport including part of the terminal building and the airspace.
 - f Planned development at the Airport including the regional freight hub building proposed to be constructed opposite the site and Project¹¹.
- 8.3 The Moa Point seaside community is the closest group of potentially affected persons to the site; however, the Project is physically and visually separated from this group by the Moa Point landform. As such the Project will not alter this party's views.

¹⁰ The extent follows field-based study from public roads including Bunker Way, part of Nuku Street, Raukawa Street Tairaroa Street and Kekerenga Street which provided me with an understanding of where the site and SMF would likely be visible from nearby dwellings.

¹¹ I understand that the freight hub building will be operational by 2026.

9 Project description

- 9.1 The description of the Project in this section relies on the site plan,¹² (**Figure 5 below**) 3D modelling (**see Attachments 15 – 22 of Appendix C**) and descriptions¹³ of the Sludge Minimisation Facility (SMF) provided to me by Beca prior to the application being lodged on 3 August 2022. I understand that the design and layout of the SMF is subject to ongoing refinements and is yet to be finalised. However, as described below at paragraph 10.11, as long as certain conditions and assumptions are met, I do not consider the refinements will alter my assessment of effects.
- 9.2 The Project is comprehensively described in the AEE and in the evidence of **Mr Chris French** (Project Need) and **Mr Richard Galloway** (Construction). From a landscape and visual perspective, the key features of the Project are outlined below¹⁴ and illustrated in **Attachment 4 of Appendix C** and **Figure 5 below**.
- a **Earthworks:** I understand that due to the physical site constraints, part of the ridge in the north / northeast 'corner' of the site will be removed to provide enough room for building platforms. Earthworks are expected to cover 7,200 m² and include 15,000 m³ of cut with up to 3,500 m³ of this used on site as fill to raise the site floor to achieve similar levels to Stewart Duff Drive¹⁵. Some vegetation removal will be required in areas undergoing earthworks.
 - b **Main sludge processing building 1:** The approximately 23 m high, 3 storey energy centre building will be located where the existing inlet pump station associated with the WWTP is found at the north end of the site¹⁶. This building has an approximately 470 m² footprint. Construction methodology is unconfirmed at this stage but may include a combination of pre-cast concrete walls to the lower parts of the building and lightweight steel cladding on the upper parts¹⁷. Building colours will be recessive natural hues¹⁸. An odour control stack with an approximate height of 25 m will be located to the north of this building's north wall.
 - c **Main sludge processing building 2:** The approximately 21 m high, 3 storey Main sludge processing building will be located on the western site boundary

¹² AEE, Appendix C.

¹³ AEE, section 4.

¹⁴ The descriptions include information taken from the AEE and latest Proposed Designation Conditions.

¹⁵ AEE, section 4.8

¹⁶ The existing inlet pump station building will be removed.

¹⁷ Following various discussions with the project architect while preparing my earlier LVA.

¹⁸ Hues including blues / blue-greys / greys / greens / browns with light reflectance values (LRVs) no greater than 42%.

with zero road setback. The footpath along this part of Stewart Duff Drive will be realigned to provide for truck access and tracking. The main sludge processing building will have an approximately 950 m² footprint. Construction will likely include a combination of pre-cast concrete walls for the lower parts of the building and lightweight steel cladding for the upper parts. Building colour will be recessive natural hues.

- d **Digesters:** Two approximately 20 m or 24 m high¹⁹ / 14 - 16 m diameter Digester Tanks will be located in the general area where the AGS building (which will be removed) is currently located. The two digester tanks have 'cylindrical' sidewalls and flat roofs. Construction will likely include pre-cast concrete lower side walls, with the upper side walls and roof constructed from prefabricated, bolted steel 'rings'.
- e **Gas bag:** A domed building to store biogas generated from the digestion process will be in the northeast part of the site. Building colour is unconfirmed. I understand that it will not be white and will comply with a 42% LRV where practicable.
- f **Odour Stack:** A 25 m high odour stack will be located to the north of the energy centre building beside Stewart Duff Drive.
- g **Quarry Headwall:** The Project includes the scaling²⁰ and removal of loose colluvial material that has built up over time on the former quarry headwall. I understand that such material is considered a rock fall risk and that the extent of scaling works and stabilisation methodology is still to be determined by the engineer as geotechnical investigations are currently underway²¹. The scaling process will necessitate the removal of some scrubby vegetation that has established on parts of the headwall. Any unscaled areas of the headwall will be left in their current partially vegetated state.²²
- h **Hardstand, Fencing and Signage:** The Project includes resurfacing all hardstand areas around the proposed buildings within the site. Hardstand surfacing will be asphaltic concrete. Where buildings are not located on site boundaries, an open steel type of security fencing will be erected.²³ Signage

¹⁹ I understand that the two heights depend on the gas storage option selected.

²⁰ Scaling: Removing unstable or potentially loose rocks to mitigate rockfall hazards and stabilise the slope using hand tools or by mechanical means.

²¹ Following discussions with the Project team on 4 November 2022.

²² AEE, section 4.4.5.

²³ Based on discussions with the Project team over the course of the Project.

will be limited to maintain health and safety and provide for 'way finding' to benefit staff and visitors, including truck drivers.²⁴

- i **Landscape works:** Due to the limited available space, largely rock substrate and steep slopes and WIAL's requirements that no tall planting is included²⁵, the Project does not include any landscape works such as planting which may contribute to mitigation of the SMF buildings. However, the slope stabilisation works will include vegetated wire mattresses²⁶. There may be some opportunity for low level amenity planting in unbuilt and unpaved areas that would benefit site users and those passing by the site.²⁷

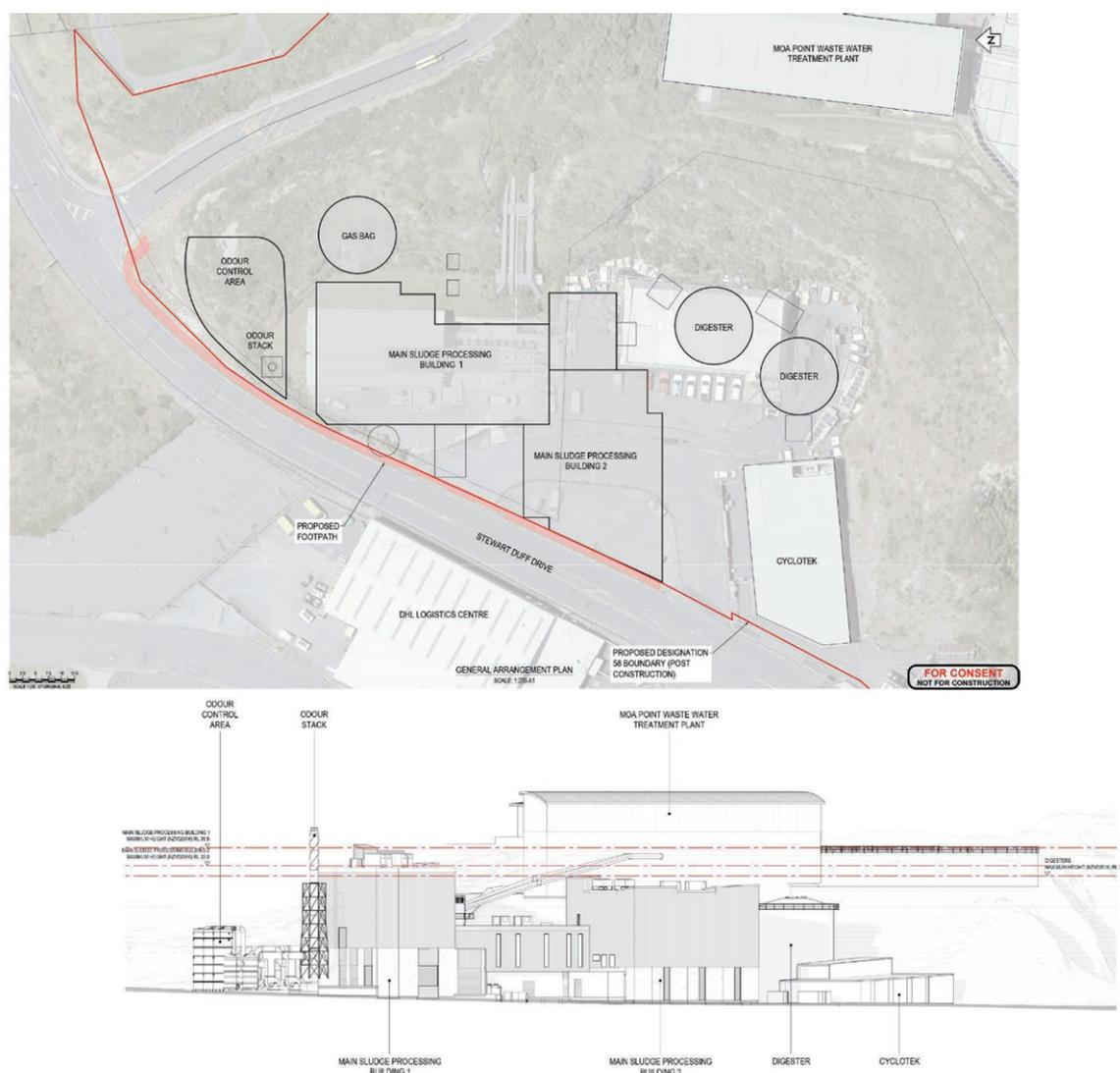
²⁴ McGimpsey EIC, Appendix A, condition 21.1.

²⁵ WIAL requires that no tall planting is included in the Project which may provide roosting for birds, which may interrupt flight operations and safety (AEE, section 3.4).

²⁶ AEE, section 4.4.5.

²⁷ McGimpsey EIC, Appendix A, condition 21.1.

Figure 5: Indicative Project Plan and Stewart Duff Drive Elevation from the AEE (Appendix C)



10 Assessment of effects – methodology

- 10.1 The methodology for assessment is based on Te Tangi a te Manu Aotearoa New Zealand Landscape Assessment Guidelines (July 2022)²⁸ and utilises information obtained from both desk top study and site / site context investigation through field study.
- 10.2 On 12 August 2021 I attended a workshop with other technical experts at the Beca offices in Wellington. The purpose of this was to gain a better understanding of the specifics of the Project. One agenda item of the workshop was to ascertain where and how design changes could be made to provide for better landscape outcomes. Afterwards, on the same day, I visited the site to

²⁸ Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines (2022). Prepared by Gavin Lister, Rachel de Lambert and Alan Tichener. An earlier 2021 draft of this document was referred to while the LVA was prepared.

examine the landscape character and values of the site and its broader context (**Attachment 2 of Appendix C**). During this fieldwork, the degree of visibility of the site and Project were ground-truthed²⁹ following earlier desktop study. A comprehensive photographic record and field notes were taken at the time.

- 10.3 On 19 January 2022 I visited the site for a second time, to consider the design changes that had been made to date and whether this would alter my effects findings from the first site visit³⁰.
- 10.4 One of the outcomes of the site visits was to determine the locations of any potentially affected parties and confirm the extent of the receiving environment (**Attachments 2 and 3 of Appendix C**).
- 10.5 The assessment process was carried out while the design of the SMF was being developed, during which I had several discussions with Roger Dowling, project Architect (Beca). This way opportunities to reduce the visual prominence of the SMF buildings through the use of colour and materials was able to be discussed, and options explored.
- 10.6 I have used the generally accepted³¹ among NZ Landscape Architects seven-point scale of effects when describing the magnitude of any potential adverse landscape effects arising from the Project. This effects scale ranges between: 'Very Low' to 'Low' to 'Moderate to Low' to 'Moderate' to 'Moderate to High' to 'High' to 'Very High' (**Appendix A of Appendix C** to my evidence).³²
- 10.7 I prepared several visual simulations³³ based on a 'worse-case scenario'³⁴ of how the Project might be designed. Architectural fenestration³⁵, materiality / texture, colour variety and design subtlety (which will follow the detail design stage) were not included in the visual simulations.

²⁹ Confirming, adjusting or disregarding assumptions made during desk-top study.

³⁰ The design had altered, including removing part of the ridgeline in the northeast part of the site. This altered my effects findings, which are now included in this evidence.

³¹ Noted in Te Tangi a te Manu at section 6.21 as an 'appropriate scale' as it uses neutral terms, is symmetrical around 'moderate' with even gradations and provides for a practical, nuanced ranking.

³² The Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines (2022) (at section 6.21) provides indications as to how the ratings in the 7-point scale are likely to correspond to effects levels that are commonly used in RMA decision making. The table indicates that 'moderate' and 'moderate-high' generally equates to 'more than minor' in RMA terms, and that 'low' or 'moderate to low' correspond to 'minor', 'very low' and 'low' corresponds to 'less than minor', 'high' or 'very high' correspond to 'Significant' which is also a 'more than minor' adverse effect.

³³ The production of these followed best practice set out in the NZILA 'Visual Simulations' Practice Note, 2010 which was adopted in the later 2022 Te Tangi a te Manu Aotearoa New Zealand Landscape Assessment Guidelines.

³⁴ That is, the tallest, bulkiest, built form/s of the SMF that would comply with the proposed conditions.

³⁵ The arrangement, proportioning and design of windows and doors and other openings and aesthetic details which may or may not contribute to the functioning of the SMF, but are publicly visible.

- 10.8 The Project was modelled in 3D by David Ellis (Beca) and overlain onto my site photographs. The 3D modelling methodology is included at **Appendix B** of my evidence.
- 10.9 The collection of buildings depicted in the visual simulations are simple, 'bulk and scale' versions of the Project including a collection of recessive-coloured forms at the approximate scale and height as proposed. This provided me with a sufficient level of information to determine the likely magnitude of landscape effects and how apparent the Project would be from various viewpoints within the receiving environment. My effects ratings will not change provided the overall built footprint, building locations and building heights do not substantially alter in the final outcome.
- 10.10 Levels of adverse visual effects generally decrease with distance from a proposal. In the case of the Project, this is demonstrated in **Attachments 15 – 18 of Appendix C** and is summarised in **Table 1**.
- 10.11 I am aware there are likely to be ongoing refinements to the design of the SMF prior to construction. I am confident that this will not affect my assessment of effects, provided the following things are true:
- a The Proposed Designation Conditions³⁶ are complied with.
 - b Building heights are within 20% of what has been modelled.³⁷

³⁶ McGimpsey EIC, Appendix A.

³⁷ Up to 20% of what has been shown in the visualisations. For example, the tallest building at 22.5 m high could be ultimately constructed up to 27 m in height which would not alter the landscape and visual effects findings, given the seven-point scale used. The height of the odour stack will not alter from 25 m which is proposed now. A 20% change in the building arrangement on site would not trigger a change in the level of effects, although it would be difficult to quantify what a 20% change in site layout looked like. The building heights modelled were 22.5 m for the main sludge processing building 1, 21.3 m for the main sludge processing building 2 and 20.4m for the digesters. These are the buildings' heights relative to the site ground level rather than being relative to New Zealand Vertical Datum 2016.

11 Effects on landscape character and its values

- 11.1 Effects on landscape character concern physical changes to a setting which may or may not be seen. Effects may be positive or negative (adverse) and will alter the values derived from that landscape character in some way. Landscape character encompasses everything about a landscape – its physical, associative, and perceptual dimensions, whether tangible or not and is a combination of all of these.
- 11.2 Physical changes to the landscape arising from the Project which will have a level of effect on landscape character are described in section 9.
- 11.3 As described above in section 6, any potentially adverse effects of the Project regarding landscape character and its values must be considered against the site's baseline condition which is a highly modified one.
- 11.4 Nonetheless, the site is close to two highly natural areas including Te Whanganui a Tara / Wellington Harbour and the slopes above the site on Moa Point. As such, there will potentially be adverse landscape effects generated by the Project – arising from further non-natural modifications to the site.
- 11.5 While the site currently includes buildings, the Project includes several larger, taller buildings which will generate adverse landscape effects.
- 11.6 The quantum of excavation will likely be substantial, including removal of a section of ridgeline and excavating below ground level to accommodate parts of some of the proposed buildings such as the digester plant room building, and tanks which will have approximately 4 m of their height located below 'natural'³⁸ ground level.
- 11.7 However, large buildings³⁹ already exist within the receiving environment which means the form of the Project will have an acceptable level of compatibility with its surrounding industrialised environment.
- 11.8 The composition and design of the SMF buildings will be 'utilitarian' in architectural character, comprising a collection of basic geometric industrial forms. Given the location of the site and immediate built context, there is little reason to depart from this 'simple and honest' format and resulting external appearance where 'form follows function'. Few people will be proximate to the

³⁸ Ground level is not a natural surface as it forms the base of a former quarry floor.

³⁹ The neighbouring 585 m² / 6 m high Cyclotek building is located to the south of the site. The 14,500 m² wastewater treatment plant is located above the site on Moa Point. The existing DHL warehouse, opposite the site is also large at approximately 1,250 m² / 8 m tall. This is proposed to be replaced by 2026 with a larger regional freight hub building at 9,500 m² / 8.5 m high.

buildings for any length of time who may otherwise benefit from advanced 'aesthetics'.

- 11.9 I acknowledge that the design of the SMF buildings and their layout on site will continue to evolve. However, certain measures are set in place now via conditions relating to building height, colour and reflectivity levels⁴⁰. This approach is appropriate for an NOR and provides a level of certainty as to the potential prominence of the Project and its effects.
- 11.10 Parts of the rear headwall will be scaled or excavated to achieve stable grades. These works will entail partial vegetation removal, which on the headwall comprises mixed coastal native and exotic scrub and weed species. Nonetheless there will be a degree of adverse landscape effect following any vegetation change and re-contouring works behind the plant as the balance of built pattern/natural pattern will alter. This will 'self-correct' over time as new planting in the wire 'mattresses' pinned to parts of the headwall establishes and plants naturally recolonise the excavated areas.
- 11.11 In my opinion, any potentially adverse landscape effects, taking into account the site's present condition, will be '**Moderate-Low**'⁴¹ due to the following factors:
- a Additional earthworks are proposed including the removal of a part of the ridgeline currently enclosing the site.
 - b The rear headwall will be partly scaled which will include some loss of vegetation.
 - c The site will essentially become 'filled' with built forms, some of which will be high, and associated infrastructure.
 - d The site already has a highly modified industrial character.
 - e Designation 58 providing for wastewater buildings and activities similar to what are proposed covers most of the site. Therefore, the Project is not inconsistent with the anticipated land use of the site.
 - f Several buildings are excavated down into the site floor to varying degrees further reducing height, bulk and scale.

⁴⁰ Conditions 20.1, 21.1 and 21.2.

⁴¹ **Moderate-Low**: A moderate to low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate to low level of effect on the perceived amenity derived from it.

- g The architectural intent is that the design and recessive colours of the SMF buildings will go some way towards reducing their bulk and scale and as such will improve the Project's levels of acceptability.
- h The proposed buildings have similar characteristics to other nearby industrial buildings/facilities including the WWTP, which is large and found at a higher, more visible location in the Moa Point landscape than the Project will be.

12 Visual effects

- 12.1 Visual effects are a subset of landscape effects and concern the effects on landscape values experienced through views. Visual sensitivity may be influenced through how visible a proposal is, the nature and extent of the viewing audience, where they are located within the receiving environment relative to the change, and view time. Other factors include the visual qualities of a proposal and the absorption capability of the setting for a proposal. An assessment of visual effects is one method to help with understanding the levels of landscape effects. However, visibility of a landscape change does not necessarily mean an adverse visual effect is generated.
- 12.2 The visual catchment (where the Project will be seen from, and where effects may be potentially adverse) is discussed in section 8 and mapped in **Attachment 3 of Appendix C (see Figure 1 above)**. This mapped extent in my opinion comprises the receiving environment for the Project. In my opinion, any adverse effects on landscape values arising from changes in views brought about by the Project on those parties within the receiving environment will be potentially adverse to varying degrees for the following reasons:
 - a The SMF buildings will disrupt the foreground composition of sea views to varying degrees.
 - b Recessive 'land-based' colours will be less effective where the SMF buildings will be viewed with a sky or sea backdrop.
 - c The SMF buildings will be less than 800 m from the viewer where the buildings will occupy a relatively larger part of the view compared to locations beyond the receiving environment.
 - d The SMF buildings will be seen less associated with similar industrial development from these parties' views.

- 12.3 The Project will be potentially visible from outside this area. However, the visibility of the Project will be reduced by the 800 m + distance from most viewpoints and the intervening, contextual urban development forming a major component of most views, 'diluting' the proposed changes. These urban patterns include large buildings on WIAL land and the WWTP complex of buildings on Moa Point above the site.
- 12.4 The visibility of the Project and its visual effects are demonstrated in **Attachments 15 – 22 of Appendix C**. In my opinion, any adverse effects on landscape values arising from changes in views brought about by the Project on areas beyond the receiving environment will be acceptable for the following reasons:
- a The distance between the viewer and the SMF buildings.
 - b The site includes / is backdropped by the remnant quarry headwall. This gives the SMF buildings a landform backdrop. The SMF buildings' recessive colours will have a degree of compatibility with the backdrop colours.
 - c The existing WWTP including above the site provides a degree of precedent for the Project. There are existing industrial buildings, including at higher elevations in the landscape compared with the SMF buildings.
 - d There is substantial industrial built and hardstand in the scene - most of which includes the Airport.
 - e The proposed regional freight hub building will provide a screen to the lower parts of the SMF buildings.
- 12.5 I understand that as part of WIAL's development plans, the 'hillock' located to the north of the site may be removed.⁴² If removed, the Project will be more visible from some viewpoints, namely from the north - such as from the Airport terminal building and the effects of the Project will alter accordingly. The hillock is steep sided and covered in sporadic mixed native and exotic vegetation, including weeds. While the hillock and its landcover is natural, it is not especially attractive, although it was once part of Moa Point and in this regard is a valued 'remnant' of sorts. Its landscape value largely lies in its contribution as a screen or natural offset to the surrounding industrial development.

⁴² I understand WIAL and WCC will be applying for a resource consent to remove the hillock as joint applicants.

- 12.6 As a result, the Project is assessed and shown in the modelling under two scenarios - with the hillock removed and retained.
- 12.7 The various viewing audiences identified within the receiving environment that will have views of the Project (**Attachment 3 of Appendix C**) where there will be some degree of potentially adverse visual effect includes the below groups:
- a Residents in parts of Strathmore Park⁴³ (fixed, long-term⁴⁴ view duration).
 - b People traversing the public tracks above / east of the site (transient, short to medium-term⁴⁵ view duration).
 - c Motorists travelling along Stewart Duff Drive in both directions passing by the site (transient, short-term⁴⁶ view duration).
 - d People walking or cycling along Stewart Duff Drive in both directions passing by the site (transient, short to medium-term view duration).
 - e People travelling eastbound along Moa Point Road (transient, very short-term⁴⁷ view duration).
 - f People within the airport terminal building (transient, short to medium-term view duration).
 - g People boarding aircraft / crossing or otherwise temporarily occupying the tarmac (transient, short-term view duration).
 - h Air travellers (transient, clear, and direct, but very short-term view duration).
 - i People on the golf course (transient, short to medium-term view duration).
- 12.8 There will potentially be views to the Project from the yet to be built regional Freight Hub building (which does form part of the 'existing environment' as described in the evidence of **Mr Paul McGimpsey**).⁴⁸ The 3D renders indicate windows facing to the east and the site (**Attachment 1a of Appendix C**). I have therefore assumed that occupants of the building will have views to the Project. In my opinion any adverse effects of the Project on this party will be '**Low**'⁴⁹ and

⁴³ Residents located on Bunker Way, part of Nuku Street, Raukawa Street, Taiaroa Street and Kekerenga Street.

⁴⁴ Long-term view: Where people permanently occupy the building/space i.e., are not 'passing through' or visiting.

⁴⁵ Short to medium-term view: Where people are passing through and may occasionally pause.

⁴⁶ Short-term view: Where people are passing through and not stopping.

⁴⁷ Very short-term view: Where people are passing through by vehicle, not stopping and where there are brief glimpses to a site/proposal. Also includes views from within aircraft during flight.

⁴⁸ McGimpsey EIC, para 6.3.

⁴⁹ **Low**: A low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a low level of effect on the perceived amenity derived from it. (*Oxford English Dictionary Definition: Low: adjective-below average in amount, extent, or intensity*).

acceptable. Any occupants of the freight hub are non-permanent workers engaged in daily work activities who understand that they are working within an existing industrial setting and as such have an expectation of the nature of their outlook. Depending on construction timings, the occupants of the building are also likely to only ever have those views with the SMF site either being constructed or in operation, so it is less likely to be perceived as a change to them.

- 12.9 Mitigation is currently limited to the use of recessive colours. The buildings' final colours are not confirmed but will include light reflectance values⁵⁰ ('LRVs') no higher than 42%. The following effects section assumes these colours and LRV is used.

Strathmore Park Residents

Without the hillock removed

- 12.10 I have assessed the Project from public roads and tracks near private properties where the effects will be similar to the effects within private properties.
- 12.11 Pleasant overviews of the golf course, Airport, Lyall Bay and Cook Strait are part of the southwest outlook for the occupants of several dwellings on Bunker Way, part of Nuku Street, Raukawa Street, Taiaroa Street and Kekerenga Street. Currently, the industrial site is largely screened from view behind and below a low ridge. As such, views from these residences will doubtless be highly valued (**Attachment 13 of Appendix C**).
- 12.12 Occupants of these Strathmore Park dwellings will have views of part of the Project. As a result of the removal of a section of ridgeline in the northern 'corner' of the site, (**Attachment 21 of Appendix C**) the northern SMF buildings will be visible between the WWTP on Moa Point above the site and the proposed regional freight hub building to the west of the site. In this regard there will be a continuous series of built forms visually 'stepping down' from Moa Point 'onto and across' WIAL land.
- 12.13 The upper parts of the SMF buildings will also partly block views to the waters of Lyall Bay and Cook Strait.

⁵⁰ The approximate light reflectance value (LRV) of an individual colour indicates the proportion of light that a surface reflects compared to the amount of light that falls on that surface. Black has a light reflectance value of 0% and absorbs all light. In contrast, white has a light reflectance value of nearly 100%. All colours fit between these two extremes.

- 12.14 The Project will be visible, occupying the gap between two landforms – Moa Point and the hillock further north that was once contiguous with Moa Point. These landforms exhibit a degree of natural character including steep rising topography and a mosaic of vegetation cover. The Project, and to a lesser degree, the proposed regional freight hub building will occupy a large part of the gap between the two landforms, where there is currently a viewshaft through to the waters of Lyall Bay and Cook Strait. For this reason, an adverse visual effect is unavoidable. This part of the view ‘gap’ will include an increased number of built forms, some of which will be tall.
- 12.15 The Project will be seen alongside other industrial buildings existing and yet to be built above and to the west of the site and so the SMF buildings will not be unique in the setting. Industrial development within the Airport area is extensive and includes several large warehouse buildings. Airport activity including planes taxiing, taking off and landing will be regularly visible from these residential areas. The existing WWTP on Moa Point is skyline based and at a relatively high elevation and includes colours with high reflectivity levels.
- 12.16 Taking the environmental baseline condition discussed above into account, it is my opinion that any potentially adverse visual effects on Strathmore Park residents will be **‘Moderate-High’**⁵¹.

With the hillock removed

- 12.17 When the hillock is removed, more of Lyall Bay, its western headland and Cook Strait is visible (**Attachment 21 of Appendix C**).
- 12.18 The proposed regional freight hub building will also become more visible, although the top of this building will remain visually below the sea horizon.
- 12.19 With the hillock removed, the Project has more ‘breathing room’ from this view direction where sea views increase, slightly offsetting the effects of the Project. The Project will not appear ‘in a saddle’ which has negative effects around breaching ridgelines but will rather appear at the base of a slope which is preferable in landscape terms.

⁵¹ **Moderate-High:** A moderate to high level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate-high level of effect on the perceived amenity derived from it. In RMA terms a ‘moderate-high’ adverse effect is synonymous with a ‘more than minor’ adverse effect.

12.20 In my opinion any potentially adverse visual effects of the Project on these parties will be slightly improved with the hillock removed and will be '**Moderate**'⁵².

People on public tracks

Without the hillock removed

- 12.21 Several tracks link Stewart Duff Drive with Strathmore Park, via Kekerenga Street. I walked these tracks on two occasions, observing the site and site context.
- 12.22 In open areas westward views are possible, including to the site and Project. At various 'rest-stops' and track junctions, simple park benches are located where static views are available to the golf course, Airport and Lyall Bay. The site is largely screened from view behind and below a low ridge or is otherwise 'around the corner' and hidden by Moa Point and the vegetation cover below the WWTP. These vistas are highly valued to track users (see **Attachment 20 of Appendix C**).
- 12.23 The northern end of the Project will be partly visible from various locations along the track network, exacerbated by the removal of part of an existing ridgeline (**Attachment 20 of Appendix C**). The SMF buildings will be seen occupying a 'saddle' of sorts. The removal of this section of ridgeline, replaced by the built aspects of the Project will generate adverse visual effects. Natural elements and patterns currently enjoyed will be replaced by built forms. The proposed regional freight hub building, and the Airport grounds will be visible backdropping the SMF buildings from higher track views. As such, the Project will contribute to an intensification of industrial forms in the setting.
- 12.24 Further, from track views, the Project will be backdropped by the proposed regional freight hub building and Airport grounds, or both. As such, the Project will have a degree of compatibility with other built forms and hard surfaces.
- 12.25 In my opinion, any potentially adverse visual effects of the Project on track users will be '**Moderate**' (with the hillock in place).

⁵² **Moderate**: A moderate level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate level of effect on the perceived amenity derived from it. (*Oxford English Dictionary Definition: Moderate: adjective-average in amount, intensity or degree*). In RMA terms a 'moderate' adverse effect is synonymous with a 'more than minor' adverse effect.

With the hillock removed

- 12.26 The primary difference to views from the tracks when the hillock is removed, is that more of the Airport grounds and proposed regional freight hub building will be visible. As a result, there will be a net loss in natural elements and patterns in the field of view from the track.
- 12.27 In my opinion, any potentially adverse visual effects of the Project on these parties will remain '**Moderate**' regardless of whether the hillock is removed or not as the Project is 'off to one side' of the hillock from track-users' views (**Attachment 20 of Appendix C**).

People within the road network

Without the hillock removed

- 12.28 Stewart Duff Drive and Moa Point Road comprise the only roads proximate to the site where the Project will be visible from. Road views include brief glimpses from Moa Point Road and longer duration views from Stewart Duff Drive. Motorists, cyclists, and pedestrians use both roads. From these roads, views into the site are influenced by the presence of various industrial buildings, infrastructure, and activity. This is not unusual in the setting with similar industrial elements and patterns also occurring across Stewart Duff Drive within WIAL.
- 12.29 Views towards the site from Moa Point Road and Stewart Duff Drive 'south' therefore hold low amenity values (**Attachments 1, 12 – 13 and 22 of Appendix C**). The hillock and low ridge opposite it, screen views of the site from Stewart Duff Drive 'north' (**Attachment 13 of Appendix C**).
- 12.30 The upper parts of the SMF buildings will be glimpsed from Moa Point Road for an approximately 200m stretch where it will be seen behind and rising above existing industrial buildings nearby including the proposed regional freight hub building (**Attachment 12 of Appendix C**). Views will be via short glimpses where any adverse visual effects will in my opinion, be '**Low**'.
- 12.31 The Project will be visible to a greater degree from Stewart Duff Drive 'north' between the airport terminal / carpark building and the hillock due to the removal of part of the ridgeline. Foreground views include the golf course and the Moa Point backdrop which contribute attractive elements in the setting, although the WWTP on top of Moa Point, WIAL and the road itself degrade these views to a degree. The Project will nonetheless add a series of industrial built forms to the others already present within the setting.

- 12.32 The extent of the Project's level of visibility will vary between the upper parts of the SMF buildings being visible at distance to most of the buildings being visible when passing by the site. In my opinion any adverse visual effects will be **'Moderate'** to **'Moderate-High'** depending on one's proximity to the Project.
- 12.33 From both roads, the hillock offers minimal screening of the Project and only to views from near the airport carpark building. As with public views from the tracks discussed above, the hillock provides a 'side' benefit to the Project as a partial buffer between the Project and WIAL including the proposed regional freight hub building. The hillock contributes a prominent natural landform to the scene which helps to screen or balance out the various built elements nearby, including the Project and its visual effects.
- 12.34 From Stewart Duff Drive north of the site, the Project will be 'framed' in the view between the hillock and Moa Point. In this regard, the visible parts of the Project will have a degree of 'enclosure' by prominent natural landforms which will help reduce the relative scale of the Project. Taller landforms than the SMF buildings will 'bookend' the Project at either side from these road views.
- 12.35 Any adverse effects on amenity values will differ depending on viewpoint distance and the duration of views. The effects of the Project will be less when travelling by in a motor vehicle compared to when walking past on the footpath. The effects from Moa Point Road which runs perpendicular to the Project will be less than from Stewart Duff Drive.
- 12.36 On balance, in my opinion any potentially adverse visual effects of the Project to views from within the Moa Point Road and Stewart Duff Drive Road corridors will be at worst **'Moderate-High'** when passing directly beside the Project on foot (**Attachment 22 of Appendix C**) and at best **'Low'**⁵³ where the Project can be glimpsed driving past on Moa Point Road.

With the hillock removed

- 12.37 The removal of this landform will have little effect on the visibility of the Project from Stewart Duff Drive and nil effect from Moa Point Road. The hillock is physically and visually 'off to one side' of the Project relative to road views. As discussed above, cumulative effects of increased built development in the scene, contributed to by the Project will be more evident if the hillock is removed. There

⁵³ **Low:** A low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a low level of effect on the perceived amenity derived from it. (*Oxford English Dictionary Definition: Low: adjective-below average in amount, extent, or intensity*).

will be a net loss in natural elements and patterns in the field of view, mostly from Stewart Duff Drive due to the removal of the hillock.

- 12.38 In my opinion any potentially adverse visual effects of the Project on road users will be slightly higher at **'Moderate-High'** with the hillock removed than if it was retained. The Project will have less 'enclosure' on one side provided by a taller natural landform (the hillock).

People within the airport terminal

Without the hillock removed

- 12.39 There are elevated short to medium-term southward views from the airport terminal building towards the site and Project (**Attachment 11 of Appendix C**). The tarmac, carparking, various warehouses, a covered walkway, lamp standards and fencing form permanent parts of foreground views. In addition, various temporary and mobile airport support vehicles, including aircraft occupy the scene at various times. The WWTP is visible on Moa Point above the site. Moa Point, Strathmore Park and the golf course are visible in the background / periphery of views from the terminal building.
- 12.40 From views from the Airport terminal, the hillock - which is in the mid-ground and as such appears large, will (if not removed) almost fully screen the Project from view.⁵⁴The proposed regional freight hub building will be visible to the west of the hillock.
- 12.41 As a result of this screening, there will be nil effects arising from the Project. This 'nil' effect will increase slightly if the stack extends beyond the outline of the hillock and was visible. In this case any potentially adverse visual effects would in my opinion only be **'Very Low'**⁵⁵ given the existing WWTP on the hill above and the overhead light poles in foreground views which comprise similar tall, slim stack-like vertical elements.

With the hillock removed

- 12.42 With the hillock removed, the Project will essentially be fully visible from the airport terminal. A complex series of built forms will be an integral part of southward views. I understand from the modelling provided by David Ellis (Beca) that the removal of the hillock will not be down to / matching existing Airport

⁵⁴ It is possible that the odour control stack will extend above the hillock's outline.

⁵⁵ **Very Low**: Very low or no modification to key elements/features/characteristics of the baseline or available views, i.e., approximating a 'no-change' situation.

tarmac level. The base of the hillock will be retained forming a level 'terrace' of sorts above the main tarmac level. I understand that WIAL proposes to use this area as an additional lay down space for future airport development works. These activities will partially screen or buffer the lower part of the Project to views.

- 12.43 The WWTP, proposed regional freight hub building, and the Project will be seen close to one another where cumulative effects will come into play. These buildings will begin to dominate the southward views from the terminal.
- 12.44 Taking the transient nature of these views into account, in my opinion any potentially adverse visual effects of the Project on those looking southwards from the terminal will be **'Moderate-High'** in the situation where the hillock is removed.

Air travellers

Without the hillock removed

- 12.45 The site is briefly visible while crossing parts of the tarmac south of the main terminal building when boarding or departing from aircraft. The site is also visible to varying degrees from within aircraft when stationary and while aircraft are taxiing. Such views of the site are generally via brief glimpses. The site is also highly visible, albeit very briefly from a 'birds-eye' perspective when taking off to the south or approaching from the south depending on what side of the aircraft one is sitting.
- 12.46 When engaged in air travel, the site is generally observed as part of a larger industrial area in a regularly and sometimes rapidly changing sequence of views. The site is part and parcel of a generally 'busy' and focussed airport and air travel environment. In these regards the site is not especially notable, or noticeable and when seen holds little, if any amenity value.
- 12.47 From some directions, the hillock will screen parts of, or all of the Project from view. However, it is difficult to say to what degree the hillock influences the visibility of the Project as I could not accurately assess this from a plane.
- 12.48 From some angles and elevations, the Project will be highly visible – particularly from the air. However, the visual effect or prominence of the Project will be diluted by its industrial context. On balance, in my opinion, any potentially adverse visual effects will be **'Low'** for air travellers.

With hillock removed

- 12.49 With the hillock removed, the Project will potentially be fully visible whether crossing the tarmac, waiting in the aircraft, during taxiing or in flight. Such views will be transient and short-term ones.
- 12.50 In my opinion any potentially adverse visual effects of the Project on air travellers will be '**Low**' whether the hillock remains or is removed.

Golfers

Without the hillock removed

- 12.51 The industrial part of the site cannot be seen from the golf course due to the intervening ridge above the WWTP access road. I have not assessed views from the golf course and so I make an assumption as to the experiences a golfer would have with and without the Project in place. However, it is clear from looking at the golf course from outside it, that the visual values experienced from within will doubtless be high, due to its well-kempt condition, inclusion of abundant greenery and open space, and highly vegetated Strathmore Park hill backdrop (**Attachments 13, 14 and 20 – 21 of Appendix C**). The only detractors to these values would be from WIAL facilities and activity and traffic passing by along Stewart Duff Drive, both of which are visible from the golf course.
- 12.52 The northern SMF buildings will be visible to varying degrees from the southern half of the golf course particularly. This will be due to the partial removal of the intervening ridgeline beside the WWTP access road to accommodate the SMF buildings.
- 12.53 Approximately 19 m of the upper part of the SMF buildings will be seen rising above the southern end of the course. The effect of this built change will increase as one gets closer to it. At the southern end of the course there are two greens and a tee which are approximately 30 m from the proposed SMF buildings. Of note the WWTP is also visible from the golf course, and at a higher elevation. The proposed regional freight hub building will also be possibly visible below the golf course.
- 12.54 The Project will represent a distinct change in the composition of golfers' southward views.
- 12.55 While there will be views of the Project which will adversely affect current levels of amenity enjoyed from the course, the views will be transient.

12.56 Taking the above findings into account, in my opinion the Project will generate potentially '**Moderate-High**' but short-lived adverse visual effects. This is due to the Project's proximity, and its bulk and scale, particularly when experienced from the southern end of the course.

With hillock removed

12.57 Whether the hillock is retained or removed has no bearing on the visual effects of the Project from the golf course. The hillock is well separated from the golf course and Project and offers no screening benefits.

12.58 However, if the hillock was removed, the difference to golfers' views is that more of WIAL will be visible. Cumulative effects of increased built development in the scene, contributed to by the Project will come into play. There will be a nett loss in natural elements and patterns in the field of view from the course. However, this is not enough to tip the adverse effects to 'High'.

12.59 In my opinion any potentially adverse visual effects of the Project on golfers will gradually increase to at worst '**Moderate-High**' when near the Project, although these effects will be short-lived.

Conclusion – Visual Effects

12.60 To summarise, aesthetic coherence of the landscape is derived from all the senses, although the visual sense is typically pre-eminent⁵⁶ for most people where one's appreciation of the landscape is largely obtained. The visual realm comes under 'amenity values' as defined in the RMA⁵⁷, the other attributes being pleasantness, cultural and recreational values.

12.61 I acknowledge in Section 12 above that the key generators of visual effects concern the following:

- a Earthworks including the removal of part of a ridgeline.
- b Introduction of the SMF, which includes high, bulky industrial buildings.

12.62 WIAL's possible removal of the hillock which will open views to the Project. This removal will also have a 'side effect' where the context for the Project will include fewer natural elements and patterns in it. This would otherwise help to offset the

⁵⁶ ...those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness aesthetic coherence, and cultural and recreational attributes, Section 2 RMA.

⁵⁷ ...those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness aesthetic coherence, and cultural and recreational attributes, Section 2 RMA.

effects of intensified industrial development arising from the Project and proposed regional freight hub building.

12.63 In my opinion, any potentially adverse visual effects arising from the Project will be at worst **'Moderate-High'** for some residents of Strathmore Park who can see the Project. These residences are shown within the receiving environment on **Attachment 3 of Appendix C and Figure 1**. Other parties affected to a similar degree include golfers, and those walking past the Project on Stewart Duff Drive (**Table 1**).

Viewing location	Effect with 'hillock' in place	Effect with 'hillock' removed
Strathmore Park	'Moderate-High'	'Moderate'
Public tracks	'Moderate'	'Moderate'
Stewart Duff Drive	'Moderate' to Moderate-High	'Moderate-High'
Moa Point Road	'Low'	'Low'
Airport terminal	'Very Low'	'Moderate-High'
Tarmac/aircraft	'Low'	'Low'
Golf course	'Moderate-High'	'Moderate-High'

Table 1: Summary of levels of visual effects.

12.64 The retention or removal of the 'hillock' by WIAL will influence the visual effects - in some instances greatly. With the hillock in place the Project is fully screened from medium-term fixed views from the airport terminal building. With the hillock removed, the Project will be fully visible from the airport terminal building, with **'Moderate-High'** adverse visual effects. In other instances where full or partial screening is not possible, the hillock provides a natural 'balance' or 'offset' to the Project. Conversely, for some parties, the removal of the hillock will open up sea and sky views reducing cumulative effects.

13 Cumulative effects

13.1 Cumulative effects are the effects of a proposal in combination with existing previous developments plus consented, unbuilt development. The designated,

relatively large⁵⁸ regional freight hub building on WIAL land opposite the Project will increase the prominence of industrial built development in the vicinity of the Project compared to now. Cumulative effects come into play where the effects of a proposal exceed the landscape's capacity to accommodate further change. A 'tipping point' is reached where the landscape's values become compromised.

- 13.2 The Project will, from some vantage points such as to the west, appear 'allied with' existing patterns of industrial development⁵⁹ and from some vantage points appear to 'step outside' these patterns - such as to views from the northeast. To these northeast views, existing industrial development in front of, or backdropping the SMF buildings will be less present.
- 13.3 In my opinion, cumulative effects will be triggered where the Project is seen from locations to the northeast of the site, within the receiving environment. In this regard, cumulative effects will be borne by some Strathmore Park residents⁶⁰ and by golfers where the SMF buildings will be seen in the saddle which previously provided an open viewshaft to the sea and sky between the upper WWTP and the hillock. In this regard the SMF buildings will be seen to an extent 'alone' and separated from existing industrial development as the buildings will not be backdropped by or have other industrial forms in their foreground (**Attachment 21 of Appendix C**).
- 13.4 This effect is increased slightly by the removal of part of the ridgeline at the northern end of the site where the lower parts of the northern SMF buildings will be more visually exposed due to the reduction in landform screening.

14 Natural character

- 14.1 The SMF site is located within the 'coastal environment', as mapped in the Wellington City Proposed District Plan ('**WCPDP**'). The SMF is not identified in the WCPDP as being within a 'High Coastal Natural Character Area' or 'Coastal or Riparian Margins' (**Figure 6 below**).
- 14.2 Policies 13-15 of the New Zealand Coastal Policy Statement 2010 address natural character, natural features and natural landscapes within the coastal environment. As a result, I have assessed the effect of the SMF on the natural

⁵⁸ This building will be substantially larger than the existing DHL warehouse currently opposite the site.

⁵⁹ Existing patterns of industrial development include the upper WWTP, Cyclotek building, WIAL buildings located between the runway and the hillock and the future regional freight hub building.

⁶⁰ Residents of Bunker Way, part of Nuku Street, Raukawa Street and Tairaroa Street.

character, features and landscapes within the coastal environment as they are articulated in the NZCPS.

I do not consider that natural character, features, or landscapes within a coastal sphere are very apparent at the site. This is largely due to the site's almost fully modified character where any coastal features if they ever existed have been largely extinguished. In addition, the remnant spur to the south of the site provides a physical separation from coastal processes, and to a large degree coastal influences⁶¹.

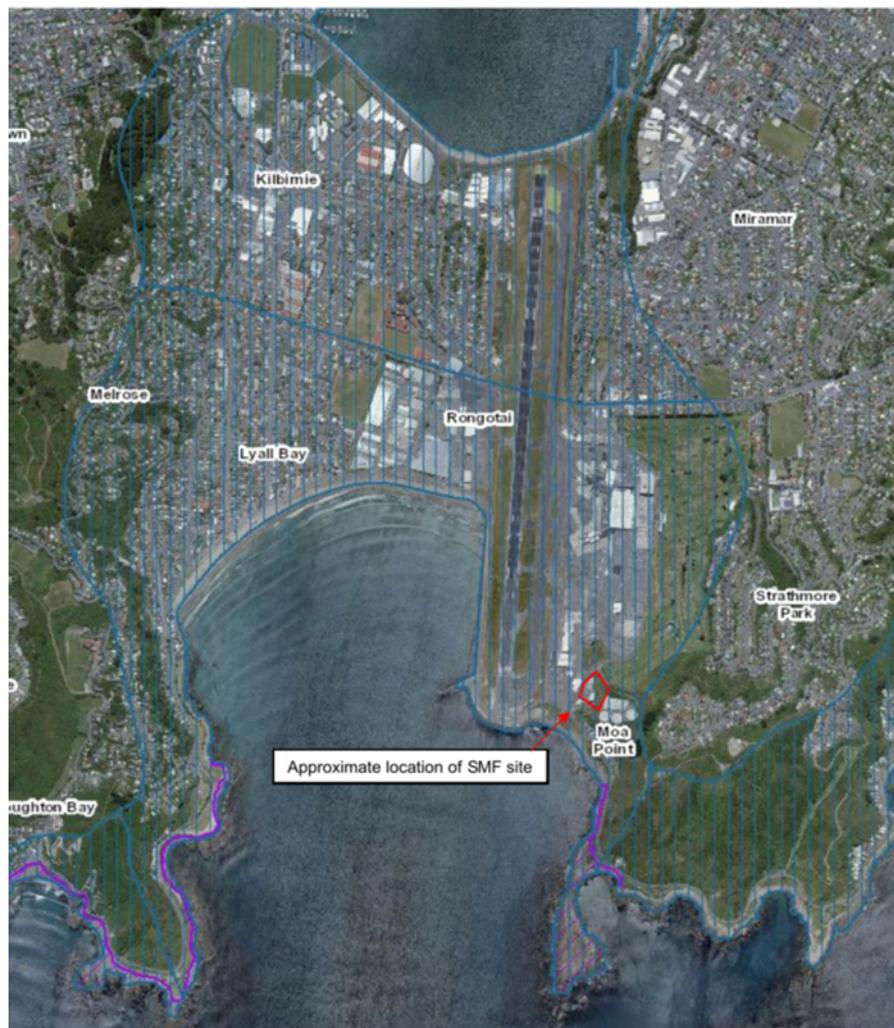


Figure 6: Extent of the coastal environment (blue hatching) and high coastal natural character areas (purple hatching), as mapped in the WCPDP.

14.3 Whilst the site is identified as being within the Coastal Environment under the WCPDP, I note that the objectives and policies permit a range of development outside of High Coastal Natural Character Areas and Coastal Riparian Margins.⁶² A further section of the WCPDP specifically relates to Infrastructure within the

⁶¹ It is assumed that in southerly storm events, wind-blown spray would enter the site.

⁶² WCPDP, Objective CE-O5, Policy CE-P2, Policy CE-P8, Policy CE-P10, Policy CE-P12.

Coastal Environment - with policies and objectives to enable new infrastructure in the Coastal Environment (as well as upgrades to existing infrastructure) provided it is outside of the High Coastal Natural Character Areas and Coastal Riparian Margins.⁶³

- 14.4 Due to the highly modified landscape condition, largely attributed to the Airport, but also by changes to the natural topography and other built development, the values⁶⁴ of the WCPDP Coastal Environment such as narrow shore platforms, steep rugged escarpments and cliff faces are in my opinion absent at the site or are dominated by extensive landform modification to provide for industrial development. However, coastal values exist nearby relative to the site, from the Moa Point community eastwards. It is also my opinion, that the Project will have no effect on the natural character of the coast.

15 Proposed mitigation

- 15.1 I have assessed a collection of relatively utilitarian built forms arranged at the site and shown modelled in my supporting graphic attachments in a 'worse -case scenario'. I have considered the mitigation measures, restricted to recessive colours to be included when determining my overall effects rankings.
- 15.2 I understand that due to WIAL's requirements, the SMF buildings are unable to be screened or buffered from view by trees⁶⁵.
- 15.3 Due to the inherent surface instability of the headwall, scaling processes will be part of the Project. I understand that the extent of scaling works and stabilisation methodology is still to be determined by the engineer as geotechnical investigations are currently underway. As such I cannot comment on how the headwall will appear in its mitigated state. I understand that mitigation techniques may include shotcrete coloured to match natural substrate colours, vegetated wire mattresses, low retaining walls or a combination of these. Some parts of the headwall will be left as is.
- 15.4 The treatment of the headwall is not considered to provide a strong level of mitigation to the buildings themselves as it is behind the buildings. However, the visibility of the SMF buildings will be determined to a degree by how much

⁶³ WCPDP, Policy INF-CE-P18, Policy INF-CE-P24.

⁶⁴ From the PDP; P1 Introduction – Coastal Environment: *"The western and southern parts of this coastline are largely undeveloped. Narrow shore platforms and steep escarpment and cliff faces are typical along this part of the coastline, where exposure to rigorous environmental conditions has helped shape rugged landforms. At the same time the urban areas have been heavily modified, with public roads present nearly the entire length of the coastline around the harbour from Sinclair Head to Petone, with residential and commercial development having modified the natural character throughout this area."*

⁶⁵ WIAL requests that large-scale planting such as tall trees are to be avoided as such trees would provide roosting for birds, potentially affecting flight operations and safety.

contrast there is between the buildings and the headwall. In this regard the treatment of the headwall and its visual character needs to be considered in my opinion.

- 15.5 Through discussions with the SMF building's designers, I have relied on the following requirements or limitations in my effects conclusions which contribute to mitigating the landscape effects of the Project:⁶⁶
- a Approximate building heights will be at most 27 m high⁶⁷.
 - b All building colours will have maximum LRVs⁶⁸ of 42% from the blue / blue-grey / grey / green and brown hues. This excludes the gas bag which shall not be white but will have an LRV where practicable not exceeding 42%.
 - c All concrete parts of buildings visible to the public will be finished or textured in such a way where an equivalent maximum LRV of 42% is achieved.
 - d Reflective materials including stainless steel, unpainted galvanised steel, copper or polycarbonate translucent will not be used.
 - e Glazing will include low-reflectivity glass.
 - f External lighting will be appropriately shielded to avoid light spill and be used for wayfinding and security purposes only.
 - g The SMF buildings will not include advertising or signwriting/branding imagery other than for health and safety and way-finding purposes only, for the benefit of site users.
 - h Fences, gates and walls will be as inconspicuous as practicable.

16 Response to submissions

- 16.1 Several submissions were received that included points relevant to landscape matters. These points included:
- a Landscape conditions;
 - b Cumulative effects generated by the Project considering the removal of the hillock and further development at WIAL;

⁶⁶ McGimpsey EIC, Appendix A, Condition 21.1.

⁶⁷ Heights listed are relative to current site ground level, as opposed to the NZ Vertical Datum 2016.

⁶⁸ Light reflectance value which applies to colours applied to products (such as paint and powdercoating).

- c Effects on the coastal environment, taking into consideration areas with landscape protection under the Wellington City Council Proposed District Plan;
- d Building heights / scale and visualisations of buildings; and
- e Mitigation.

Guardians of the Bays

- 16.2 Guardians of the Bays ('GOTB') raised an apparent discrepancy in the proposed maximum building heights discussed in the LVA, shown in the supporting visualisations compared to what was included in the conditions in the AEE.
- 16.3 To clarify, the dimensions mentioned in the AEE conditions are heights relative to the New Zealand Vertical Datum 2016 whereas the LVA discussed building heights relative to site ground level. The heights of the buildings discussed in the LVA, shown in the visualisations, and assessed are no different to what is provided for in the conditions in the AEE, they just have a different base reference point.
- 16.4 The maximum heights of the buildings proposed are as stated in Section 9 of this evidence. This may dispel other concerns raised by GOTB that the buildings are up to 10 m taller than what are shown in my visualisations. However, for completeness I will address further landscape related GOTB concerns.
- 16.5 GOTB raised a concern regarding the cumulative effects of the development. I agree with GOTB that the Project will have a cumulative effect, given the current industrial setting, and that it will "...*look like a continuation of Wellington Airport activities.*"⁶⁹ Cumulative effects are discussed in this evidence at Section 13 and are assessed to differ in magnitude depending on the location of the viewing audience.
- 16.6 It is also my opinion, that the Project will have a degree of compatibility with existing industrial development at and near Moa Point which reduces the Project's effects for some parties, notably those in the wider setting outside the receiving environment. From further away, the Project will be seen as 'part and parcel' of like development where there will be negligible effects – neither positive nor adverse. The Project will be visible, but as it will be seen 'cradled' amongst

⁶⁹ GOTB submission, page 2.

like development in front and above, it will not appear incongruous in the setting. This effect is evident in my **Attachments 15 – 18 of Appendix C**.

- 16.7 GOTB's submission states that "it is rather disingenuous to say in the landscape assessment that viewing distances outside a 'receiving environment' have a 'negligible' effect ... this development will dominate the landscape of this part of the airport and coastal environment."⁷⁰ I do not agree with GOTB that the Project will dominate the landscape of this part of the airport and coastal environment. Rather, the Project contributes to an area of industrial development that is prominent at this part of the airport. The Project's effects on the coastal environment are discussed in this evidence at Section 14.
- 16.8 In response to GOTB's concerns around effects outside the receiving environment being 'negligible', determining the extent of the receiving environment was a two-stage process. The first step was to determine a likely study area where there may be a level of adverse effects generated by the Project. This was done initially through desktop study, followed up / confirmed through fieldwork. The study area is shown in **Attachment 2 of Appendix C**.
- 16.9 Following this process, a smaller area was determined within the study area which I refer to as the receiving environment (**Attachment 3 of Appendix C**). Within the receiving environment, where the Project will be clearly visible, it was assessed that the Project will generate adverse levels of effects at varying degrees. Outside of the receiving environment, the Project will not generate any adverse visual effects, due to viewpoint distance and the nature of views. For these parties outside of the receiving environment, the Project is assessed as sufficiently physically separated from the viewer, where the Project comprises a proportionally small element in the wider scene that includes other industrial development, helping to offset the visual presence of the new SMF buildings.
- 16.10 GOTB makes mention of several natural areas and features shown in the planning maps in the WCPDP and recommends that the natural characteristics of these areas are considered during detailed design of the SMF buildings. I agree with this as it supports appropriate place-based design outcomes. I understand that the Architect shares these views and has considered natural elements and processes to date which will be explored during detail design in later stages.
- 16.11 GOTB's submission discusses the colours and low LRV proposed and that more should be done to reduce visual bulk and scale. I agree with GOTB that more can and should be done when the design for the SMF is finalised to further reduce

⁷⁰ GOTB submission, page 3.

bulk and scale effects. I understand that the Project is not yet fully resolved in terms of its final architectural detail as this would be premature for an NOR, as opposed to a proposal for a resource consent.

- 16.12 As such, the visualisations are limited in that they simply show a worse-case design, using a natural colour with a low LRV. I understand that the final architectural outcome will include appropriate materiality, surface texture, patterning and colour/s that will assist the SMF buildings to contribute more positively to the setting compared with what is shown in the visualisations.
- 16.13 The finish on the concrete retaining walls is also commented on by GOTB in their submission. I understand that the retaining walls will be low, retaining the foot of the headwall and as such will be largely screened by the SMF buildings. I agree with GOTB that the concrete should be left to naturally weather and age which could be included in the conditions.

Wellington International Airport Ltd ('WIAL')

- 16.14 At paragraph 6.24 of its submission WIAL lists four points seeking methods to reduce bulk and scale, glare and reflectivity of the SMF buildings. WIAL submits that these four points be included to 'strengthen' the proposed WCC 21.1 Design and Appearance conditions to ensure that the adverse effects on the receiving environment are better mitigated. All of the points raised by WIAL would provide for a good landscape outcome in my opinion.
- 16.15 One of WIAL's suggestions was to consider variations in building characteristics to promote the building permeability⁷¹. However, the site is small which I understand requires the buildings to be close to one another. Achieving visual permeability between buildings may not be possible. However, visual permeability can also be achieved at the small scale via building modulation, window placement and physical openings into the site which may benefit those passing by close to the SMF.
- 16.16 Landscape treatment is raised by WIAL. I understand that as the site is small and will be largely built upon, the scope for planting and other landscape works will be limited. However, there may be scope for amenity planting that will benefit site users and those passing by close to the site. In my opinion, it is unlikely that

⁷¹ Building permeability, in a landscape sense includes gaps between buildings or parts of buildings where there will be opportunities for views to open space, sky, sunlight, natural elements and patterns.

100% of the site will be built upon / paved. There will be 'leftover' areas. Any planting opportunities should be carefully sought out and maximised.⁷²

- 16.17 I agree with the matters of design raised by WIAL. All aspects represent appropriate architectural design principles in my opinion, which I support. These points have been drafted into proposed conditions through a required Design Statement.⁷³

Strathmore Park Residents Association

- 16.18 Strathmore Park Residents Association ('SPRA') raise a concern in their submission that the recessive colour of the Project is "woefully inadequate" to mitigate the visual effects of the Project from their perspective. I agree with the intent of this statement. In the absence of screen planting due to WIAL safety requirements, mitigation of landscape effects must begin with the articulation of the built forms, considering such things as variability of built outline, texture and materiality. Colour is a 'last step', although no less important.
- 16.19 As discussed above at paragraph 16.12, the Project is presented in my visualisations in a worse-case scenario (although it includes recessive colours). A fully resolved design is not available yet which means an Outline Plan of Works will be submitted after the NOR has been confirmed.
- 16.20 However, a recessive colour such as what is depicted in the visualisations, can be relied on as a minimum standard. A 42% maximum LRV is included in the conditions⁷⁴. I understand through discussions with the project team and Roger Dowling (project architect) during the preparation of my LVA and later, while preparing this evidence that there will be opportunities for improved colours / colour combinations and nuances, while meeting the 42% maximum LRV.
- 16.21 I understand from discussions with Mr Dowling that the proposed SMF buildings will include design features that will assist their compatibility with the landscape such as variation of building form, modulation, pattern, and surface texture which will also contribute to visually reducing the built mass. These aspects will be included in the Outline Plan of Works stage.
- 16.22 While the Project is large and will have a level of adverse effect on Strathmore Park residents, many of the key attributes of the visual context which hold amenity value for this party remain prominent, such as the landforms, open green

⁷² McGimpsey EIC, Appendix A, condition 21.1.

⁷³ McGimpsey EIC, Appendix A, condition 21.1.

⁷⁴ McGimpsey EIC, Appendix A, condition 21.1. Excluding the gas bag which will not be white but will achieve a maximum 42% LRV as far as is practicable.

space of the golf course, tree cover and ocean (**Attachments 20, 21 of Appendix C**).

17 Response to Section 42A Officer's Report

- 17.1 The Section 42A Officer's Report responds to Landscape and Visual matters at section 8.1.2. In the last paragraph it concludes that the landscape and visual effects of the Project are 'acceptable'. The Council Officer's conclusion around the acceptability of the Project is based on the existing site context, which is a modified industrial one combined with agreed Project conditions which have been drafted in response to submitters, WIAL's and Council's concerns.
- 17.2 I generally address the site context in section 6 of my evidence and conditions in section 15 under 'Proposed Mitigation'.
- 17.3 Accordingly, I agree with the Council Officer's finding and am confident that the Project will be an acceptable addition to its industrial setting where the conditions are met.
- 17.4 The Council Officer discusses the difference between landscape works, firstly, to provide a 'visual screen' or secondly, to 'moderate' adverse visual effects. The former is not possible due to WIAL's concerns regarding tall planting that may provide roosting / increased numbers of birds in the area, which in turn may disrupt safe flight operations. Council understand and support the operational and safety requirements of the airport. Moderating⁷⁵ adverse visual effects of the Project is theoretically possible, but not proposed as the SMF buildings and hardstand will likely take up most of the available site. I acknowledge this in my evidence at Section 15 and in paragraph 16.16 of my evidence in response to submissions.
- 17.5 I further note that any amendments to the site layout may well provide opportunities for landscape works which may assist with moderating the adverse visual effects of the Project from nearby, ground-based views.
- 17.6 Accordingly, I agree with the Council officer that in this case landscape works that would screen the Project are not possible nor practical, although I am confident that opportunities will arise for landscape works determined in some locations within the site following detailed design of the facility. Such low level amenity type

⁷⁵ Moderating a building or development is different to screening it from view. 'Buffering' is another way of describing a moderating effect. The effect of moderating something is to include relatively more attractive elements in the scene or around something. The building or development will remain visible, but to a lesser degree. Moderating elements will usually comprise vegetation that is appropriate / expected in the area. The purpose of 'moderating' is to provide the new pattern or element with an acceptable degree of assimilation into its setting.

planting may moderate the visual effects of the Project for some parties, notably those passing by on Stewart Duff Drive.

18 Conclusion

- 18.1 This evidence has considered the potential landscape effects of the Project. Visual effects are included separately, but form part of the broader landscape effects assessment.
- 18.2 The character of the site is a result of quarrying activity and as such the Project will be located in an almost fully modified environment. Site characteristics are largely industrial and unattractive, contributing low amenity values. The site is opposite WIAL and a WWTP is located perched above the site. 'Designation 58' currently partly covers the SMF site (and will be expanded as part of this NOR) which provides for future wastewater treatment development and activity.
- 18.3 Opposite the site, WIAL proposes to construct a new 9,500 m² and 8.5 m high regional freight hub building, replacing the current, smaller approximately 1,250 m² building. A hillock is located to the north of the site which may be removed by WIAL to provide for airport activities. The potential removal of this hillock has implications on the landscape and visual effects of the Project due to its screening ability.
- 18.4 Potentially adversely affected parties are several and mixed. These include air travellers, those walking past the site on Stewart Duff Drive, residents in parts of Strathmore Park⁷⁶ and golfers. People around Lyall Bay and Rongotai will be able to see the Project, however it will visibly occupy a small part of extensive industrial development at WIAL and as such will have acceptable visual effects. The greatest adverse landscape effects will be felt by some Strathmore Park residents and golfers, the former who are permanent occupants in the receiving environment and the latter, the closest to the Project.
- 18.5 Presently, mitigation is limited to the use of recessive colours for the buildings. However, during detailed design other aspects will be considered such as building modulation, textures, pattern and line and colour refinement which will contribute further to mitigating the built forms.⁷⁷ Vegetation is unable to be part of any meaningful mitigation due to WIAL requirements that tall planting is to be avoided.

⁷⁶ Residents of Bunker Way, part of Nuku Street, Raukawa Street, Tairaroa Street and Kekerenga Street.

⁷⁷ McGimpsey EIC, Appendix A, condition 21.1.

18.6 The most potentially affected parties are located at Strathmore Park and the golf course, where there will be 'Moderate-High' adverse visual effects generated by the Project. There will also be 'Moderate-High' adverse visual effects of the Project on those at the airport if the hillock is removed by WIAL. The 'Moderate-High' effects will be short-lived for golfers and those at the Airport.

Jeremy Everett Head

18 November 2022

Appendix A Seven-Point Scale of Effects

- 1 From Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines (2022). The definitions come from NZILA national workshop discussions prior to the publication of the guidelines and are based on the Boffa Miskell effects descriptions.

- 1.1 The below seven-point scale is used to describe effects:
 - a **Very High:** Total loss to the key attributes of the receiving environment and/or visual context amounting to a complete change of landscape character

 - b **High:** Major change to the characteristics or key attributes of the receiving environment and/or visual context within which it is seen; and/or a major effect on the perceived amenity derived from it.

 - c **Moderate-High:** A moderate to high level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate-high level of effect on the perceived amenity derived from it.

 - d **Moderate:** A moderate level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate level of effect on the perceived amenity derived from it. (*Oxford English Dictionary Definition: Moderate: adjective-average in amount, intensity or degree*).

 - e **Moderate-Low:** A moderate to low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate to low level of effect on the perceived amenity derived from it.

 - f **Low:** A low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a low level of effect on the perceived amenity derived from it. (*Oxford English Dictionary Definition: Low: adjective-below average in amount, extent, or intensity*)

 - a **Very Low:** Very low or no modification to key elements/features/characteristics of the baseline or available views, i.e., approximating a 'no-change' situation

- 2 The terms ‘minor’, ‘less than minor’, ‘more than minor’ and ‘significant’ are RMA terms that are used as one of the ‘gateway’ tests for non-complying activities (s104D), determining whether an application should be publicly notified (s95A), or testing whether a person is an affected person (s95E). This effects scale is generally used by planners and decision makers who consider all the disciplines and their separate effects collectively.
- 2 The Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines (2022) (at section 6.21) provides indications as to how the ratings in the 7-point scale are likely to correspond to effects levels that are commonly used in RMA decision making. The table (reproduced below) indicates that ‘moderate’ and ‘moderate-high’ generally equates to ‘more than minor’ in RMA terms, and that ‘low’ or ‘moderate to low’ correspond to ‘minor’, ‘very low’ and ‘low’ corresponds to ‘less than minor’, ‘high’ or ‘very high’ correspond to ‘Significant’ which is also a ‘more than minor’ adverse effect.



Diagram of the overlapping 7-point scale with RMA level of effects⁷⁸

⁷⁸Te Tangi a te Manu – Aotearoa New Zealand Landscape Assessment Guidelines (2022). Prepared by Gavin Lister, Rachel de Lambert and Alan Tichener, available at: https://nzila.co.nz/media/uploads/2022_09/Te_Tangi_a_te_Manu_Version_01_2022_.pdf, at para 6.39.

Appendix B 3D modelling methodology

- 1 The 3D modelling of the Project shown in the Attachments 15 – 21 of Appendix C were prepared using the below methodology:
 - a The Beca design model for the SMF - created using Revit, P3D & Civil 3D was federated together in the NZTM coordinate system, including a vertical Datum of NZVD 2016
 - b Jeremy Head provided 50 mm focal length site images with photographic viewpoint locations and elevations ASL marked on a plan.
 - c Locations of photographs in NZTM coordinates were obtained from the WCC website:
<https://gis.wcc.govt.nz/LocalMapsViewer/?map=95a0685dff724fc19035abd59c630b14>
 - d The photographic viewpoint locations were transposed as 'virtual' viewpoints in Navisworks 3D model with view direction and elevation adjusted to suit the actual photographic viewpoint position and elevation.
 - e Existing civil surfaces beyond the site and Project were included in the model renders to aid in the alignment of the model with the base photograph.
 - f The rendered images were exported from Navisworks in jpeg format.
 - g The modelled images were overlaid onto the site photographs and further rendered using Adobe Photoshop.

Appendix C Graphic attachments

Appendix C: Landscape and Visual Evidence - Graphic Attachments

Jeremy Everett Head for Wellington City Council

Proposed Sludge Minimisation Facility - Moa Point

18 November 2022



LOOKING NORTHWARDS TO SITE FROM INTERSECTION OF STEWART DUFF DRIVE AND MOA POINT ROAD. PHOTOGRAPH BY J. HEAD, 19 JANUARY 2022.

f = 50 mm WITH INDIVIDUAL IMAGES STITCHED TOGETHER USING ADOBE PHOTOSHOP.



WELLINGTON WATER PUMP STATION BUILDING AND GANTRY PROPOSED TO BE INCORPORATED INTO PROPOSAL. PIPES AT RIGHT LINK WITH UPPER WATER TREATMENT PLANT.



UPPER WATER TREATMENT PLANT ON RIDGE, AGS BUILDING BELOW WITHIN SITE. CYCLOTEK BUILDING AT FAR RIGHT (OUTSIDE SITE)



AGS AUTOMOTIVE BUILDING - PROPOSED TO BE RELOCATED OFF SITE ON WIAL LAND



CYCLOTEK BUILDING AT CENTRE (OUTSIDE SITE). DHL WAREHOUSE (AND SHADOW) AT RIGHT.



DHL WAREHOUSE OPPOSITE SITE. STEWART DUFF DRIVE IN FOREGROUND

ATTACHMENT 1 SLUDGE MINIMISATION FACILITY - MOA POINT THE SITE



ARTISTS IMPRESSION OF BUILDING FROM CORNER OF MOA POINT ROAD AND STEWART DUFF DRIVE



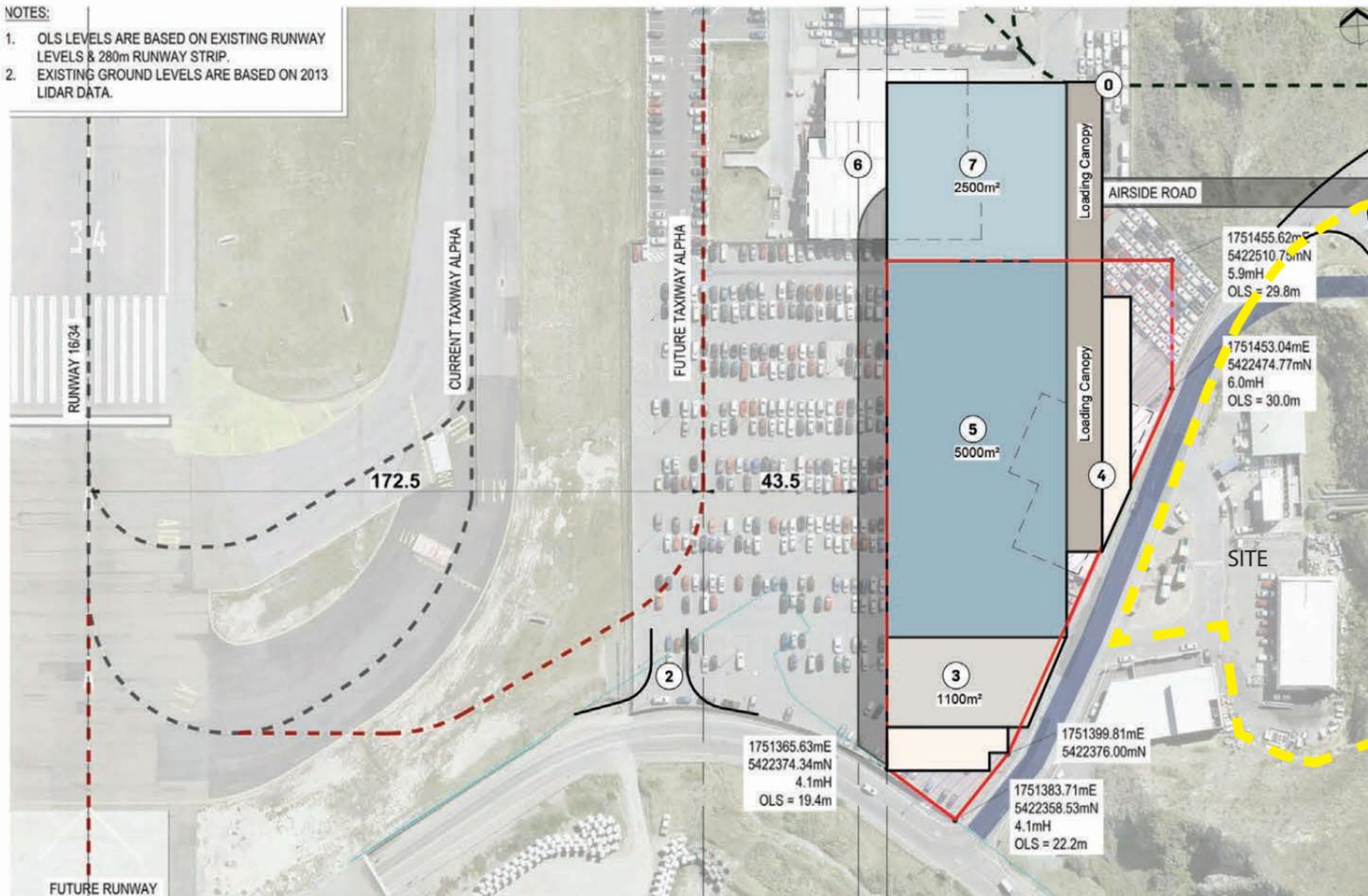
ARTISTS IMPRESSION OF BUILDING LOOKING SOUTH FROM ABOVE STEWART DUFF DRIVE



ARTISTS IMPRESSION OF BUILDING LOOKING NORTH FROM STEWART DUFF DRIVE

NOTES:

1. OLS LEVELS ARE BASED ON EXISTING RUNWAY LEVELS & 280m RUNWAY STRIP.
2. EXISTING GROUND LEVELS ARE BASED ON 2013 LIDAR DATA.



STAGING PLAN

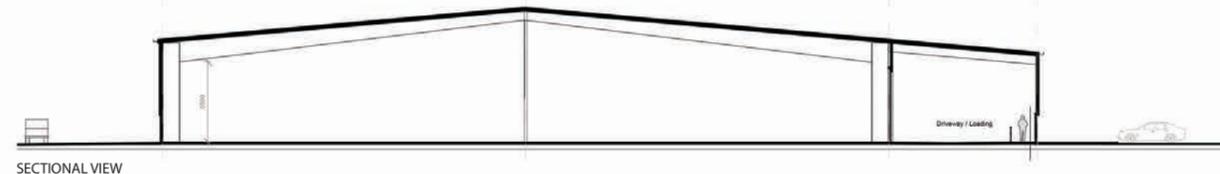
To allow for operators to be moved it is proposed to break the project into stages allowing the site to be cleared for each upcoming stage. Starting with relocating the rental cars and creating a new freight drive entrance before building the first stage of the building to allow DHL to move prior to demolition of their current facility to make way for the second stage of the building. Once that stage is built and Air New Zealand has moved the final temporary stage would be added to the North end.

- 0 Rental car parking relocated to school site
- 1 New freight drive entry
- 2 New long term carparking entrance
- 3 New DHL building & yard
- 4 Demolish existing DHL building
- 5 New Logistics Centre (stage 1)
- 6 Demolish existing Annex building
- 7 New Logistics Centre (stage 2)

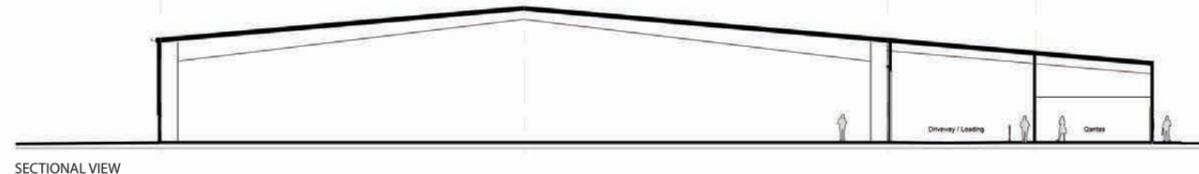
The building is proposed to have a simple gable form to ensure maximum efficiency structurally and from a cladding as space point of view.

The eastern drive through loading space and administration area are proposed to be enclosed within this form to maximise efficiency.

The height of the building is proposed to be 5.5m to the knee of the portal frames as operators indicated that they would not utilise greater height.

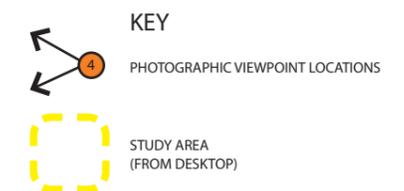


SECTIONAL VIEW

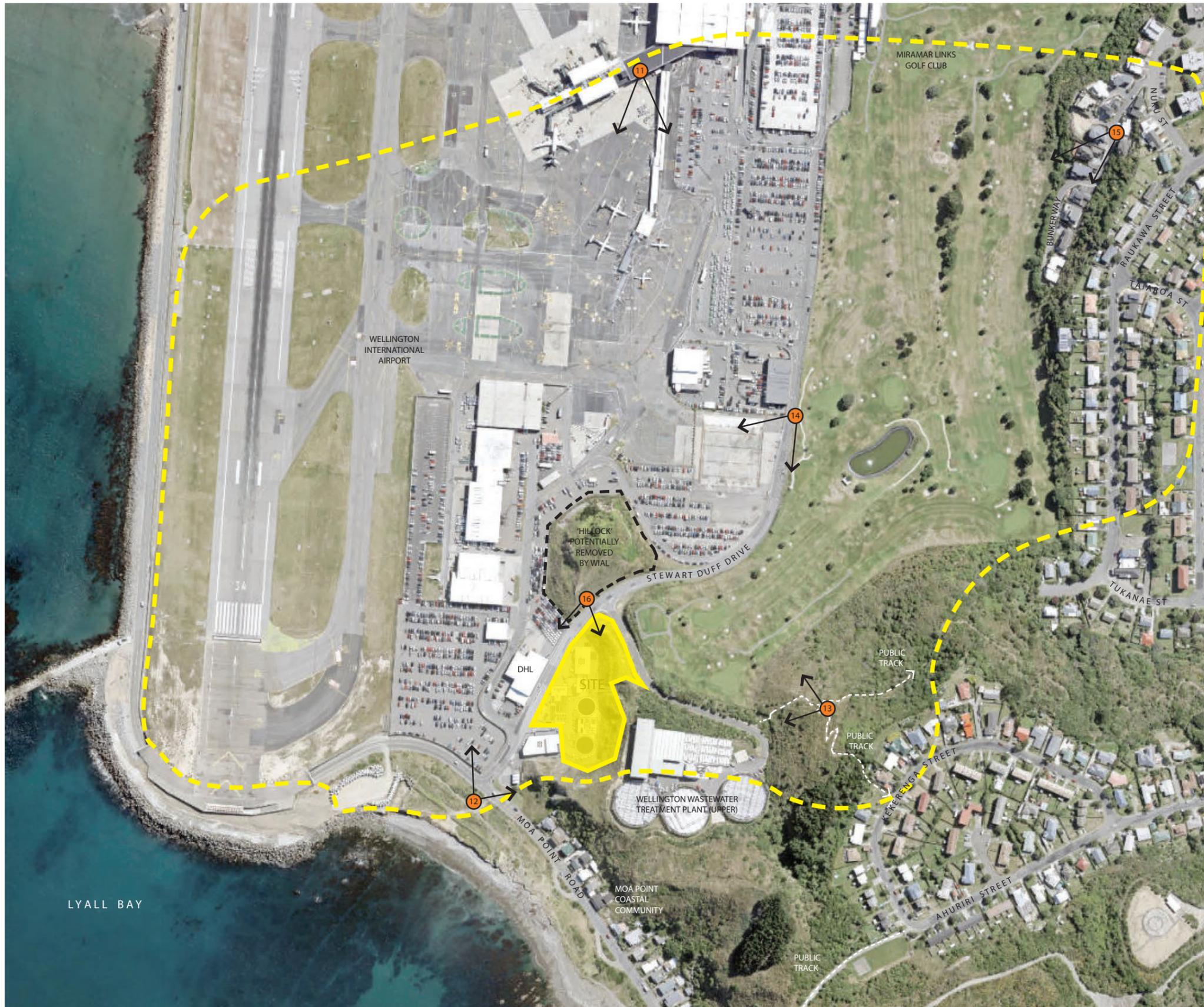


SECTIONAL VIEW

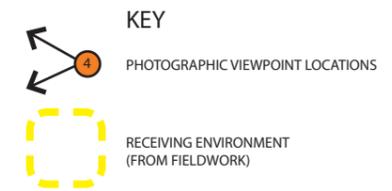
ATTACHMENT 1a SLUDGE MINIMISATION FACILITY - MOA POINT PROPOSED REGIONAL FREIGHT HUB BUILDING (WIAL)



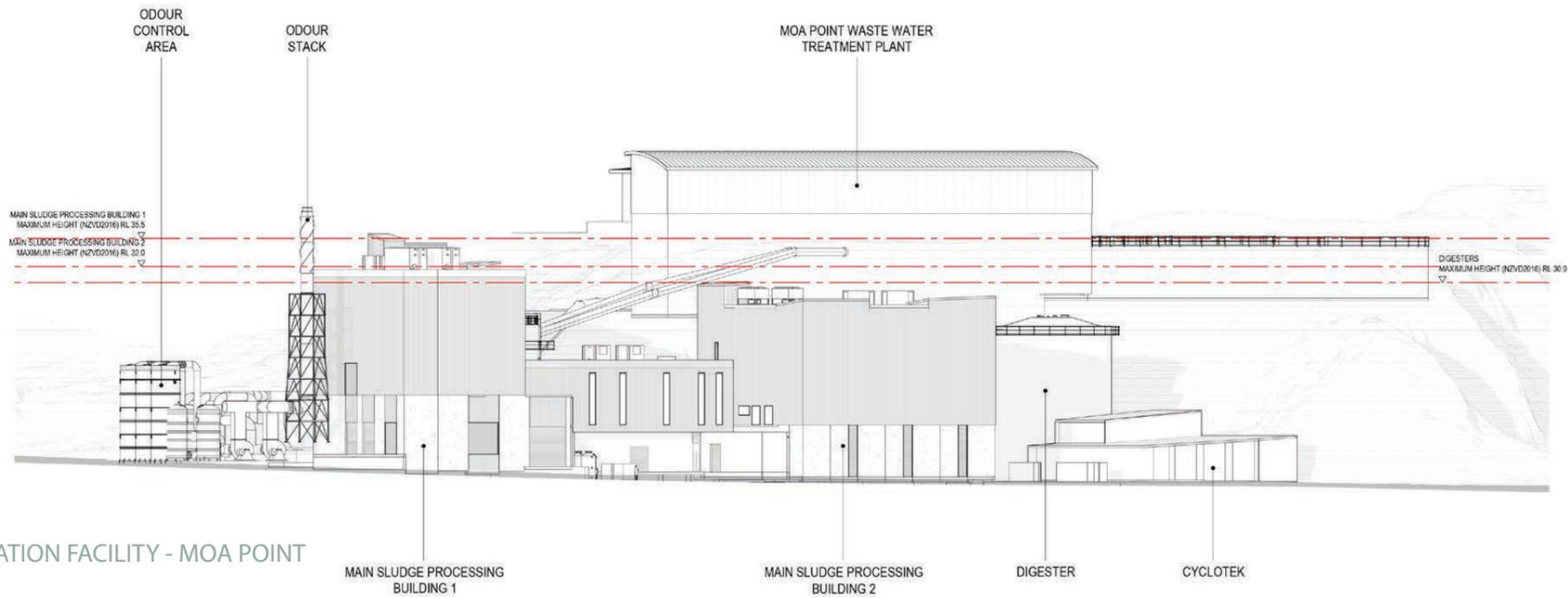
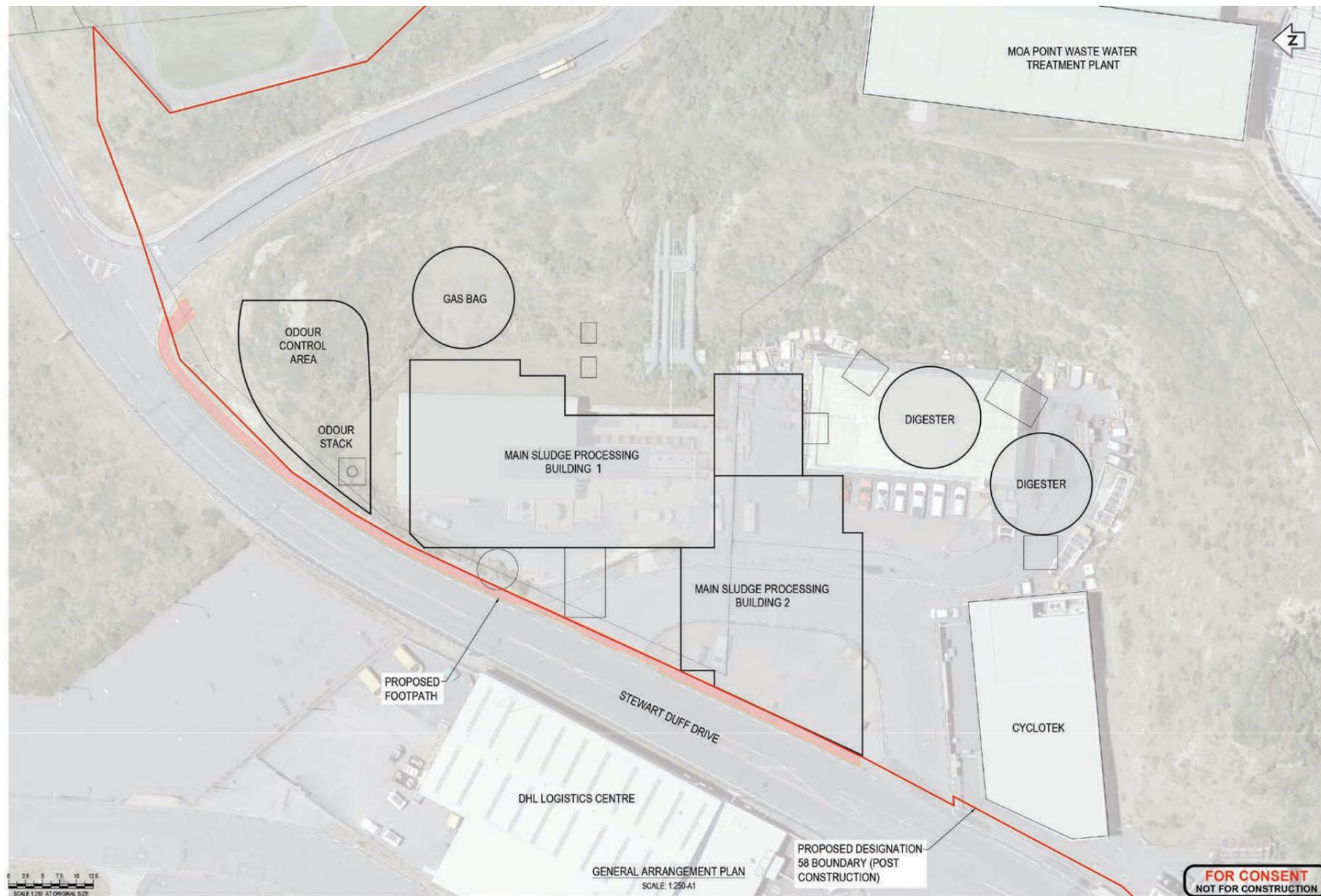
ATTACHMENT 2 SLUDGE MINIMISATION FACILITY - MOA POINT
LANDSCAPE CONTEXT & STUDY AREA & VIEWPOINT LOCATIONS 1



MOA POINT BEACH AND SEASIDE COMMUNITY ON SOUTH SIDE OF MOA POINT. THE SITE IS ON THE FAR SIDE OF THE POINT, NOT VISIBLE FROM THESE PROPERTIES. PHOTOGRAPH TAKEN BY J. HEAD, 12 AUGUST 2021. f = 50 mm.



ATTACHMENT 3 SLUDGE MINIMISATION FACILITY - MOA POINT RECEIVING ENVIRONMENT & VIEWPOINT LOCATIONS 2



ATTACHMENT 4 SLUDGE MINIMISATION FACILITY - MOA POINT
PROPOSAL





VIEWPOINT 1 LOOKING SOUTHWARDS TO SITE FROM TIRANGI ROAD, RONGOTAI



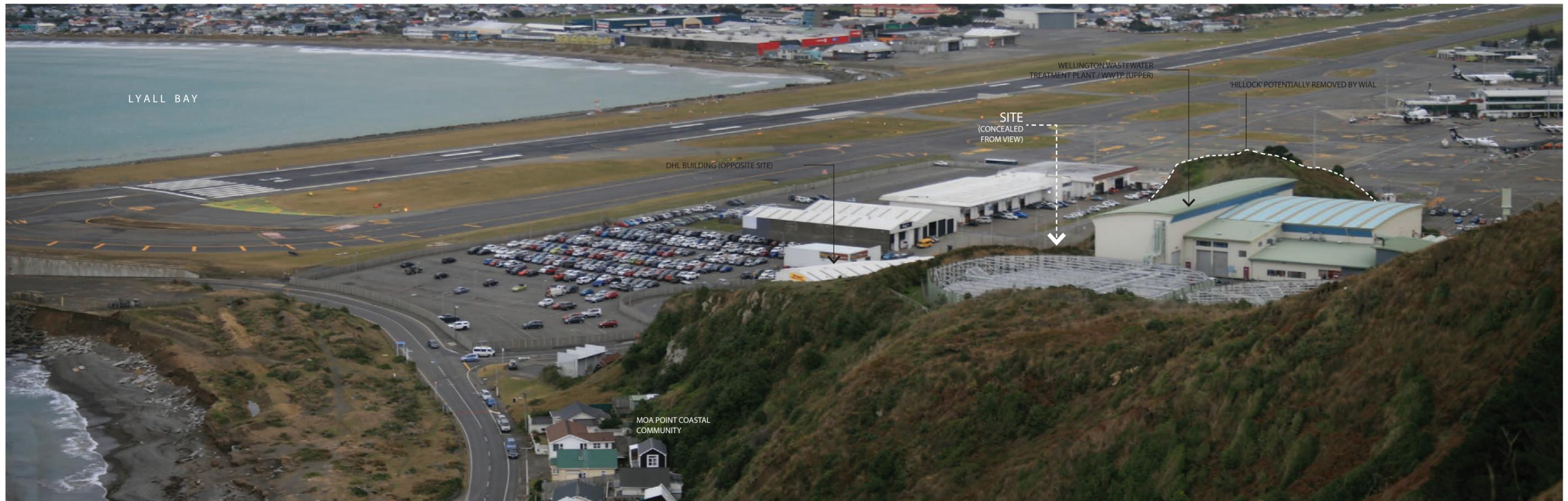
VIEWPOINT 2 LOOKING WESTWARDS FROM TUKANAЕ STREET, STRATHMORE. SITE AND PROPOSAL NOT VISIBLE DUE TO INTERVENING RIDGE.

ATTACHMENT 6 SLUDGE MINIMISATION FACILITY - MOA POINT

PHOTOGRAPHIC VIEWPOINTS



VIEWPOINT 3 LOOKING WESTWARDS FROM PUBLIC WALKWAY ABOVE TUKANAE RESERVE, STRATHMORE. SITE AND PROPOSAL NOT VISIBLE DUE TO INTERVENING RIDGE.



VIEWPOINT 4 LOOKING NORTH WEST FROM PILL BOX ACCESSED VIA PUBLIC TRACKS ON MOA POINT.

ATTACHMENT 7 SLUDGE MINIMISATION FACILITY - MOA POINT PHOTOGRAPHIC VIEWPOINTS

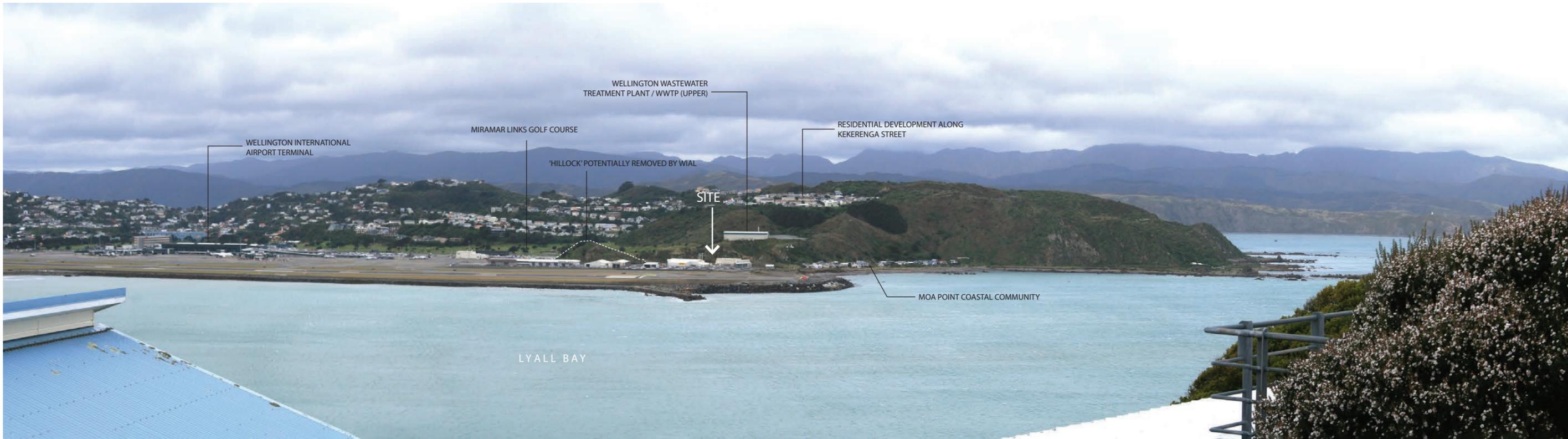


VIEWPOINT 5 LOOKING EASTWARDS FROM PUBLIC RESERVE ALONG WESTERN SHORELINE OF LYALL BAY

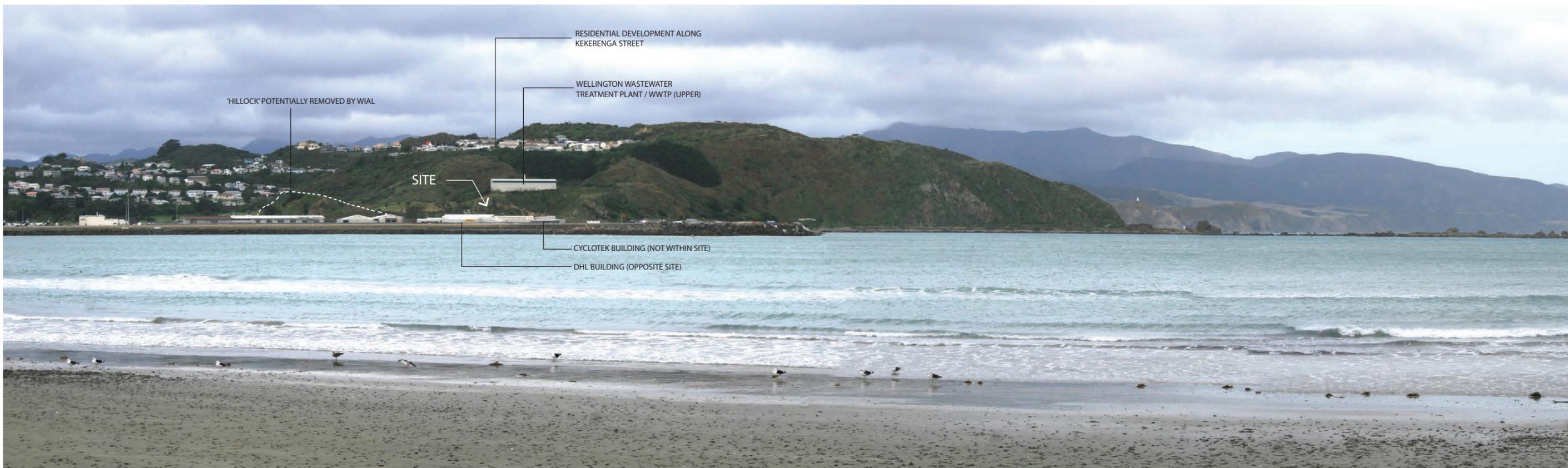


VIEWPOINT 6 LOOKING NORTHEAST FROM PUBLIC RESERVE AT WESTERN HEADLAND OF LYALL BAY

ATTACHMENT 8 SLUDGE MINIMISATION FACILITY - MOA POINT PHOTOGRAPHIC VIEWPOINTS



VIEWPOINT 7 LOOKING EAST FROM VIEW ROAD ABOVE LYALL BAY TOWARDS MIRIMAR, MOA POINT AND SITE.



VIEWPOINT 8 LOOKING EASTWARDS FROM PUBLIC RESERVE ALONG WESTERN SHORELINE OF LYALL BAY

ATTACHMENT 9 SLUDGE MINIMISATION FACILITY - MOA POINT PHOTOGRAPHIC VIEWPOINTS



VIEWPOINT 9 LOOKING SOUTHEAST FROM BEACH AT LYALL BAY NEAR SURF CLUB AND PLAYGROUND ACROSS LYALL BAY TO AIRPORT, MOA POINT AND SITE.



VIEWPOINT 10 LOOKING SOUTHEAST FROM BEACH AT LYALL BAY ACROSS AIRPORT RUNWAY TO MOA POINT AND SITE.

ATTACHMENT 10 SLUDGE MINIMISATION FACILITY - MOA POINT
 PHOTOGRAPHIC VIEWPOINTS



WELLINGTON WASTEWATER
TREATMENT PLANT / WWTP (UPPER)

SITE

'HILLOCK' POTENTIALLY REMOVED BY WIAL

DHL BUILDING (OPPOSITE SITE)

VIEWPOINT 11 LOOKING SOUTH FROM PUBLIC VIEWING LOUNGE IN AIRPORT TERMINAL TOWARDS 'HILLOCK' (SITE CONCEALED).

ATTACHMENT 11 SLUDGE MINIMISATION FACILITY - MOA POINT PHOTOGRAPHIC VIEWPOINTS



VIEWPOINT 12 LOOKING NORTHWARDS FROM ABOVE MOA POINT ROAD TOWARDS THE SITE



VIEWPOINT 13 LOOKING WEST FROM PUBLIC TRACK ABOVE WWTP DOWN TOWARDS SITE

ATTACHMENT 12 SLUDGE MINIMISATION FACILITY - MOA POINT PHOTOGRAPHIC VIEWPOINTS



VIEWPOINT 14 LOOKING SOUTH FROM STEWART DUFF DRIVE.



VIEWPOINT 15 LOOKING SOUTH FROM BUNKER WAY

ATTACHMENT 13 SLUDGE MINIMISATION FACILITY - MOA POINT
 PHOTOGRAPHIC VIEWPOINTS



MIRAMAR LINKS GOLF COURSE

BUNKER WAY

DWELLINGS ALONG
RAUKAWA STREET

LOOKING NORTH FROM PUBLIC TRACK ABOVE WWTP TOWARDS RESIDENTIAL DEVELOPMENT AT MIRAMAR.

ATTACHMENT 14 SLUDGE MINIMISATION FACILITY - MOA POINT PHOTOGRAPHIC VIEWPOINTS



FROM VIEWPOINT 1: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE

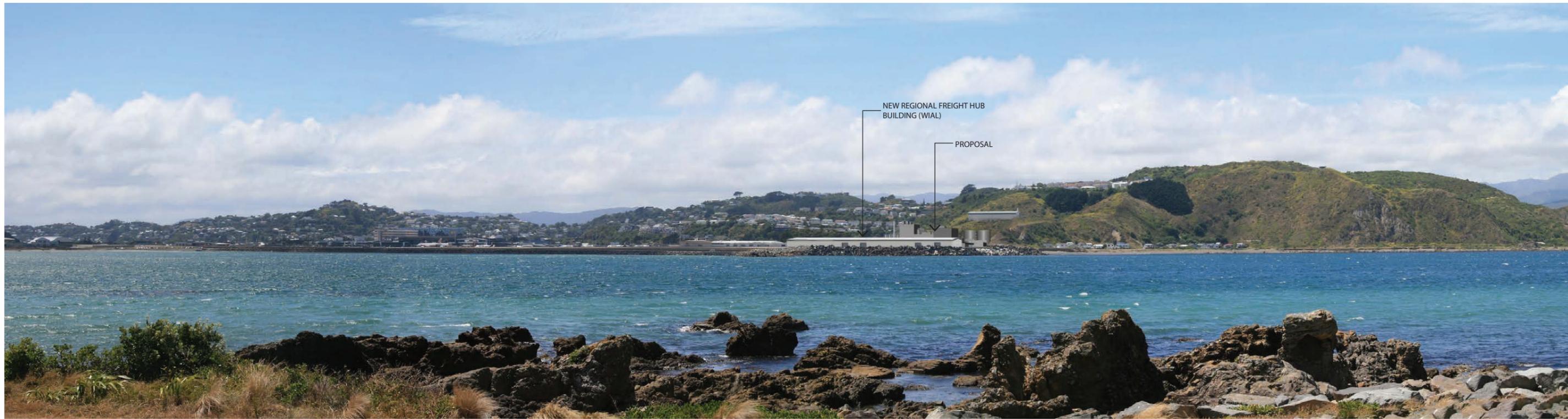


FROM VIEWPOINT 1: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) AND HILLOCK REMOVED

ATTACHMENT 15 SLUDGE MINIMISATION FACILITY - MOA POINT VISUALISATIONS OF PROPOSAL

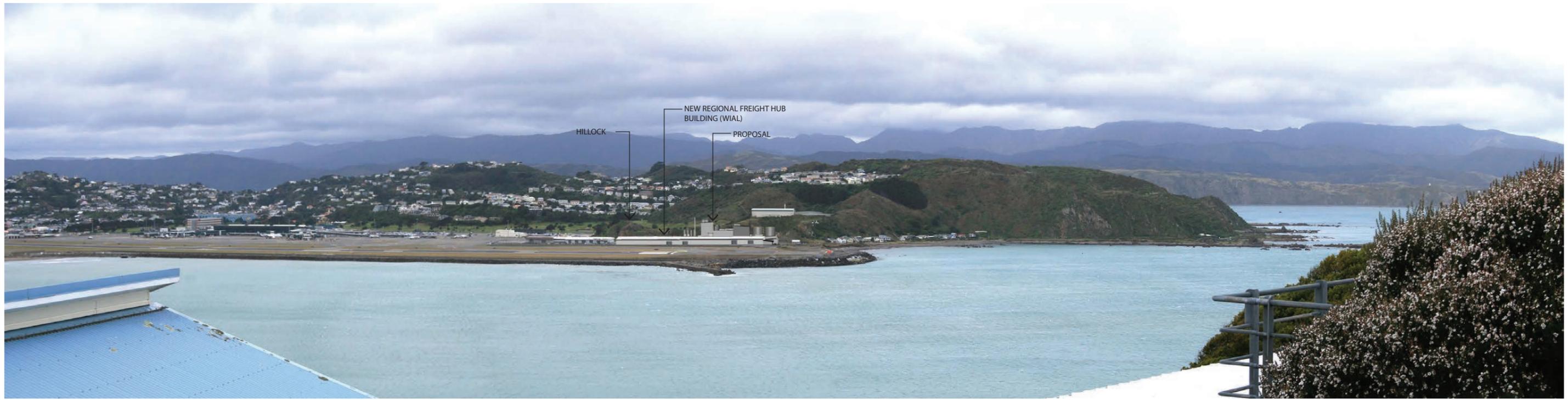


FROM VIEWPOINT 5: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE



FROM VIEWPOINT 5: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE AND HILLOCK REMOVED

ATTACHMENT 16 SLUDGE MINIMISATION FACILITY - MOA POINT VISUALISATIONS OF PROPOSAL



FROM VIEWPOINT 7: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE



FROM VIEWPOINT 7: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE AND HILLOCK REMOVED

ATTACHMENT 17 SLUDGE MINIMISATION FACILITY - MOA POINT
VISUALISATIONS OF PROPOSAL



FROM VIEWPOINT 9: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE



FROM VIEWPOINT 9: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE AND HILLOCK REMOVED

ATTACHMENT 18 SLUDGE MINIMISATION FACILITY - MOA POINT VISUALISATIONS OF PROPOSAL

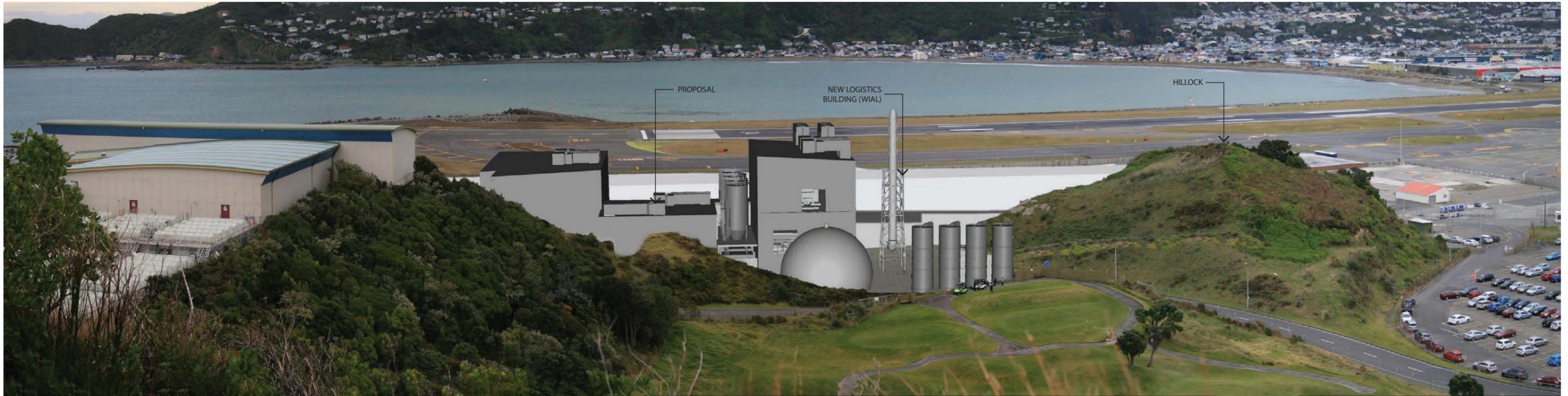


FROM VIEWPOINT 11: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE

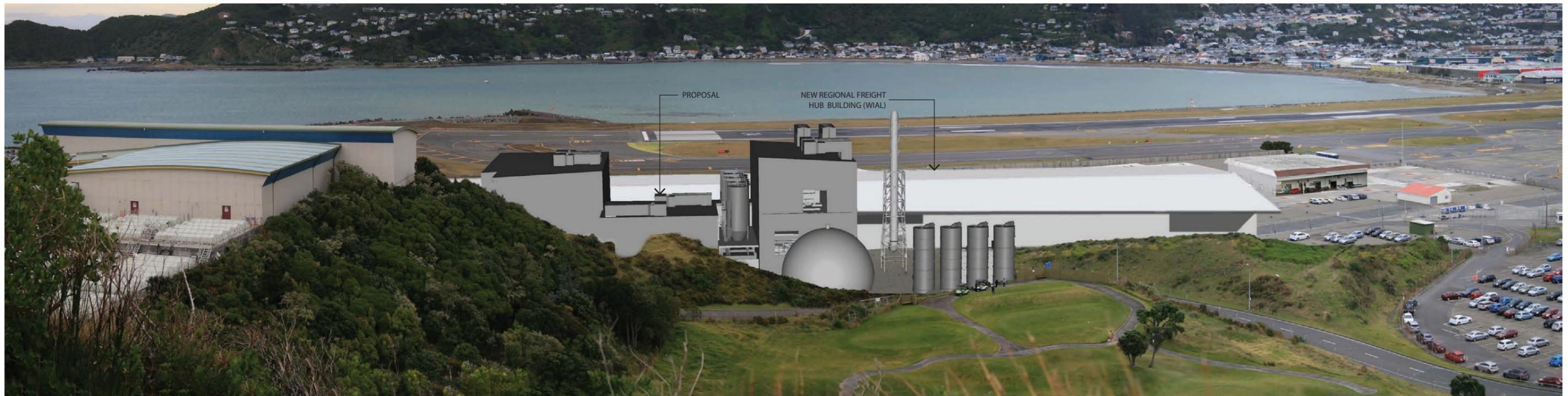


FROM VIEWPOINT 11: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE AND HILLOCK REMOVED

ATTACHMENT 19 SLUDGE MINIMISATION FACILITY - MOA POINT
 VISUALISATIONS OF PROPOSAL



FROM VIEWPOINT 13: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE



FROM VIEWPOINT 13: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE AND HILLOCK REMOVED

ATTACHMENT 20 SLUDGE MINIMISATION FACILITY - MOA POINT VISUALISATIONS OF PROPOSAL



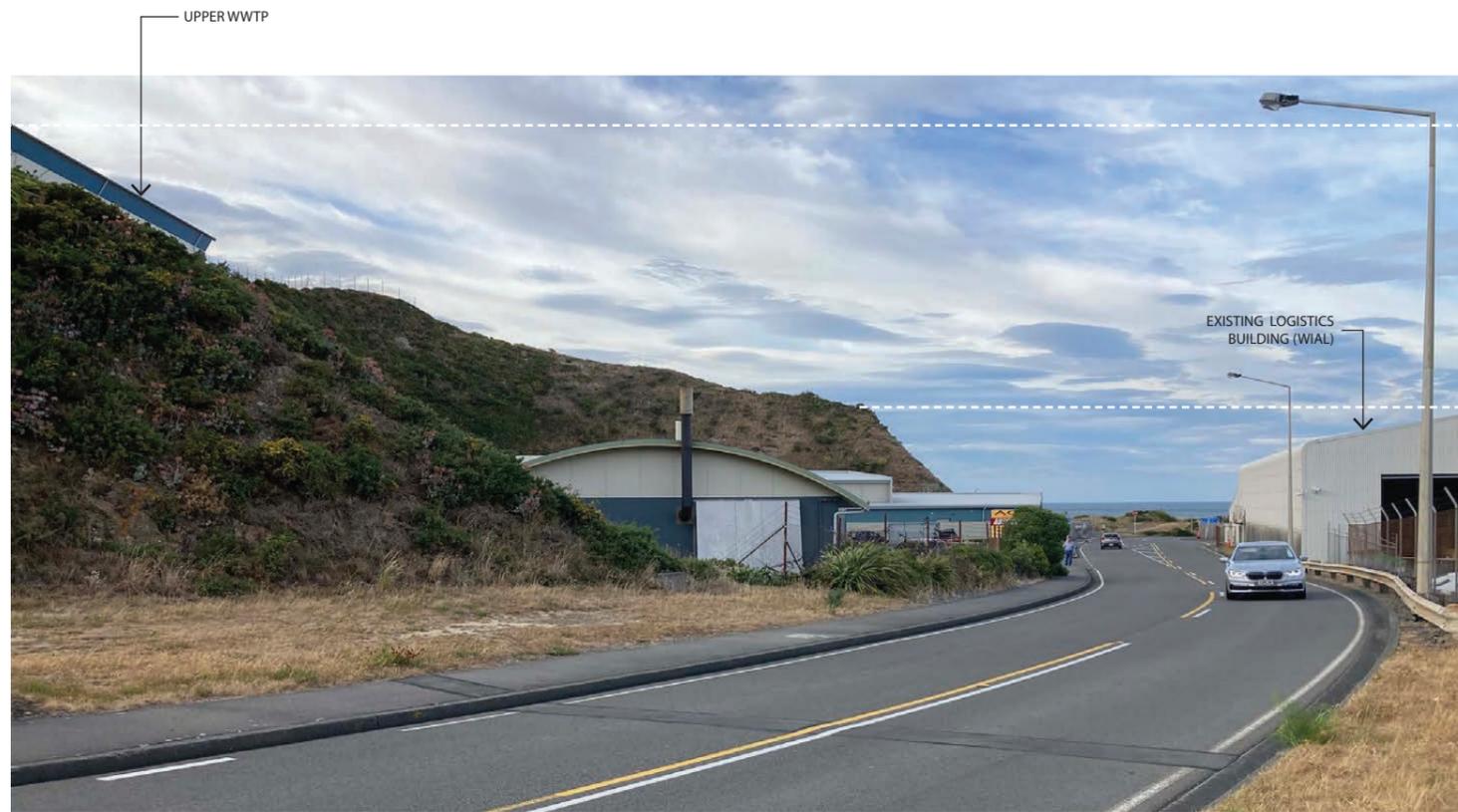
FROM VIEWPOINT 15: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE



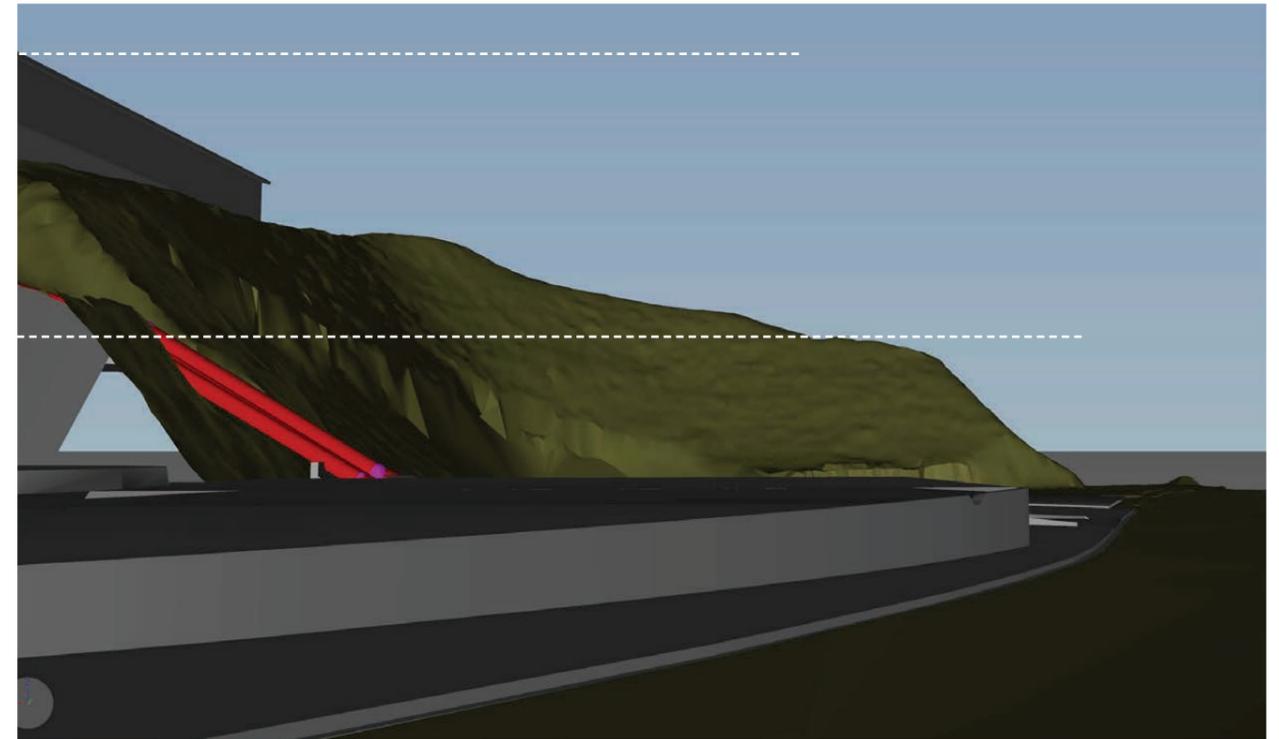
FROM VIEWPOINT 15: PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE AND HILLOCK REMOVED

ATTACHMENT 21 SLUDGE MINIMISATION FACILITY - MOA POINT
VISUALISATIONS OF PROPOSAL

NOVEMBER 2022 PHOTOGRAPH TAKEN BY J. HEAD, 19 JANUARY 2022. f = 50 mm WITH INDIVIDUAL IMAGES STITCHED TOGETHER USING ADOBE PHOTOSHOP.



VIEWPOINT 16 LOOKING SOUTHWARDS DOWN STEWART DUFF DRIVE



VIEWPOINT 16 MODELLED BASED ON SAME PHOTOGRAPHIC VIEWPOINT LOCATION.



VIEWPOINT 16 LOOKING SOUTHWARDS DOWN STEWART DUFF DRIVE WITH PROPOSAL AND NEW REGIONAL FREIGHT HUB BUILDING (WIAL) IN PLACE

ATTACHMENT 22 SLUDGE MINIMISATION FACILITY - MOA POINT
VISUALISATIONS OF PROPOSAL