



**Auckland Regional Landfill
Private Plan Change Request**

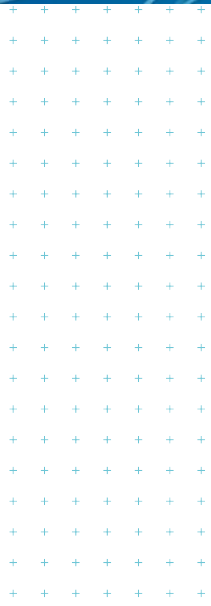
**Assessment of Effects and Section 32
Analysis**

Prepared for
Waste Management NZ Ltd

Prepared by
Tonkin & Taylor Ltd

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Executive summary

Waste Management NZ Ltd (WMNZ) is New Zealand's leading provider of comprehensive waste and environmental services in New Zealand, and is a major player in the waste industry across the Auckland region. WMNZ has purchased approximately 1,020 ha of land in Wayby Valley, and is proposing to construct and operate an engineered modern municipal solid waste landfill on that land. The landfill would be known as the Auckland Regional Landfill.

WMNZ has gone through an extensive site identification and selection process over nearly a decade, which considered a range of factors including access, site size, buffer availability, geology and environmental and cultural factors. This process resulted in the identification of the Wayby Valley site as the preferred location for the landfill due to a number of features, including:

- Its proximity to central Auckland;
- Its proximity to State Highway 1;
- Ability to maintain adequate separation distance from sensitive receivers;
- Avoidance of identified and mapped sites of cultural significance;
- Avoidance of significant ecological features and other features identified in the Auckland Unitary Plan (AUP);
- Appropriate underlying geology.

Extensive investigation of the proposed precinct has been undertaken for the purpose of supporting the resource consent application which was lodged in May 2019. Consequently, WMNZ requests a private plan change (PPC) to recognise the distinct set of characteristics of this site. This PPC seeks to introduce a new precinct into the AUP – the Auckland Regional Landfill Precinct. The precinct will identify the precinct in the planning maps, and will introduce new provisions, specific to the precinct. The reasons for the PPC are summarised as follows:

- To appropriately recognise landfills as infrastructure within the AUP, by identifying a site within Auckland that has been assessed as being suitable for a new landfill, and describing this site through the use of a precinct and managing future effects of activities within the precinct through bespoke objectives, policies and rules;
- In anticipation of a landfill being established at the site, providing recognition of the site in the planning framework for the Auckland Region, consistent with the treatment of other large scale infrastructure in the region, and to manage potential future reverse sensitivity effects;
- To enable efficient operation of a future landfill at the site throughout its operating life, by targeting future re-consenting requirements to the nature of the discharge and measures to avoid, remedy or mitigate effects.

This report assesses the PPC against the requirements of Schedule 1 and s32 of the RMA, and concludes:

- The proposed precinct will generate positive effects, and has no level of potential adverse effects which would make the site unsuitable for consideration for landfill construction and operation.
- The precinct and sub-precinct provisions will ensure future development within the Precinct gives effect to and is consistent with the AUP Regional Policy Statement, the regional and district plan objectives and policies in the AUP, as well as the Auckland Plan.
- The proposed precinct, including the objectives, are consistent with the purpose of the RMA. The proposed objectives of the PPC are considered to be the most appropriate and effective

means of achieving the purpose of the RMA, compared to the current zone or practicable alternative options.

- The proposed precinct is considered to be the most appropriate option for achieving the objectives of the PPC and more broadly the objective and policies of the Unitary Plan. The PPC will efficiently and effectively achieve the overarching objectives of the AUP, in particular the themes of enabling infrastructure whilst ensuring effects of future activities within the precinct are appropriately assessed and managed.

1 Introduction

1.1 Background

Waste Management NZ Ltd (WMNZ) is New Zealand's leading provider of comprehensive waste and environmental services in New Zealand, and is a major player in the waste industry across the Auckland region. WMNZ has purchased approximately 1,020 ha of land in Wayby Valley, and is proposing to construct and operate a municipal solid waste landfill on that land. The landfill would be known as the Auckland Regional Landfill.

The Auckland Regional Landfill will provide a new solid waste management and disposal facility to replace the Redvale Landfill, which currently provides for disposal of approximately 50 % of Auckland's solid waste (estimated as 1.6 million tonnes in the Auckland Council Waste Management and Minimisation Plan 2018).

WMNZ has gone through an extensive site identification and selection process over nearly a decade, which considered a range of factors including access, site size, buffer availability, geology and environmental and cultural factors. This process resulted in the identification of the Wayby Valley site as the preferred location for the landfill due to a number of features, including:

- Its proximity to State Highway 1;
- Ability to maintain adequate separation distance from sensitive receivers;
- Avoidance of identified and mapped sites of cultural significance;
- Avoidance of significant ecological features and other features identified in the Auckland Unitary Plan (AUP);
- Appropriate underlying geology.

WMNZ purchased the land, comprising approximately 1020 ha, in order to secure a buffer from surrounding sensitive receptors. The landfill footprint itself will occupy approximately 60 ha within the precinct area. The landholdings have an underlying zoning of Rural Production Zone in the AUP.

A comprehensive resource consent application was been lodged in May 2019 seeking a suite of resource consent authorising the construction and operation of the Auckland Regional Landfill.

This report has been prepared on behalf of WMNZ to support a request for a Private Plan Change (PPC) to the Auckland Unitary Plan: Operative in Part (AUP). The purpose of the PPC is to create a new precinct to support the development and on-going operation of the Auckland Regional Landfill. Subject to securing the required resource consents, WMNZ will own all of the land that is proposed to be included within the new precinct, and the proposed precinct plan clearly identifies an area within the centre of WMNZ's landholdings (sub-precinct A) which will define the extent of any waste placement activities. The extent of the landholdings and the proposed precinct are shown in Figure 1, Appendix A.

Because this is a request for a PPC, it does not have any form of interim effect and it will not affect the processing or determination of the resource consent application. Notwithstanding that, WMNZ's intentions are for the PPC request and the resource consent applications to be pursued in parallel, and ideally for there to be joint public notification and a combined hearing process. This will be more efficient for Council, any submitters who wish to participate in either process, and for WMNZ.

Extensive investigation of the proposed precinct has been undertaken for the purpose of supporting the resource consent application. A list of the technical reports prepared for the resource consent application is included in Appendix B. The technical reports are referred to throughout this PPC, and have informed the conclusions drawn.

1.2 Waste in the Auckland Region

Waste in the Auckland Region comes in many forms and from various sources. Municipal Solid Waste can typically be categorised into residential, commercial and industrial, construction and demolition, or special wastes. Despite decreasing volumes on a per household basis¹, the population of the Auckland Region has historically been growing at a high growth rate, and based on this continued level of growth, it is expected by 2041 there will be 2.5 million people living within the Auckland Region. This population growth places pressure on regional infrastructure and puts greater emphasis on ensuring that the region has adequate landfill capacity to meet demand. Auckland's waste is estimated as 1.6 million tonnes per annum in the Auckland Council Waste Management and Minimisation Plan 2018 – averaging more than one tonne for every Auckland resident.

Auckland currently has two Class 1 landfill facilities – Redvale and Whitford.

- **Redvale Landfill** is located to the north of Auckland's CBD. It is owned and operated by WMNZ since 1993. Redvale holds consents to continue to accept waste until 2028, after which the landfill will no longer be permitted to receive waste unless new consents are obtained. Due to strong growth in the region, there is also the possibility that Redvale will be full before 2028. Redvale Landfill currently provides for disposal of approximately 50 % of Auckland's solid waste.
- **Whitford Landfill** is to the south of Auckland's CBD and is owned and operated as a joint venture between WMNZ and Auckland Council (operating as Waste Disposal Services) under operational management by WMNZ. The landfill was re-consented in 2005, at which time it was estimated that there was 9.5 Mm³ of remaining capacity in the landfill, to allow ongoing operation through until 2041. Depending on actual waste acceptance volumes, Whitford Landfill may also be full prior to the expiry date of 2041, however, Whitford's designation (ID-612 in the AUP) for the landfill restricts refuse vehicle movements to and from the landfill, which limits the annual volume which can be received to the site.

Claris Landfill on Great Barrier Island is also within the Auckland Region, but only accepts waste generated on the island.

A portion of Auckland's waste is sent outside of the region to Hampton Downs landfill, a large landfill in the north Waikato area. This site holds consents for the receipt of waste until 2030, and is consented for 30 Mm³ of waste. Some of Auckland's waste is sent to Northland Regional (Puwera) Landfill, located in Whangarei, a partnership between Whangarei District Council and Northland Waste Limited, and operated by the Northland Regional Landfill Limited Partnership. A 2015 estimate indicated approximately 600,000 tonnes of waste generated in Auckland was disposed of outside of the region, while approximately 200,000 tonnes from outside of the region was estimated to have been disposed of within Auckland.²

The vast majority of Auckland's waste disposal requirements are currently serviced by Redvale in the north, Whitford in the east and Hampton Downs to the south. Once Redvale closes, a landfill to meet Auckland's waste disposal requirements is needed, specifically those requirements north and west of the Auckland CBD. Once Whitford is full, there will be no landfill available within the bounds of the Auckland region, resulting in waste needing to be trucked out of the Auckland region, with associated increases in trucking distance and therefore costs and emissions associated with the transport of waste, as well as potentially increasing congestion on roads. Further, this would leave Auckland in the position of relying on other regions for provision of essential infrastructure. Consequently, WMNZ is seeking to develop the Auckland Regional Landfill as a replacement for Redvale Landfill.

¹ Auckland's Waste Assessment 2017 (Auckland Council, 2017)

² Auckland's Waste Assessment 2017 (Auckland Council, 2017)

1.3 Request for a Private Plan Change

This report has been prepared to support a request for a PPC on behalf of WMNZ and in fulfilment of Schedule 1 of the Resource Management Act 1991 (RMA). Part 2 of Schedule 1 sets out the requirements for requests for PPCs. This section summarises the key clauses of Schedule 1 which have been addressed in this report.

Clause 21(1) of Schedule 1 of the RMA states that “Any person may request a change to a district plan or a regional plan (including a regional coastal plan)”. Clause 22 outlines the required form of the request, and the below table sets out where the required information is provided in this assessment. Of particular note to this request is the requirement in clause 22(2) that where any environmental effects are anticipated, then these are only relevant to the extent that they result from the *implementation of the plan change*. In other words, the assessment of effects should be limited to any assessment of any effects arising from the amendments to the planning provisions proposed by this PPC request.

Table 1.1: Clause 22 requirements

Clause 22		Location in this report
(1)	A request made under clause 21 shall be made to the appropriate local authority in writing and shall explain the purpose of, and reasons for, the proposed plan or change to a policy statement or plan...	Section 3
	and contain an evaluation report prepared in accordance with section 32 for the proposed plan or change.	Section 6 (and Appendix C)
(2)	Where environmental effects are anticipated, the request shall describe those effects, taking into account clauses 6 and 7 of Schedule 4, in such detail as corresponds with the scale and significance of the actual or potential environmental effects anticipated from the implementation of the change, policy statement, or plan.	Section 4

1.4 Accepting the Plan Change Request (Clause 25)

The Council has discretion to accept, adopt, amend or reject a plan change request in accordance with Clause 25 of Schedule 1 of the Resource Management Act (RMA), subject to the matters set out in Clause 25 (4) (a)-(e). Below is our assessment of the PPC against Clause 25.

In summary, the PPC request, including the planning and technical analysis demonstrates that the site is a suitable place for the proposed precinct and therefore the PPC can be accepted under Clause 25.

Table 1.2: Clause 25 analysis

Available responses for Auckland Council	Comment
<i>(2)(a) adopt the request, or part of the request, as if it were a proposed policy statement or plan made by the local authority itself</i>	This would mean the request would be treated as a proposed plan change from Auckland Council. Whilst this option is available to Auckland Council, the applicant is not seeking that the PPC be adopted by Council.

Available responses for Auckland Council	Comment
<i>(2)(b) accept the request, in whole or in part, and proceed to notify the request</i>	<p>We consider that the PPC meets the criteria to be accepted by Council for processing, as demonstrated by the assessment against sub-clauses (3) and (4) below.</p> <p>If the local authority “accepts” the request, the procedure set out in Schedule 1, cl 26 applies.</p>
<i>(3) The local authority may decide to deal with the request as if it were an application for a resource consent</i>	<p>The applicant has applied for resource consent for the establishment and operation of the Auckland Regional Landfill under the existing AUP provisions. The proposed precinct does not remove the requirement to obtain resource consent for establishing and operating a landfill within the precinct, and as such the request could not be directly converted to a consent application.</p> <p>In addition, the purpose of the PPC (see Section 3) would not be achieved by a resource consent process. In particular, the landfill would not be recorded in the AUP maps, and nor would appropriate provision be made in the AUP for the future re-consenting of time-limited resource consents that might be granted (eg discharges to air or to land). Accordingly, it would not be appropriate for the PPC to be treated as though it were an application for resource consent.</p>
<p><i>(4) The local authority may reject the request in whole or in part, but only on the grounds that:</i></p> <p><i>(a) the request or part of the request is frivolous or vexatious; or</i></p> <p><i>(b) within the last 2 years, the substance of the request or part of the request—</i></p> <p style="padding-left: 20px;"><i>(i) has been considered and given effect to, or rejected by, the local authority or the Environment Court; or</i></p> <p style="padding-left: 20px;"><i>(ii) has been given effect to by regulations made under section 360A; or</i></p> <p><i>(c) the request or part of the request is not in accordance with sound resource management practice; or</i></p> <p><i>(d) the request or part of the request would make the policy statement or plan inconsistent with Part 5; or</i></p> <p><i>(e) in the case of a proposed change to a policy statement or plan, the policy statement or plan has been operative for less than 2 years.</i></p>	<p>The PPC is not frivolous or vexatious, and within the last 2 years the substance of the request or part of the request has not been considered by either the local authority or the Environment Court, or been given to effect to by regulations made under section 360A.</p> <p>The PPC is not contrary to sound resource management practice and, as discussed in the substance of this assessment to follow, the PPC has been carefully considered within the context of the objectives and policies of the AUP. In particular, the timing of the PPC is consistent with sound resource management practice. By applying for both a PPC and resource consents in parallel, there is transparency around WMNZ’s long term proposed use of the site. Further, a joint process will be more efficient for all parties.</p> <p>As discussed in Section 5, the PPC is consistent with the purpose and principles of Part 5 of the RMA. The AUP has been operative for more than 2 years.</p> <p>We do not consider that there is any basis for Council to reject the PPC request in whole or in part.</p>

1.5 Applicant and property details

1.5.1 Company overview

WMNZ is New Zealand's largest waste and environmental services company, with a long history in New Zealand dating back to 1935. The company is the market leader in the sector in New Zealand with an established national network of vertically integrated local waste and environmental management services.

WMNZ offers resource recovery, recycling and sustainable waste management solutions. WMNZ is strongly committed to the safe and responsible management of waste, regulatory compliance and the protection and enhancement of the environment.

Across New Zealand, WMNZ has ownership and/or operational interest in seven landfills, including both landfills in the Auckland Region (Redvale Landfill and Energy Park and Whitford Landfill and Energy Park). In addition, WMNZ has an ownership and/or operational interest in 29 refuse transfer stations and 17 materials recovery facilities across New Zealand. WMNZ has 70 branches country-wide, and employs 650 people in Auckland and more than 1,700 people across the country.

Table 1.3: Applicant and property details

Applicant	Waste Management NZ Limited
Owner and occupier of application site ³	Waste Management NZ Limited
Site address / map reference	1232 State Highway 1, Wayby Valley and part of Mahurangi Forest, Mahurangi, Auckland
Site area	Approximately 1020ha
Legal description	Part Section 94 Parish of Hōteio Part Allotment 163 Parish of Hōteio Lot 2 Deposited Plan 398682 Part Allotment 68 and Part Allotment 69 Parish of Hōteio Lot 2 Deposited Plan 210406 Lot 2 Deposited Plan 71574 Allotment 17 Parish of Hōteio North Western Portion Allotment 16 Parish of Hōteio Allotment 16 Parish of Hōteio Part Allotment 16 Parish of Hōteio Allotment 33 Parish of Hōteio North Western Portion Allotment 34 Parish of Hōteio Allotment S.E. 34 Parish of Hōteio Allotment 35 Parish of Hōteio Allotment 36-38 Parish of Hōteio Allotment 39 Parish of Hōteio Part North Western Portion Allotment 7 Parish of Hōteio, Part North Western Portion Allotment 8 Parish of Hōteio, Part South Eastern Portion Allotment 9 Parish of Hōteio and Part Allotment 117 Parish of Hōteio

³ WMNZ will settle and become the owner of the Eastern Block and Waiteraire Tributary Block (currently owned by Matariki) if and when consents are granted. WMNZ are already the owner/occupier of the Western and Southern Blocks.

	<p>Allotment 103 Hōteō Parish Southern Part Allotment 12 Parish of Hōteō Allotment 11, Allotment N12, Allotment 105-106, Allotment 177 and Allotment 184 Hōteō Parish Allotment 13-14 Parish of Hōteō, Middle Part Allotment 15 Parish of Hōteō and North Western Part Allotment 15 Parish of Hōteō Allotment N.M. 15 Parish of Hōteō Southern Portion Allotment 16 Parish of Hōteō South Eastern Portion Allotment 15 Parish of Hōteō And including any land shown for public roads, whether formed or unformed, within any of the titles listed, subject to appropriate interests in that land being transferred to WMNZ</p>
Certificate of Title reference	<p>NA42B/697, NA42B/699, 393450, NA939/169, NA138D/56, NA136/300, NA31B/790, NA279/207, NA1937/63, NA599/297, NA761/222, NA634/125, NA2D/102, NA26C/477, NA870/214, NA50B/713, NA907/217, NA1149/47, NA28A/580, NA1149/48, NA643/294, NA599/296, NA599/299, NA27D/570</p>
District and Regional Council Plan	Auckland Unitary Plan Operative in Part
Address for service during consent processing	<p>Tonkin + Taylor Ltd PO Box 5271, Wellesley Street Auckland 1141 Attention: Andrea Brabant Phone: 09 359 2759 Email: abrabant@tonkintaylor.co.nz</p>
Address for service during consent implementation and invoicing	<p>Waste Management NZ Ltd PO Box 228, Silverdale 0944 Attention: Bruce Horide Phone: 09 427 0613 Email: bhoride@wastemanagement.co.nz</p>

2 Precinct Location and Description

2.1 Location

The proposed precinct is located in Wayby Valley, approximately 70 km north of Auckland. State Highway 1 runs past the site to the south west, and the site is approximately 6 km southeast of Wellsford and 13 km northwest of Warkworth. The proposed precinct is within the jurisdiction of Auckland Council and therefore is subject to the provisions of the AUP.



Figure 2.1 Location plan

Source: Land Information New Zealand

2.2 Site selection

The Wayby Valley site was chosen as a suitable landfill site as a result of an extensive site identification and selection process, which commenced from 2007. Given the extent of development in Auckland, the site selection process was particularly complex, as it is difficult to find sites which do not have identified values (e.g. cultural, environmental overlays) that would make a landfill inappropriate or impracticable to construct, and which have sufficient buffers from surrounding land uses and environmental receptors. It is unlikely that any site would meet all criteria. Therefore, the assessment of the suitability of a site for a landfill becomes a balance of trade-offs. These key drivers were ranked in terms of a constraint hierarchy, which was applied as part of the site identification process. The process followed and the key selection criteria used are outlined in Appendix D. This application does not identify the other sites considered. This is due to commercial sensitivity and the potential impact on current landowners of the other sites, as the vast majority would be unaware that their land was being considered, potentially causing significant uncertainty for them if this information was made public.

Landfills are typically located within valley systems, as valley shapes provide a much more efficient use of land for waste disposal. If flat land is utilised, the waste must be placed at a much lower

grade, relative to natural ground level, than the grades which can be achieved within a valley system, and as such, a much larger area of land would be required in order to accommodate the same volumes of waste. It is highly likely that any large valley system within the Auckland Region which may be suitable for development as a landfill, will have streams present due to the terrain and climatic conditions in Auckland (subtropical with high rainfall).

The Wayby Valley site was identified as the preferred site for the landfill development following this extensive site selection process. The Wayby site scored highly in the assessment due to:

- its proximity to central Auckland
- its proximity to the state highway to enable suitable access without disruption to communities on minor roads;
- availability of buffer to sensitive receptors;
- large enough to provide a regional facility for Auckland;
- absence of sites of identified cultural significance, SEAs and other identified features in the AUP (or PAUP as it was then);
- appropriate underlying geology with conditions which could be addressed through additional engineering; and
- limited number of land owners.

In summary, the land within the proposed precinct was considered to be the most appropriate for landfill development subject to design and construction methods.

2.3 Precinct area overview

The proposed precinct covers an area of approximately 1,020 ha that comprises a mixture of terrain and land use typologies, including pastoral farmland and plantation forestry. The proposed precinct comprises a number of legal titles. The certificates of title that make up the proposed precinct are listed in **Table 1.3**. The topography of the proposed precinct rises gradually from the Hōteu River and farmland area in the west to a steep area covered with plantation forestry in the east.

2.3.1 Zoning and Overlays

The general zoning and planning limitations that apply to the site under the AUP are set out in Table 2.1 below, and are shown on Figure 1 in Appendix A.

Table 2.1: Zoning and planning notations

Zoning / Overlay or other planning limitation	Comment
Rural Production Zone	The Rural Production Zone is the underlying zone of the whole precinct – this zone is intended to provide for the use and development of land for rural production activities and rural industries and services, while maintaining rural character and amenity values.
Significant Ecological Area Overlay (SEA)	Several SEAs are identified within the proposed precinct. SEA overlays protect areas of vegetation or areas of ecological value which have been identified as having particular characteristics and are afforded a higher level of protection by the AUP. Sub-Precinct A which is proposed for the placement of waste does not include any SEA overlays. The proposed rules do not enable works within any SEA, except for works

Zoning / Overlay or other planning limitation	Comment
	associated with the restoration or enhancement of that SEA.
Natural Stream Management Areas Overlay (NSMA)	A NSMA is identified within the precinct. Another NSMA is identified along the Hōteu River channel, which forms the western border of the precinct. This overlay applies to rivers and streams with high natural character and high ecological values. Sub-Precinct A which is proposed for the placement of waste does not include any NSMA overlays. The proposed rules would only enable a very small extent of works in one part of the NSMA (providing an activity status of discretionary rather than non-complying in proposed Sub-Precinct B), necessary to provide access to the site.
Outstanding Natural Landscapes Overlay (ONL) – Area 32 Dome Forest	This overlay is to the south of Sub-Precinct A and covers the Sunnybrook Reserve, with a small proportion of the ONL extending onto the proposed precinct (outside of sub-precinct A). The ONL overlay is intended to protect outstanding natural landscapes from inappropriate subdivision, use and development. The proposed rules do not enable any works within the ONL.
Emergency Management Area Control – New Zealand Refining Pipeline	The emergency management area control relates to the petroleum pipeline which crosses the western corner of the precinct and is intended to manage risk. The pipeline is also designated, and the protection afforded by the designation will remain in place irrespective of the PPC.
Designation ID 9101 – Taupaki to Topuni Gas Pipeline	
Designation ID 6500 – Petroleum Pipeline Rural section	

2.3.2 Topography and geology

The proposed precinct contains varying topography. In general, the western side is dominated by the relatively flat pastoral farmland of Springhill Farm, sloping gently and then more steeply up as it moves eastward away from the Hōteu River. The eastern side is characterised by ridges and a number of gullies which have been deeply incised by west-north-west draining watercourses that form tributaries of the Hōteu River or east draining to the Waiwhiu Stream.

The geology of the proposed precinct is described in detail in the Geotechnical Factual and Interpretive Reports prepared by Tonkin + Taylor (Technical Reports A and B⁴). The proposed precinct is predominantly underlain by Pakiri Formation bedrock consisting of interbedded sedimentary sandstone and siltstone with some conglomeritic layers. Some large historic landslide features have been identified as well as numerous active shallow landslips (within upper soil) within gully tributaries, appearing to coincide with spring lines. Northland Allochthon has been identified on the low rolling farmland in the western part of the precinct.

The regional tectonic setting is described in detail in the Probabilistic Seismic Hazard Report prepared by T+T (Technical Report C). The proposed precinct is located in a low seismic hazard area relative to other parts of New Zealand. There are no active faults present within 70 km of the proposed precinct according to the New Zealand Geotechnical Society (NZGS) Active Faults Database and no further faults have been detected through geotechnical investigation.

⁴ See Appendix B for a list of technical reports

2.3.3 Climate

Meteorological data indicates that proposed precinct’s location experiences some of the highest rainfall in the Auckland Region, receiving up to 2000 mm per year, compared with central Auckland which experiences 1200 mm per annum on average. The rainfall data also indicates the proposed precinct location receives rainfall of longer durations and greater peak intensities compared to other areas in the Auckland Region.

Winds in the local area are dominated by southerly and south-westerly winds, with a secondary prevalence of winds from the north-northeast (see Figure 2.2). This is broadly typical of prevailing conditions in the Auckland Region. A high resolution meteorological model has been developed to simulate the variability in winds across the proposed precinct location and wider area (Technical Report D).

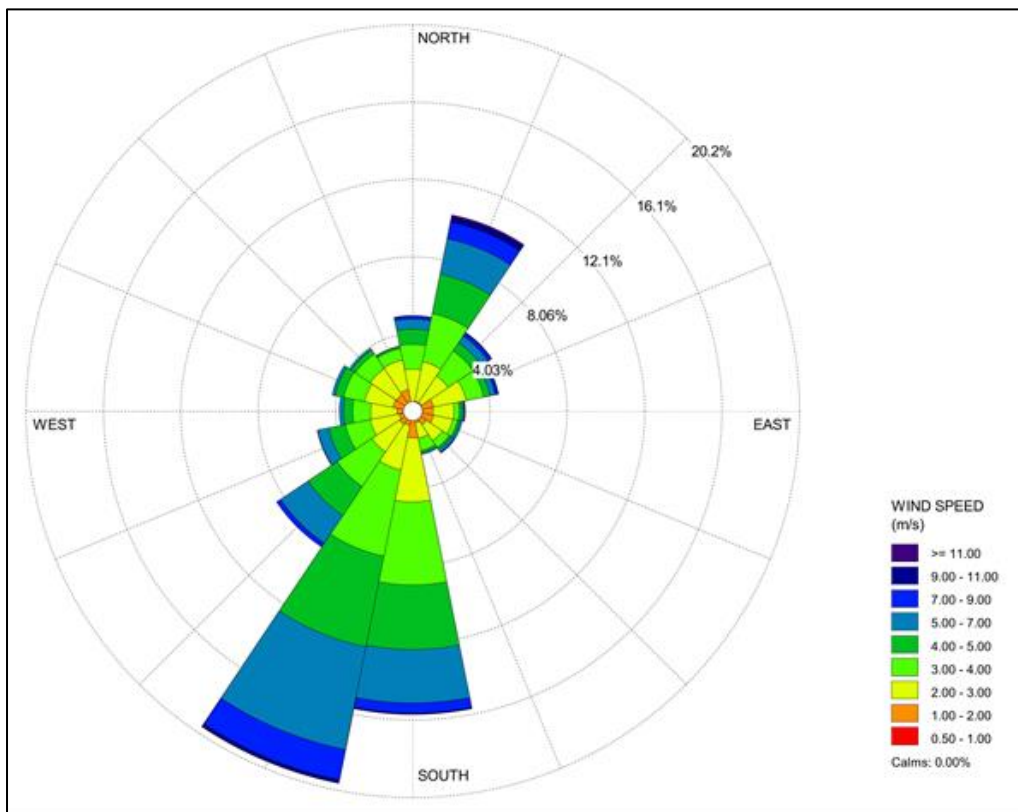


Figure 2.2: Wind rose for Mahurangi Forest Weather Station, 2014-2017 (one-hour average)

2.3.4 Groundwater

The hydrogeology of the Pakiri Formation is outlined below, and described in more detail within the Hydrogeological Assessment (Technical Report E). Within Sub-Precinct A three groundwater systems were identified, as outlined below in Table 2.2.

Table 2.2: Groundwater systems beneath the precinct

Groundwater system	General characteristics
Shallow perched	Found at the interface of the residual soil with the highly weathered Pakiri Formation. Contributes baseflow to streams.

Groundwater system	General characteristics
Upper Pakiri Formation	Found in the higher elevations of the Pakiri Formation around Sub-Precinct A. Horizontal flow along fracture zones and bedding planes, feeds seeps on the valley walls and springs near the floor.
Regional groundwater	Encountered at significant depth beneath Sub-Precinct A, separated from shallow groundwater by low permeability unweathered bed rock. Is estimated to have a gentle flow predominantly toward the Hōteō River. Flow could also occur to the south toward the Waiteraire Stream.

Groundwater within the proposed precinct is generally free from contamination and is akin to naturally occurring conditions. There are some metals (i.e. copper and zinc) present in the groundwater above relevant guidelines, however they appear to be naturally occurring.

2.3.5 Surface water

2.3.5.1 Surface water quality

Sampling of surface water quality throughout the proposed precinct location has been undertaken and is described in the Water Quality Baseline Monitoring Report (Technical Report F). Most water quality parameters are consistent with what would typically be expected from the current land uses (plantation forestry and sheep farming land uses). Ammoniacal nitrogen and pH appear to be reasonably stable over time. The streams within the proposed precinct location are generally small and clear running, with silty sediments overlaying hard beds. However, at times of increased rainfall the suspended solids level can rise rapidly as a result of the silt being stirred up from the stream bed and being washed down from the edges of the streams. Overall, water quality within the proposed precinct location is generally good compared to the relevant guidelines and comparable to similar streams in the area.

2.3.5.2 Streams and rivers

A detailed description of the surface water catchments within the proposed precinct location can be found within the Assessment of Aquatic and Terrestrial Ecological Values and Effects (Ecology Report) (Technical Report G).

The proposed precinct location contains a number of intermittent and permanent streams and tributaries including the Waiwhiu Stream and Waiteraire Stream. All watercourses within the proposed precinct location are tributaries of the Hōteō River which is described below.

The ecology of streams within the proposed precinct has been described in detail in the Water Quality Baseline Monitoring Report (Technical Report F) as well as the Ecology Report (Technical Report G). Freshwater systems across the proposed precinct location are generally considered to be of high ecological value. It is expected that during forestry activities the ecological values of streams within the forestry areas would decrease for a period of time until the stream systems recover.

In regard to freshwater fauna, the fish recorded at each fishing site generally reflect species recorded in nearby catchments except that no Cran's Bullies were found. Species recorded within the proposed precinct include longfin and shortfin eels, banded kōkapu, inanga, various bullies and kōura.

In regards to flooding in the wider area under existing conditions, while there is existing flooding within the Hōteō Catchment there are no known published effects on any dwellings within the catchment. Flooding does however restrict access to properties at times and can cause flooding of sections of State Highway 1.

2.3.5.3 Hōteō River

The main channel of the Hōteō River is adjacent to the western boundary of the proposed precinct with the river flowing in a southerly direction towards the Kaipara Harbour. A photograph showing a section of the Hōteō River is included as Figure 2.3 below.

The Hōteō River is identified as a Natural Stream Management Area (NSMA), Significant Ecological Area (SEA) and an Outstanding Natural Feature (ONF) in the AUP. The Hōteō is also a significant cultural taonga for mana whenua and is subject to a Statutory Acknowledgement provided under the Ngāti Manuhiri Claims Settlement Act 2012 (see below). The Hōteō River ultimately flows into the Kaipara Harbour approximately 30 km downstream of the proposed precinct location. The Hōteō River mouth is identified as a marine SEA in the AUP.



Figure 2.3: Hōteō River

2.3.5.4 Statutory acknowledgement of Ngāti Manuhiri with the Hōteō River

A statutory acknowledgement is an acknowledgement by the Crown that recognises the mana of a tangata whenua group in relation to specified areas. In particular statutory acknowledgements recognise the cultural, spiritual, historical and traditional associations with an area. Te Awa Hōteō (the Hōteō River) was an important traditional resource of Ngāti Manuhiri, and it remains a water body of major cultural, spiritual and historic significance to the iwi. It is subject to a statutory acknowledgement as part of the Ngāti Manuhiri Deed of Settlement with the Crown.

2.3.6 Terrestrial ecology

The terrestrial ecology of the proposed precinct has been described in detail in the Ecology Report (Technical Report G). A summary is provided below. Terrestrial ecology across the proposed precinct is broadly categorised into three habitat types:

- Exotic forest covers approximately 729 ha of the proposed precinct, predominately on the eastern side of the precinct;

- Pasture covers approximately 213 ha and dominates the western side of the precinct; and
- Native habitats cover approximately 135 ha of the proposed precinct and includes 11 distinct native habitat types. The terrestrial vegetation across the proposed precinct generally reflects the habitat types identified above. The native vegetation is in general considered to be of high ecological value with areas of significance including mature kahikatea and pukatea forest, taraire and tawa, podocarp forest and kauri, podocarp and broadleaved forest.

Two large wetlands within the Western Block are identified as SEAs under the AUP, referred to within this report as Wayby Wetland South (SEA_T_629) and Wayby Wetland North (SEA_T_6456). These two wetlands are also identified as Wetland Management Areas (WEA) 159 and 164 under the AUP. At the head of Wayby Wetland North is another SEA (SEA_T_6850), which is a 3.2 ha area of wetland dominated by wīwī, with headwaters consisting of kahikatea forest. This wetland has been degraded by stock access and pampas is present in low abundance.

A range of native fauna were identified during field surveys, including bats, birds, lizards, frogs and invertebrates. All but one of these (a Rhytid snail) are protected under the Wildlife Act 1953. Of particular note is the likely presence of two species classified as nationally threatened (long-tailed bat and the Australian bittern) and sizeable populations of three 'At Risk' species (fernbird, spotless crane and Hochstetter's frog).

Table 2.3: Fauna present or likely to be present within the precinct and wider area

Fauna	Description
Bats	The precinct offers potential suitable habitat for long-tailed bats (<i>Chalinolobus tuberculatus</i>), which are classified as nationally 'Threatened' (Nationally Critical), including 55 potential bat roost trees. Bat activity in the area was recorded as low to moderate, indicating that the area is typically used for movement across the landscape and feeding/foraging.
Birds	Bird species at the site are dominated by native and introduced species that are ubiquitous in agricultural landscapes or forestry landscapes. However, wetlands and native forest habitats also support the nationally 'Threatened' Australasian bittern and the 'At Risk' black shag, long-tailed cuckoo, NZ pipit, whitehead, fernbird and spotless crane. Within the wetland habitats within the proposed precinct a relatively high number of fernbird and spotless crane were recorded, however this is located outside Sub-Precinct A.
Lizards	Skinks, including the native copper skinks and some exotic plague species were recorded on the site. The native copper skink is classified as 'Not Threatened' but it is protected under the Wildlife Act 1953. The introduced plague skink is classified as 'Not Threatened' and is not protected under the Wildlife Act 1953. Up to four native 'At Risk' lizard species (Pacific gecko, Auckland green gecko, forest gecko and ornate skink) were not identified during field surveys, however they are likely to be present within the proposed precinct based on habitat suitability and known presence in the general area.

Fauna	Description
Hochstetter's Frogs	Hochstetter's frogs were found within hard-bottom stream cascade complexes across the proposed precinct. The cascade complexes that support Hochstetter's frogs constitute around 2 to 5 % of intermittent and permanent stream length, with very few frogs likely to be present in stream habitat types that are impacted by sediment and/or lack refugia. The sediment is attributed to historical land use activities associated with the clear felling of original native bush and subsequent forestry rotations. Hochstetter's frogs have also been found within indigenous and pine forest vegetation surrounding the proposed precinct and are common beyond the proposed precinct location on adjacent landholdings.
Invertebrate	Rhytid snails and peripatus were detected during fieldwork. These species are expected to be common and widespread across native and exotic forest habitats within the proposed precinct. Kauri snail also have a known presence in the area.
Introduced species	A number of introduced mammals and/or introduced mammal activities are present within the proposed precinct. These include possums, pig, and goat. Other likely mammalian predators within the proposed precinct include feral cats, rats and mustelids as would be expected in mainland New Zealand forested habitats not subject to pest control, as is currently the case within the proposed precinct area.

2.3.7 Landscape and natural character

The landscape and natural character of the proposed precinct is described in detail within the Landscape and Visual Assessment (Technical Report H), with a summary provided below.

In general the proposed precinct and surrounding area contains environments and habitats with varying levels of naturalness, including plantation forestry, indigenous forest, pasture, wetlands and waterways. The AUP identifies one Outstanding Natural Landscape (ONL), known as Dome Forest ONL (ONL ID: 32), which extends to a small extent over two areas of the proposed precinct. The extent of the Dome Forest ONL generally follows the south eastern edge of the proposed precinct, with a small area extending into the precinct (the ONL does not cover any of Sub-Precinct A). As noted earlier, the PPC request does not enable any works within the ONL.

To the south west of the proposed precinct, the incised meanders of the Hōteō River are the nearest Outstanding Natural Feature (ONF) identified within the AUP. This ONF (ONF ID: 49) is recognised for the deeply incised meanders of the river that flow through approximately 30 km of broken hill country to the south west of the site.

2.3.8 Existing land uses

The current land uses within the proposed precinct are generally categorised by the main habitat types identified in Section 2.3.6 above. This includes the working Springhill Farm within the Western Block, extensive plantation forestry operations within the Eastern Block and parts of the Waiteraire Tributary Block. Areas of native vegetation are also present, predominantly within the Southern Block.

Within the Springhill Farm area there are is an existing dwelling as well as existing farm utility buildings and sheds. There is also a working airstrip, with associated hangar buildings.

The plantation forestry area, which dominates the eastern side of the precinct, is part of a larger contiguous forestry area known as the "Dome Forest". The forestry within the precinct and in the surrounding plantation forestry is at a similar stage of harvest cycle. This includes 15 to 25 year old exotic pine forest that is within its third harvest cycle.

The previous owner of the land had obtained resource consent for 13 new lots on the farmland which comprises the western part of the precinct. Should WMNZ proceed to construct the landfill, this consent would be surrendered. Adjacent land uses

Areas to the northeast, east and south of the proposed precinct are dominated by plantation forestry, managed by Rayonier Matariki Forests (the Dome Forest). The topography of the area is undulating, with numerous steep ridges and valleys, and forestry tracks generally constructed along ridgelines.

To the west and north-west of the proposed precinct the topography flattens out, with rolling hills and land uses that are predominantly agricultural. Land use is largely dairy, beef and sheep farms, and lifestyle blocks. There are also a number of small businesses operating from properties in the surrounding area, such as Coles Chimney Specialists and Boutique Farmstay, both of which are accessed from Wayby Valley Road to the west of the proposed precinct.

Approximately 3.5 km northwest of the boundary of the proposed precinct is the town centre of Wellsford, with a population of approximately 2,100 residents. Wellsford is a rural service town to the surrounding area and is the northern-most township of the Auckland Region.

On the southern side of the Dome Forest is Warkworth. Warkworth is the largest rural town in the northern part of the Auckland Region and serves as a large rural catchment in the area. The population of the town is approximately 3,900 people. Warkworth serves as a gateway to many villages and beaches along the Matakana and Kōwhai Coasts. Warkworth is expected to grow significantly over the next 10-30 years, with around 1100 ha earmarked for future residential and business land development. Warkworth's population is anticipated to grow five-fold over the next three decades.

There are significant tracts of native bush within the wider area, including the Sunnybrook Scenic Reserve and the Dome Forest Stewardship Area. The Sunnybrook Scenic Reserve is located south of the proposed precinct, adjoining State Highway 1. We understand that this area does not have formed tracks and is not in regular recreational use, but can be accessed by goat hunters.

Within the south-eastern extent of the Dome Forest, Te Araroa Trail and Dome Forest Walkway are popular walking routes. These are located at least 3 km from Sub-Precinct A.

2.3.9 Cultural values

A number of iwi groups have mana whenua interests over the area of the site. These are identified on the Auckland Council Geomaps database as:

- Ngāti Manuhiri;
- Ngāti Whātua o Kaipara;
- Ngāti Rango
- Ngāti Wai;
- Ngāi Tai ki Tāmaki;
- Ngāti Maru;
- Ngāti Te Ata;
- Ngāti Whātua Ōrākei;
- Te Kawerau ā Maki; and
- Te Rūnanga o Ngāti Whātua.

Some of these iwi groups have a particularly strong interest in the area. In addition, the Hōteio is subject to a Statutory Acknowledgement provided under the Ngāti Manuhiri Claims Settlement Act 2012 as discussed in Section 2.3.5.3. Ngāti Rango and Ngāti Whatua also have a significant interest in

the area due to the proximity of their marae and their long association with the area and the Kaipara Harbour.

Ngāti Manuhiri have prepared a Cultural Values Assessment which has been provided to WMNZ, identifying the cultural significance of the area to their iwi group. Ngāti Manuhiri have a strong ancestral association with the area, with much of the rohe occupied and utilised by Ngāti Manuhiri for generations, including in particular areas rich in resources found in and around waters and on land. The rohe contains the maunga tapu (sacred mountains) of Tohitohi ō Reipae (the Dome), Pukemōmore (Conical Peak), Kikitangieo, Pae Kauri, and Maunga Tamahunga.

There are no sites of significance listed on publicly available databases within the proposed precinct.

2.3.10 Archaeology

An Archaeology Assessment has been undertaken by Maatai Taonga Ltd, provided in Technical Report K. This assessment has concluded that it is unlikely that the area was subject to Māori occupation as the soil of the area is not suitable for cultivation. There is also no evidence of surface traces of any Māori occupation. Furthermore, there are no recorded archaeological sites within the proposed precinct location. The land was subject to subdivisions by the Crown in the second half of the 19th century, however it is likely that this was never settled. One cottage on Springhill Farm may have been occupied pre 1900, and so potentially has archaeological value⁵. No works are proposed in the vicinity of the cottage. The report recommends further consultation with mana whenua. A summary of the consultation undertaken to date is included in Section 3.2.1.

2.3.11 Roding network

The roding network surrounding the proposed precinct is described in the Integrated Traffic Assessment (Technical Report M). Within the proposed precinct there are a number of private roads that are predominantly used for the forestry operation. There are also a number of unformed legal roads across the precinct, some of which coincide in part with the formed private roads. WMNZ is undertaking a road stopping process to close some of the paper roads which cross through Sub-Precinct A, but will retain some public access via unformed legal roads and private roads through the landholdings.

State Highway 1 adjoins the proposed precinct to the south west and is the key national transport route between Auckland and Whangarei. This highway passes through the Dome Valley between the townships of Warkworth and Wellsford. Within the Dome Valley it is a two-way, two-lane road with two northbound and one southbound passing lane opportunities between Warkworth and Wellsford. The speed limit has been reduced here to 80 km/h due to a disproportionately high number of crashes that occur in the area. NZTA is currently undertaking safety improvements on a 15km stretch of State Highway 1 through the Dome Valley, to address known safety issues. This work is scheduled for completion prior to the proposed landfill operation.

NZTA currently has a proposal to realign State Highway 1 between Warkworth to Wellsford, which is the second stage of Ara Tūhono Pūhoi to Wellsford project. This project is likely to ultimately extend to Te Hana. Stage one, between Pūhoi and Warkworth, is currently under construction, with an estimated completion date of late 2021. The indicative alignment of the Warkworth to Wellsford section shows the route cutting across the south-western corner of the proposed precinct. It is understood that NZTA is looking to lodge the Notice of Requirement (NoR) in 2020 in order to secure route protection. However, there is currently no predicted commencement date for the construction works.

⁵ An archaeological site is defined by Heritage New Zealand Pouhere Taonga as a site where human activity occurred before 1900

3 Proposed plan change

3.1 Overview of the proposed plan change

This PPC seeks to introduce a new precinct into the AUP – the Auckland Regional Landfill Precinct. The precinct will identify the precinct in the planning maps, and will introduce new provisions, specific to the precinct. The proposed precinct, including provisions and the maps, is attached as Appendix A.

Future applications under the precinct provisions would be subject to the normal assessment process under s104 of the RMA. The proposed plan change does not permit the establishment and operation of a landfill - it requires assessment as a discretionary activity. Therefore, effects are assessed through that avenue, allowing Council to consider the full range of relevant matters.

The *current* resource consent application that is lodged with Council will not be assessed under the precinct provisions requested through this private plan change request. The resource consent application will be assessed under the existing provisions of the Auckland Unitary Plan.

3.1.1 Precinct layout

The proposed precinct covers the entire WMNZ landholdings in the Wayby Valley. Two sub-precincts are proposed: Sub-precinct A, which identifies the area where waste will be placed within the landfill; and Sub-precinct B, which identifies an area where works in the NSMA are classified as discretionary rather than non-complying. Parts of the remaining land within the Precinct will be used for a range of activities associated with the landfill operations and energy generation, such as a bin exchange area, stormwater treatment devices, access roads, soil stockpiles, gas and leachate collection and treatment, and clay borrow.

3.1.2 Objectives and policies

The proposed precinct includes 6 objectives and 6 policies. The objectives and policies are intended to enable establishment and operation of a landfill within the precinct, whilst requiring effects to be appropriately managed to the extent practicable. The objectives and policies, which are both regional plan and district plan provisions, give effect to provisions of the RPS component of the AUP.

3.1.3 Activity table

In summary, the activity table makes landfill activities discretionary, rather than non-complying within the precinct. The proposed precinct has intentionally retained a discretionary status for new landfills to allow for a full assessment of any future application, rather than attempting to limit Council's discretion. However, a discretionary status is more appropriate for infrastructure and is more consistent with the treatment of other infrastructure activities in the Auckland Unitary Plan. A review of rules for other infrastructure activities found that the activity statuses are generally more supportive of infrastructure development, compared to the existing non-complying activity status for landfills.

Works within the NSMA in Sub-precinct B would be discretionary, whereas works in an NSMA outside of Sub-precinct B would remain non-complying.

Discharges from an existing, legally authorised landfill (i.e. re-consenting the ongoing operation of activities within the precinct) are proposed to be a restricted discretionary activity.

Many activities, such as stormwater, industrial and trade activities, discharges from closed landfills, and earthworks, will continue to be regulated by the Auckland-wide provisions in the AUP, rather than by the precinct provisions. The AUP contains an existing definition for the term 'landfill' which

applies to the precinct - *“Landfill Facility where household, commercial, municipal, industrial and hazardous, or industrial waste is accepted for disposal”*.

3.1.3.1 Landfill closure and aftercare

Chapter E13 already contains rules, standards, matters of discretion and assessment criteria for closed landfills during the aftercare period. It was not considered necessary to duplicate these controls within the precinct, consistent with Auckland Council’s best practice guide for precincts. In addition, a site aftercare plan has been included as a matter of discretion for re-consenting of existing landfills if the landfill is to close within the term of the consent.

3.1.4 Notification

The proposed precinct requires mandatory public notification of applications for construction, and operation of landfills, discharges to air from new landfills and any landfill activity which doesn’t comply with the standards in the precinct. Whilst from a planning perspective it is reasonable to consider that these activities would be subject to the normal tests for notification, WMNZ has offered to provide for mandatory public notification for the listed activities, to provide opportunities for stakeholders to be involved in the process. All other activities (if not part of a bundled application with the activities which trigger mandatory notification) would be subject to the normal notification assessment under the RMA.

3.1.5 Standards

The precinct includes standards for restricted discretionary and discretionary activities. These standards limit the placement of waste to Sub-precinct A, require installation of an appropriate lining system, require no offensive or objectionable odour at the Precinct boundary, and restrict works within identified SEAs, WMAs and NSMAs, and limits the maximum airspace volume of the landfill. The only difference between the restricted discretionary and discretionary standards is whether the activity is associated with an existing, legally authorised landfill. Activities which do not comply with the standards will be non-complying. This is considered appropriate for activities that do not meet the key design standards, requiring a full assessment of potential effects and a higher degree of scrutiny if a proposal departs from the accepted industry standards. Likewise, works within SEAs, WMAs, ONLs and in any areas of the NSMAs other than that small area identified, will remain classified as a non-complying activity, thereby being subject to the most stringent assessment process under the RMA.

3.1.6 Assessment criteria and matters of discretion

Matters of discretion are not included in the AUP for discretionary and non-complying activities, and consequently none are proposed for activities within the precinct which would carry these activity statuses. The Auckland Council Best Practice Guide for Precincts (2018) does not provide for assessment criteria to be imposed on discretionary and non-complying activities.

Assessment criteria and matters of discretion have been included for the proposed restricted discretionary activities. These are broadly consistent with the assessment criteria and matters of discretion for other discharges in the AUP and generally targeted to the nature of the discharges, the actual or potential effects, alternative discharge methods, and options to avoid remedy and mitigate effects.

The only restricted discretionary activities provided for in the proposed precinct relate to discharges which have already been through a consent process and are seeking to renew, which is why the assessment criteria are limited to effects of discharges. However, site management plans are included in the restricted discretionary assessment criteria, including measures to control vermin and birds. Purpose and reasons for plan change

Clause 22(1), Schedule 1 of the RMA requires that a plan change request explains the purpose of and reasons for the proposed plan change. The purpose of the PPC is to establish a precinct on the site. The reasons for the request are summarised as follows (and expanded on below):

- To appropriately recognise landfills as infrastructure within the AUP, by identifying a site within Auckland that has been assessed as being suitable for a new landfill, and describing this site through the use of a precinct and managing future effects of activities within the precinct through bespoke objectives, policies and rules;
- In anticipation of a landfill being established at the site, providing recognition of the site in the planning framework for the Auckland Region, consistent with the treatment of other large scale infrastructure in the region, and to manage potential future reverse sensitivity effects;
- To enable efficient operation of a future landfill at the site throughout its operating life, by targeting future re-consenting requirements to the nature of the discharge and measures to avoid, remedy or mitigate effects.

3.1.7 Purpose - Landfill precinct

The purpose of the PPC is to establish a precinct on the site, which provides a supportive framework for the construction and operation of a regional landfill on the site.

3.1.8 Reason - Recognising and providing for landfills as infrastructure

Municipal landfills are a vital piece of regional infrastructure. They provide a final point of disposal for residual wastes which cannot be reduced, reused or recycled. Waste is generated by residential households, commercial and industrial activities, businesses and construction activity. The functioning and growth of Auckland cannot be supported if there is no infrastructure in place to deal with waste generated.

Landfills provide an important component of the overall waste management system in New Zealand and on a regional basis are critical to the functioning of the region.

Importantly, the role of landfills as infrastructure has been recognised in the definitions of the AUP. This inclusion means that the objectives and policies throughout the AUP that support the establishment and operation of infrastructure apply to the development and operation of a large scale landfill, such as that envisaged within the precinct for the Wayby Valley as described by this PPC.

However, by classifying any new landfills as non-complying, the current version of the AUP is inconsistent with this recognition as infrastructure because that classification suggests that it is an activity that is not envisaged or supported by the AUP. Non-complying activities are usually unlikely to find direct support from any specific provisions of a regional or district plan, whereas a discretionary activity might find support. It seems at odds on the one hand to consider infrastructure to be of vital importance to the region and provide supporting and enabling provisions to address this yet at the same time impose a non-complying activity status on infrastructure which suggests that it is not supported.

The PPC will address this inconsistency in the AUP through providing for a landfill within sub-precinct A, and through the provision of objectives, policies and rules addressing the potential adverse effects in this location. The assessments undertaken to date, which support the appropriateness of the precinct for a landfill, have been extensive.

In summary, the PPC will appropriately provide for this landfill as essential regional infrastructure for Auckland in a location that is considered to be appropriate for that activity.

3.1.9 Reason - Recognition of the site in the planning maps

Resource consent is currently being sought to establish and operate a landfill in the proposed precinct location. There is currently no available mechanism in the AUP planning maps to record the presence of the landfill should resource consents be obtained. Other large infrastructure facilities within the region are recognised on the AUP planning maps by a combination of designations and precincts (e.g. port precinct, airport precincts). This helps to manage reverse sensitivity effects as well as being transparent to the community about the activity's location and presence.

Landfills can be subject to reverse sensitivity effects as the surrounding land is developed, with the potential subsequent development of sensitive activities in close proximity to the legally established landfill, resulting in increased complaints and operational challenges or restrictions for the landfill. The proposed precinct if adopted, would signal to the community that the site has been determined as an appropriate place for the development of a landfill, subject to consents being obtained. If developed, the Auckland Regional Landfill is likely to be operating for at least 35 years, and the waste will remain on site permanently. Within this time period, the surrounding land uses will have changed significantly. The precinct would be identified on the planning maps of the AUP, and subsequent planning documents, which would provide a permanent record and reminder of the landfill's presence, recognising the distinct set of characteristics this site has in the Auckland Region, and enabling informed decisions on land use in the surrounding area well into the future.

3.1.10 Reason - Enabling the ongoing efficient operation of the landfill

Should consent be granted for establishment of a landfill on the site within the proposed precinct location, the landfill will be a long term operation, in excess of 35 years. Therefore providing security in the plan through the adoption of a precinct, is important for the on-going operation and protection of the infrastructure asset. There will be the need to re-consent discharges from the landfill activity during the life of the landfill, because such consents can only be granted for a maximum term of 35 years. Adopting a precinct for the site, together with associated objectives and policies, enables the process of any consent renewals to be undertaken under the broader AUP provisions as well as the more supportive and enabling precinct provisions. The proposed precinct provisions (matters of discretion and assessment criteria) propose to limit the matters considered at the time of re-consenting discharges to those relevant to the discharge, including the nature of the discharge and measures to avoid, remedy or mitigate effects. This will enable efficient ongoing operation of the landfill, ensuring future consenting processes are appropriately targeted to the relevant effects.

3.2 Consultation

In preparing the resource consent application and PPC, WMNZ has consulted with mana whenua and a range of stakeholders and interest groups on the proposed use of the site, including landowners, utility operators and other interest groups. This has included:

- Owners and occupiers of surrounding properties
- Iwi groups – see also 3.3.1 below
- Local community groups and clubs
- The wider public (including through 4 public open days)
- Auckland Council (both governance and regulatory)
- New Zealand Transport Agency
- KiwiRail
- Auckland Transport
- Vector

- Watercare
- Auckland Regional Public Health Board
- First Gas
- NZ Refining
- Department of Conservation
- Walking Access Commission

Consultation and engagement with stakeholders commenced following approval from the Overseas Investment Office (OIO) to acquire the land, withheld until that time due to confidentiality agreements associated with the land sale prior to the OIO approval. Once OIO approval was confirmed, WMNZ met stakeholders in person wherever possible and held four public open days which attracted a range of interested people. A webpage has also been set up for the project with information and a number of frequently asked questions (FAQs).

Most of the consultation to date has focused on the design included in the resource consent application and potential environmental effects, as that includes more specifics about the proposed activities to occur on the site, whereas the PPC is more of a technical and policy change to the planning framework. However, consultation has considered potential effects and the long term use of the site, which are relevant to the PPC. Consultation and engagement will continue throughout the PPC and consenting process, and during construction and operation phases of the project.

A log of all consultation undertaken to date is contained in Appendix G of this PPC request.

3.2.1 Iwi and hapu

Clause 4A of s 32 of the RMA requires the evaluation report for a proposed plan change to:

- summarise all advice concerning the proposal received from iwi authorities under the relevant provisions of Schedule 1
- summarise the response to the advice, including any provisions of the proposal that are intended to give effect to the advice

In particular, Clause 26A of Schedule 1 requires that the local authority comply with any Mana Whakahono a Rohe that specifically provides a role for iwi authorities in relation to any plan change. There is no relevant Mana Whakahono a Rohe, and consequently this clause does not apply.

This section summarises the consultation which has occurred with iwi and hapu, whilst the response to the matters identified by iwi is included in Section 4.11.

A number of iwi groups have mana whenua interests over the area of the precinct. These are identified on the Auckland Council Geomaps database as:

- Ngāti Manuhiri;
- Ngāti Whātua o Kaipara;
- Ngāti Wai;
- Ngāi Tai ki Tāmaki;
- Ngāti Maru;
- Ngāti Te Ata;
- Ngāti Whātua Ōrākei;
- Te Kawerau ā Maki; and
- Te Rūnanga o Ngāti Whātua;

Some of these iwi groups have a particularly strong interest in the area. In particular, Ngāti Manuhiri, due to the project's proximity to the Hōteō River, which is subject to a statutory acknowledgement in favour of Ngāti Manuhiri. Ngāti Rango and Ngāti Whatua also have a significant interest in the area due to the proximity of their marae to the Hōteō River and their long association with the area and the Kaipara Harbour.

On 14 June 2018 these groups were notified via a letter and email of WMNZ's consideration for a large site development north of Auckland in an area that would be of interest to them. The letters advised that the block of land was within the Hōteō River catchment and that WMNZ would phone them as soon as the OIO provided approval for the land acquisition.

After receiving OIO approval on 11 September 2018, WMNZ contacted Ngāti Manuhiri, Ngāti Rango and Ngāti Whatua on 19 September 2018 via telephone and followed this up with written confirmation that WMNZ had received OIO approval to acquire land in the Wayby Valley area. They were advised that the project was a proposal to develop and operate a landfill for the Auckland Region and that WMNZ would like to arrange a time to discuss the proposal in further detail. Subsequently initial meetings have occurred to discuss the proposal.

3.2.1.1 Ngāti Manuhiri

The site is located within the rohe of Ngāti Manuhiri. The rohe of Ngāti Manuhiri encompasses Bream Tail/Mangawhai to the north and extends south to the Okura river mouth south of Whangaparāoa. The easterly boundary takes in the islands of Little Barrier, Kawau, Tiritiri Matangi, Panetiki, the Mokohinau islands and Great Barrier. The western boundary starts in the North at Patumakariri, Kaipara, Moturemu, Arapareira, Makarau through to Oteha / Takapuna. The rohe of Ngāti Manuhiri is identified in the Auckland Council Geomaps database. Te Awa Hōteō (the Hōteō River) was an important traditional resource of Ngāti Manuhiri, and it remains a water body of major cultural, spiritual and historic significance to the iwi. It is subject to a statutory acknowledgement as part of the Ngāti Manuhiri Deed of Settlement with the Crown dated 21 May 2011.

Working with Ngāti Manuhiri is a key element of the wider project, and WMNZ are working to build a partnership with Ngāti Manuhiri. Engagement to date has been positive and constructive, allowing WMNZ to understand the values of Ngāti Manuhiri and also for Ngāti Manuhiri to gain an understanding of the project and participate in its development. Engagement will continue throughout the life of the project.

Following the initial contact on 14 June 2018 to inform Ngāti Manuhiri of WMNZ's interest in developing in the area, WMNZ rang Ngāti Manuhiri on 19 September 2018 to advise of the location of the proposed landfill and to confirm WMNZ's interest in working with iwi.

WMNZ met with Ngāti Manuhiri at WMNZ's head office on 12 October 2018 following their request for a separate meeting. WMNZ presented details of the proposal including the need for a landfill, location, key features of the landfill, and how a modern landfill and energy park operates. It was established that a further meeting would be held at their discretion to present the proposal in further detail to the Ngāti Manuhiri Settlement Trust.

On 4 December 2018, WMNZ met with the Chair of the Ngāti Manuhiri Settlement Trust. WMNZ explained the proposal in an overview form. Ngāti Manuhiri expressed desire for a long term relationship to be established and agreed to assist with a Cultural Values Assessment (CVA). WMNZ proposed a site visit to both Redvale Landfill and Energy Park and Kate Valley.

On 17 January 2019, WMNZ met with the Ngāti Manuhiri Settlement Trust in their Warkworth Offices. This gave WMNZ a further opportunity to explain the proposal to Trustees and staff and to hear and discuss initial questions in relation to the source of waste, water quality, environmental

health, ecology and proposed mitigation. Ngāti Manuhiri explained the cultural sensitivity of the area and the significance to them of the Hōteao River.

On 30 January 2019, WMNZ met with an environmental representative of Ngāti Manuhiri to further describe the project and initiate the preparation of the CVA. This was followed up with a Wayby site visit on 14 February 2018. Draft copies of the Archaeology and Ecology survey and findings reports were provided.

On 11 March 2019, WMNZ hosted an environmental representative of Ngāti Manuhiri at Redvale landfill. Technical experts engaged on this project by WMNZ presented their specialist areas to Ngāti Manuhiri and answered questions on the proposal. A CVA report was subsequently provided by Ngāti Manuhiri to WMNZ.

On 11 April 2019, the Chair of Beijing Capital Group NZ Investment Holding Limited together with the WMNZ Managing Director and members of the Executive Management Team met with Ngāti Manuhiri Settlement Trust Chairman, Trustees and Management on the proposed landfill site to further develop and confirm the relationship at the appropriate level.

On 17 May 2019, WMNZ General Manager and members of the Operational and Technical Services Team hosted the Ngāti Manuhiri Chairman, CEO and Kaitiaki Manager at Redvale Landfill and Energy Park. The visit was aimed at explaining and seeing a modern landfill development and operation very similar to that proposed for the ARL.

On 10 June 2019, a copy of the AEE and resource consent application lodged with Auckland Council was shared with the Ngāti Manuhiri Kaitiaki Manager for the purposes of ongoing consultation, specifically in relation to the matters raised in the CVA, to identify what other concerns exist that were not captured by the CVA, and to understand whether any refinements to the project or the proposed conditions of consent might be required.

On 9 July 2019, WMNZ and their planners from Tonkin & Taylor met with the Ngāti Manuhiri Kaitiaki Manager to discuss the proposed PPC. The provisions of the PPC were discussed. The Ngāti Manuhiri Kaitiaki Manager requested further information on the life of the lining system and leachate generation in landfills, as well as expressing an interest in further discussing and refining the objectives and policies of the PPC through the PPC process.

On 5 August 2019, a copy of a mail-out sent the previous week to all stakeholders who had registered their interest with WMNZ was also sent direct to Ngāti Manuhiri to advise them that WMNZ had lodged an application for a Private Plan Change and to invite them to call if they wanted clarification.

On 5 September 2019, Ngāti Manuhiri's new kaitiaki representative was hosted by WMNZ for a visit to the ARL site.

From 8 October 2019 to 14 January 2020, contact was made on eight occasions to discuss ecology, CVA and the proposed mitigation.

On 20 February 2020, Ngāti Manuhiri met with the MD of WMNZ to discuss the scope of the mitigation package, relationships with iwi groups, and progress towards an agreement for iwi involvement in the proposed project.

3.2.1.2 Ngāti Whātua o Kaipara

The site is located within the rohe of Ngāti Whātua. The area runs from the Tāmaki River in the South to Maunganui Bluff on the West Coast in the North and to Whangarei Harbour on the East Coast. Ngāti Whātua o Kaipara (NWoK) is a legal umbrella for five hapu or marae including Puatahi

marae (Ngāti Rango) which is at the estuary of the Hōteu River. NWoK regard Te Uri O Hau (TUoH) as their whanau, but TUoH are not included in the NWoK treaty settlement. NWoK acknowledged that it was also appropriate for WMNZ to also talk to Ngāti Rango directly.

Nga Maunga Whakahii o Kaipara Development Trust and NWoK are grouped together for the purposes of this summary since correspondence and meetings have largely been combined.

On 22 March 2019 WMNZ met with representatives from Nga Maunga Whakahii o Kaipara Development Trust which is the legal entity for administering the Ngāti Whātua o Kaipara Claims Settlement Act 2013. WMNZ explained the proposal in an overview form. NWoK were most interested in the potential effects of sedimentation in the Kaipara Harbour and contaminants leaking into waterways. A link to the brochure on WMNZ's website was provided.

On 4 April 2019 WMNZ hosted a visit by NWoK the Redvale Landfill to explain the project in more detail and to relate it to an existing landfill operation. The next step was to arrange a visit to the site (proposed precinct) and this took place on 16 July 2019 during which the Private Plan Change proposal was explained.

On 5 August 2019, a copy of a mail-out sent to all stakeholders who had registered their interest with WMNZ was also sent direct to NWoK to advise them that WMNZ had lodged an application for a Private Plan Change.

On 25 November 2019, a copy of Technical Report G (Aquatic and Terrestrial Ecological Values and Effects report) was sent to NWoK.

NWoK have been sent the same notifications that were sent to all the other iwi groups on 12/11/18 and 5/8/19 as are described in the following sections. In response to the first notification, on 14 November 2018 WMNZ received an email from Ngā Maunga Whakahii o Kaipara Development Trust (Ngāti Whātua o Kaipara). This email expressed that as the legal entity that governs the operations and management of Ngāti Whātua o Kaipara, and as the site is a significant area within their settlement rohe, they request a hui to address the proposal. Their preference was for a joint hui with Ngāti Manuhiri and Te Uri o Hau, although this request was superseded to some extent by a hui called by Ngāti Rango at Helensville on 23 March 2019, by Te Runanga at Whangarei on 28 January 2020, and meetings between NWoK and WMNZ, although the door always remains open for other hui to be held.

3.2.1.3 Ngāti Rango

WMNZ were advised in May 2019 that the group wishes to be referred to as Ngāti Rango.

Following up on direct contact in June and September 2018, WMNZ met representatives of Ngāti Rango at Redvale Landfill on 01 March 2019. WMNZ presented the project proposal and there was some general discussion around the disposal of Auckland's waste.

Ngāti Rango were proposing two public hui and advised that invited guests would include Nga Maunga Whakahii, Te Uri o Hau, Ngāti Manuhiri and WMNZ.

WMNZ were subsequently invited to a tribal hui by Ngāti Rango/Rongo of Ngāti Whātua on 23 March 2019. At that hui, WMNZ were offered an opportunity to discuss the need for a landfill, historical learnings from landfill practices, alternatives to landfills and the importance of high quality environmental protection. WMNZ heard concerns mainly focused around potential adverse effects on the extensive stream and river system and aquifer and the Hōteu River which flows to the Kaipara harbour.

On 18 May 2019 WMNZ hosted Ngāti Rango for a visit by more of their members to Redvale Landfill and WMNZ gave a supplementary presentation on the proposed landfill. WMNZ engaged in discussion on the need for landfill, the site selection criteria, and the measures to protect the

environment. Ngāti Rango remain particularly concerned about the long term legacy that remains when the landfilling is finished.

On 30 July 2019, representatives of Ngati Rango visited Redvale Landfill where WMNZ explained the PPC process and presented the Precinct plan as part of those discussions.

On 5 August 2019, a copy of a mail-out sent to all stakeholders who had registered their interest with WMNZ was also sent direct to Ngāti Rango to advise them that WMNZ had lodged an application for a Private Plan Change.

On 20 September 2019, a wānanga between Ngati Rango and WMNZ was hosted by Ngati Rango during which both parties shared their views and were presented facts about the proposed project. The occasion was followed on 21 September by a visit to the ARL site and a visit to Redvale to see an operating landfill.

On 25 October 2019, a copy of Technical Report G (Aquatic and Terrestrial Ecological Values and Effects report) was sent to Ngati Rango. The message went on to explain the WMNZ was in the process of responding to a request for more information under RMA Schedule 1 Clause 23.

On 28 January 2020, Ngati Rango attended a hui hosted by Te Runanga o Ngāti Whātua as described below.

On 19 February 2020, Ngati Rango visited WMNZ at Redvale to present their Nga Taonga Tuku Iho booklet to WMNZ's MD. The taonga expressed Ngati Rango's understanding of their role in kaitiakitanga with specific reference to the proposed landfill project as a whole, and made reference to the 'application' and the 'consent' in those general terms rather than the particular PPC process.

3.2.1.4 Te Runanga o Ngāti Whātua

In addition to contact made with various groups within Ngāti Whātua (TUoH, NWoK, Ngāti Rango, Ngāti Whātua Orakei), WMNZ has also made contact with Te Runanga o Ngāti Whātua. They were sent the same notifications that were sent to all the other iwi groups that were identified on the Auckland Council website, including 12/11/18 (notification of OIO approval), 5/8/19 (Private Plan Change application lodged).

On 2 April 2019, WMNZ were approached by Te Runanga o Ngāti Whatua requesting further consultation. WMNZ made phone contact on 5 April 2019 and received confirmation from their Chief Executive that Te Runanga o Ngāti Whatua had authority to speak on behalf of all Ngāti Whatua between Auckland and Whangarei. Their concerns were confirmed as being mainly sediment in the Hōteu River, potential leakage from landfill liners and potential impact on the Kaipara moana.

On 24 June 2019, WMNZ presented the project description to TRoNW including the private plan change aspect.

On 11 July 2019, TRoNW visited the ARL site and the Redvale Landfill site. Further details of the project and consent process were discussed.

On 25 October 2019, a copy of Technical Report G on Ecology was sent to TRoNW. The message went on to explain the WMNZ was in the process of responding to a request for more information under RMA Schedule 1 Clause 23.

On 28 January 2020, after discussion agenda, Te Runanga o Ngāti Whatua held a hui to listen to presentations on the project by WMNZ and to listen to a proposal by others for an alternative technology. They raised concerns around freshwater quality, effects on the Kaipara Harbour, climate change, the very long term prospects for containment of the waste, and what the site will finally look like. WMNZ answered questions and explained the PPC part of WMNZ's proposal.

3.2.1.5 Te Uri o Hau

Te Uri o Hau (TUoH) are at the northern part of the Kaipara catchment.

They were sent the same notifications that were sent to all the other iwi groups that were identified on the Auckland Council website, including 12/11/18 (notification of OIO approval), 5/8/19 (Private Plan Change application lodged).

On 25 May 2019, the kaitiaki advisers to TUoH, Environs, visited Redvale and were briefed on the project.

On 28 January 2020, TUoH attended the hui hosted by Te Runanga o Ngāti Whatua at which the PPC was explained by WMNZ. TUoH subsequently indicated that an iwi-wide CVA from Te Runanga would address the issues considered by TUoH.

3.2.1.6 Other iwi and hapu groups

WMNZ sent a letter and email to all the iwi groups listed below on 12 November 2018 to notify them of the OIO approval to acquire land for a landfill, and on 5/8/19 to notify them of the PPC lodgement.

These iwi groups have identified that they have an interest in the area of the project site either according to the Auckland Council website or according to feedback received by WMNZ. The iwi and hapu contacted were:

- Ngāti Whātua o Kaipara;
- Ngāti Wai;
- Ngai Tai ki Tamaki;
- Ngāti Maru;
- Ngāti Te Ata;
- Ngāti Whātua Orakei;
- Te Kawerau a Maki;
- Te Runanga o Ngāti Whatua;
- Te Uri o Hau;
- Ngāti Whanaunga;
- Ngāti Maunga Whakahii o Kaipara;
- Ngāti Manuhuri;
- Ngāti Rango;
- Te Roroa (5/8/19 only).

On 1 April 2019, WMNZ received a phone call from a legal representative of Kaipara Moana Negotiations Reference Group comprising:

- Te Roroa
- Ngāti Whatua o Kaipara (including Nga Maunga Whakahii o Kaipara)
- Ngāti Whatua o Orakei
- Te Uri o Hau
- Te Runanga o Ngāti Whatua

They were given copies of correspondence between WMNZ and their members.

On 4 April 2019, WMNZ also made contact with Ngāti Whatua Orakei, referencing earlier correspondence. Through this communication WMNZ received confirmation that Ngā Maunga Whakahii o Kaipara were the official mandated iwi in the South Kaipara region for Ngāti Whātua and the discussion confirmed the need to include Te Uri o Hau and Te Rūnanga o Ngāti Whātua in engagements to ensure the interests of the mandated bodies of Ngāti Whātua are heard.

It is understood that Te Uri o Hau, Te Rūnanga o Ngāti Whātua and the separate Kaipara Harbour Integrated Mangement Group (KHIMG) have a number of members in common, and WMNZ have indicated WMNZ's willingness to meet them in any combination they choose. All of these parties have met with WMNZ and visited Redvale Landfill.

3.2.2 Summary of feedback received

Over the course of the pre-lodgement period, WMNZ has proactively engaged in public consultation with a strategy aimed at reaching all potentially interested parties and giving them opportunities to obtain information about the proposed landfill and related issues.

As a result, WMNZ has received feedback from stakeholders covering a diverse range of topics. Some key themes repeatedly arose. Many of these themes related to matters associated with the design or operation of the proposed landfill, and as such these are responded to in the consent application documents rather than as part of this PPC request. However, common themes raised relating to the role of landfills and the suitability of the site are summarised in the table below (Table 3.1) with a reference to the response made in the PPC to the matters raised, including reference to the relevant supporting information in the request for each topic. A log of all consultation undertaken to date is contained in Appendix G.

Table 3.1: Summary of feedback received

Key theme		Raised by	Summary of feedback received	Summary response
The role of landfills	The location	Public open day attendees	<ul style="list-style-type: none"> Why should Rodney be the dumping ground for all the waste from urban Auckland? Have alternative sites been considered? 	<p>Section 2 of the AEE and Appendix D summarise the site selection process that WMNZ has gone through to identify the proposed project site. A number of alternative sites were considered prior to selecting this site.</p> <p>The proposed landfill will replace Redvale Landfill, which is also located in Rodney, northern Auckland. The location is important to avoid needing to truck waste out of Auckland or increased trucking distances across Auckland to the south.</p>
	The need for a landfill and alternatives to landfilling including new technologies (eg. incineration)	Public open day attendees	<ul style="list-style-type: none"> Question as to whether alternative technologies have been considered. Landfills perceived as old technology. 	<p>A discussion of the need for landfill capacity in the Auckland Region and alternatives to landfill is contained in Section 1 of this AEE.</p> <p>Like Australia and the US, landfills have been the preferred method for waste disposal in New Zealand.</p> <p>Incineration is better suited to larger, more densely populated areas in Europe, who generate the large volumes of waste in concentrated towns and cities significantly larger than Auckland that are required to continuously feed an incinerator.</p> <p>These same towns and cities are reliant on the electricity generated from the incinerator whereas NZ already has significant sustainable renewable electricity generation.</p> <p>Incinerators also still have a waste stream (ash), which is generally taken to landfill.</p> <p>Waste incineration has a long-term need for a continuous waste feedstock, which goes against the aspirations we have here in New Zealand for zero waste.</p>

Key theme		Raised by	Summary of feedback received	Summary response
Suitability of the site for a landfill	Flooding	Neighbours to the north west, public open day attendees	<ul style="list-style-type: none"> Area receives very high rainfall and flooding. A number of residents commented on a perceived correlation between timing of flooding and high tide in the Kaipara Harbour. 	<p>Potential flooding effects associated with the project are discussed in Section 4 of the AEE.</p> <p>However, given the site is located 24m above sea level, there is unlikely to be any connection between tidal levels and localised flooding in the Dome Valley, and as such no further assessment of this has been undertaken.</p>
	Instability	Neighbours to the north west, public open day attendees	<ul style="list-style-type: none"> Reports of land instability in the area 	<p>The geotechnical interpretive report (Technical Report B of the resource consent application) concludes that the key criteria for site selection, as set out in the Technical Guidelines for Disposal to Land (WasteMINZ, 2018) are met, and that potential instability risks can be managed through excavation and design of the landfill. As part of the resource consent process, robust geotechnical investigation work will be required to determine ground condition suitability.</p>
	Native vegetation	Neighbours to the north west, public open day attendees, iwi representatives	<ul style="list-style-type: none"> A desire to have protection and covenanting on native bush. 	<p>Proposed provisions in the precinct retain the existing protection provided to these areas in the AUP, which makes proposals to adversely affect these areas a non-complying activity.</p> <p>The resource consent application proposes to enhance and protect areas of native vegetation.</p>

4 Assessment of effects on the environment

4.1 Introduction

Clause 22(2) of Schedule 1 requires “Where environmental effects are anticipated, the request shall describe those effects, taking into account clauses 6 and 7 of Schedule 4, in such detail as corresponds with the scale and significance of the actual or potential environmental effects anticipated from the implementation of the change, policy statement, or plan”.

As noted earlier, the focus of this assessment is on the actual or potential environmental effects arising from the PPC. In this case, the PPC is not authorising any works, in the sense of making any activities permitted, and the only change is to re-classify certain activities from non-complying, to either discretionary or restricted discretionary, and to insert specific objectives and policies relating to activities proposed within the precinct.

The proposed precinct provisions still require a detailed effects assessment of the design and operation of a proposed landfill as part of the consenting process. This would include the measures that the applicant proposes to avoid, remedy, mitigate, or off-set any potential adverse effects on the environment. Consequently, these matters are not assessed here. The technical reports referenced have been prepared in support of the PPC as well as the consent application, and as such these reports address both the suitability of the site, and the management of adverse effects associated with the design and operation of the landfill proposed for the area (Volume 2).

Because there will be no additional effects arising from the PPC that would not have arisen under the AUP as it exists, the focus of the AEE is on the planning implications of the changed activity status, and in particular whether the proposed precinct is in an appropriate location.

As set out in Appendix D of the Plan Change application, the proposed site for the Auckland Regional Landfill was identified as the result of an extensive site selection process, undertaken over the course of a number of years. This process took into account a range of considerations, including underlying geology, site access, cultural values and ecological values. Sites with listed ecological values (identified by the AUP) within a potential landfill footprint were avoided, consistent with the criteria listed in the Technical Guidelines for Disposal to Land (August 2018).

The technical guidelines recognise that a balanced approach to site selection is required, as no one site is likely to score highly on all criteria. As described in the Plan Change application, the Wayby Valley site was identified as the preferred site for the landfill development following an extensive site selection process as it scored highly in the assessment due to a number of factors, including the ability to avoid scheduled sites of cultural significance, SEAs and other identified features in the AUP (or PAUP as it was then).

4.2 Positive effects

The establishment of the Auckland Regional Landfill precinct on the site is considered to result in positive effects and benefits, beyond what is provided by the existing provisions of the AUP that apply to the site currently. These positive effects are summarised below:

4.2.1 Managing reverse sensitivity effects

The impact of reverse sensitivity and particularly its effect on regional infrastructure is one of the drivers behind the proposal to establish a precinct at this site. Landfills form part of the region’s infrastructure, and provide a vital service in the operation of the city. However, by their very nature and size, they can be subject to reverse sensitivity effects if the surrounding land is subsequently developed, with sensitive receivers coming within close proximity to the operation. These

subsequent developments might not be directly compatible with the infrastructure, resulting in increased complaints and operational challenges or restrictions for the landfill.

To protect any landfill development within the precinct, WMNZ has secured a large area of land for the precinct, which will enable a large buffer to surround the landfill, which will to a large extent manage reverse sensitivity effects where possible. In addition, by showing the precinct in the AUP planning maps and acknowledging its presence, future landowners will be able to make informed decisions about potential land uses and development. This is likely to positively contribute to managing reverse sensitivity effects.

Furthermore the establishment of the precinct for a recognised form of infrastructure, helps to deliver on key objectives that sit in the Regional Policy Statement around protecting infrastructure from reverse sensitivity effects.

4.2.2 Enabling regionally significant infrastructure

As recognised by the AUP, municipal landfills are a vital piece of regional infrastructure. The establishment and operation of infrastructure in itself provides a positive benefit to the region, as it provides a necessary service, which enables society to function. Landfills such as the Auckland Regional Landfill provide an important component of the overall waste management system for the Auckland region. They provide a final point of disposal for residual wastes which cannot be reduced, reused or recycled. Waste is generated by residential households, commercial and industrial businesses as well as through construction activity. The functioning and growth of Auckland cannot be supported if there is no infrastructure in place to deal with waste generated.

The Auckland Regional Landfill will provide a regional contained and controlled location for disposal of residual waste which has not been diverted or recycled. In the absence of a controlled disposal location for containment of waste, there would be potentially significant adverse environmental and economic effects associated with uncontrolled waste.

In particular, by removing the non-complying status and introducing supportive objectives and policies, the precinct will enable a full merits assessment of a proposed landfill development through the resource consent process. In addition, the restricted discretionary activity status for re-consenting discharges will provide more certainty and efficiency for the ongoing operation of regionally significant infrastructure.

The landfill will serve as a significant piece of infrastructure for the Auckland region, and the majority of waste disposed of in the landfill is anticipated to come from within the Auckland region, however, waste from other regions would also be accepted.

4.3 Geology

4.3.1 Site suitability

The underlying geology is a critical consideration when selecting a site for landfill development. Ideally, the geology should provide long term natural containment of leachate, as an additional safeguard should the engineered lining system ever fail. As such, high permeability soils, karst geology or areas subject to coastal erosion are avoided.

The geology within the proposed landfill footprint identified in Sub Precinct A includes variably weathered and fractured Pakiri Formation bedrock and associated residual soils. The bedrock and residual soils generally have low permeability, which should provide good natural containment. The site is not close to the coast, or any active faults and does not overlie Karst geology or high permeability sand and gravel. The rock and soil materials available on site are generally suitable for liner construction and landfill operation. Additional engineering controls will need to be provided as

part of the landfill design to provide additional containment and protection to the surrounding environment where the WMNZ landholdings are underlain by fractured rock.

The ground investigations as set out in the Geotechnical Interpretive Report (Technical Report B), have indicated that the underlying geology of Sub Precinct A is generally suitable and appropriate for landfill development, provided that the landfill is constructed in general accordance with the Technical Guidelines for Disposal to Land⁷ and recommendations contained within the Geotechnical Interpretive Report.

4.3.2 Slope stability

The development of a landfill relies on having a safe and efficient site with good slope stability. Slope instability can cause a range of potential adverse effects, including uncontrolled sediment discharges and damage to the landfill lining system. Slope instability can be triggered by placing fill on a slope (fill embankments) or cutting into a slope, destabilising the material above. As such, it is important to identify potential instability risks, and adapt the design accordingly to remove or manage the area.

Some pockets of historic land instability have been identified within the proposed precinct boundary, including a couple of potential historical areas of landslips within Sub Precinct A. This will need to be assessed and managed during detailed design and consenting of the landfill when applied for under the precinct provisions. The Geotechnical Assessment concludes that this risk can be appropriately managed through design and construction measures.

In summary, while there are some areas of potential historical instability within the proposed precinct, these will be managed (avoided, remedied or mitigated) during the landfill design and construction process, such that the potential risks and associated adverse effects of slope instability will be minor.

4.3.3 Seismic risk

Earthquakes pose a potential risk to landfill stability and containment. In the event of an earthquake, there is a risk of liner failure or collapse. Accordingly, the potential seismic risk to a future landfill was a key consideration during consideration of the precinct. A site specific seismic hazard assessment has been prepared for the site to assess the risks (Technical Report C).

The study concluded that the proposed Auckland Regional Landfill site is in an area of relatively low seismicity compared to the rest of New Zealand. There are no active faults present within 20 km of the project site according to the New Zealand Active Faults Database, and no significant fault zones were encountered in the boreholes or other geotechnical investigations. The site specific study predicted lower levels of shaking during a hypothetical earthquake event than specified in the relevant design standards for the site. As the landfill will be required to meet the relevant standards⁶, then the landfill seismic design standards are considered to be conservative. By designing to the relevant seismic design standards, the adverse effects of seismic risk are expected to be minimal and within accepted engineering standards for the proposed activity.

4.3.4 Conclusion

Overall, the Geological Investigation Report (Technical Report B) and the Seismic Hazard Assessment (Technical Report C) has confirmed that the underlying geology within Sub Precinct A is suitable for landfill development. The landfill footprint is underlain by low permeability soils, and fractured bedrock, which combined with some additional engineering controls will provide good containment.

⁶ NZS1170.5 and the Bridge Manual

The precinct land is not close to any active faults, and suitable soils are located within the precinct for liner construction and landfill operation.

Ongoing investigations and oversight from geotechnical engineers throughout the life of the landfill will need to be considered as part of the resource consent process, to inform design and ensure that the landfill is constructed to appropriately manage the existing ground conditions. WMNZ has a track record of successfully managing geotechnical hazards and risks at other operating landfills.

4.4 Compatibility with surrounding land uses

The proximity of a potential landfill to other land uses needs to be considered, to manage effects on the amenity of surrounding areas from landfill operations. Of particular relevance is the availability of buffer between the landfill activity and surrounding land-uses, and the nature of existing and likely future surrounding land uses.

Regarding the availability of buffer, the separation distance to existing sensitive receivers from Sub Precinct A is more than 1km, with most of the separation distance being provided by the remainder of the precinct, achieving a large buffer from surrounding land-uses.

In relation to surrounding land-uses, plantation forestry dominates the existing land-use to the north, south and east of the proposed precinct, whilst pasture and lifestyle blocks dominate to the west. The proposed precinct is located within the Rural Production Zone. This zone is intended to provide for the use and development of land for rural production activities and rural industries and services, while maintaining rural character and amenity values. The zone permits a wide range of activities including intensive farming, forestry, farm or forestry quarries. Some of these activities can have similar types of amenity and visual effects to a landfill operation, such as odour, dust, and earthworks. Consequently, the effects of a landfill on rural character (assuming appropriate management of effects through the resource consent process) are broadly consistent with those anticipated within the zone.

The precinct provisions include mandatory public notification of applications for construction, operation and maintenance of landfills, enabling surrounding landowners the opportunity to participate in the consent process, and comment on potential effects on the surrounding land uses.

In summary, the large separation distances, nature of existing and zoned activities, and the ability for surrounding land users to participate in the resource consent process mean that the compatibility of the proposal can be appropriately assessed and managed through the resource consent process.

4.5 Air quality

The potential air quality effects of a landfill generally fall into two categories – amenity effects associated with odour and dust, and potential human health effects associated with landfill gas (LFG) generation and combustion.

The main potential sources of odour at a landfill are from the waste itself or from LFG which contains traces of odorous gases. LFG and waste odours are intrinsically offensive in character and could potentially cause adverse amenity effects for surrounding receivers. Dust will be generated at the landfill, particularly during dry, windy conditions, either during construction earthworks, or associated with daily landfilling operations. This has the potential for nuisance effects if not well-controlled.

The combustion of LFG in the generators and flares at the Renewable Energy Centre will generate exhaust containing a number of contaminants. These contaminants are principally products of combustion (fine particulate, oxides of nitrogen (NO_x), carbon monoxide (CO) and sulphur dioxide (SO₂)) similar to those generated by burning natural gas or other hydrocarbon fuels. These products

of combustion have the potential to cause adverse health effects if people are exposed to them at sufficiently high concentrations. This can include both acute (short term) and chronic (long term) exposures. An objective is proposed for the precinct requiring that human health be protected from the adverse effects from landfills. This is to ensure the potential effects on health are given appropriate consideration during future resource consent processes.

The magnitude of these effects from landfills is primarily determined by separation distance and operational controls. As operational controls will be a matter to be assessed through the resource consent process, separation distances are the key consideration when assessing the appropriateness of this site for landfill development and for its identification as the Auckland Regional Landfill precinct. As discussed in section 4.1, a large separation distance of at least 1 km has been achieved from the proposed landfill valley to surrounding sensitive receptors (residential dwellings). Most of the buffer is provided by WMNZ owned land, which will contribute to maintaining separation. Further, a standard is proposed for activities in the precinct, whereby if odour is likely to be offensive or objectionable beyond the precinct boundary, it would default to a non-complying activity.

WMNZ secured a large landholding in order to enable the future development of a landfill, with a substantial buffer around it, to separate the activity from surrounding land-users.

It is in WMNZ's interests to protect their buffer into the future. If any land within the precinct was to be sold, WMNZ would require a covenant to be placed upon the title, as well as an easement relating to the generation of nuisance effects.

Covenants and easements have been used by WMNZ to protect their buffer from sensitive uses at other landfill sites throughout New Zealand, including at Redvale Landfill.

In addition, the precinct and surrounding area is zoned Rural Production Zone, which corresponds to a Medium air quality – dust and odour rural area (Chapter E14 of the AUP). This recognises that activities which occur in the Rural Production Zone may generate odour and dust, providing for a 'permitted baseline' of these effects. Assuming the effects of the landfill are appropriately assessed and managed through the consent process, the effects of odour and dust will be consistent with the expected air quality in the zone.

Consequently, given the large separation distances and the underlying zoning, there are no air quality effects which cannot be addressed through a resource consent process.

4.6 Groundwater

One of the main by-products from the waste degradation process is leachate. Should leachate escape into the surrounding environment, it has the potential to migrate into and contaminate groundwater. Potential effects on groundwater quality will be largely avoided by the design and construction of an appropriate landfill lining system which captures the leachate, and through waste acceptance criteria to control the properties and characteristics of the leachate. The nature of the lining system and waste acceptance criteria will be considered through a resource consent process for the landfill. To preserve minimum standards for the lining system through the resource consent process, a standard has been proposed in the proposed precinct provisions, which requires a lining system which meets the requirements of the Technical Guidelines for Disposal to Land (WasteMINZ, 2018). Proposed policy 3 of the precinct also requires adoption of appropriate waste acceptance criteria and a best practice lining system. Regarding the suitability of the groundwater system below the site for landfill development, the regional groundwater is located at a significant depth below the WMNZ landholdings, separated from shallow groundwater by low permeability unweathered bed rock.

The Auckland Unitary Plan contains an extensive suite of objectives, policies and rules which control effects on water quality. Any proposed landfill in the precinct would be subject to the water quality controls in the wider AUP, as the precinct does not establish alternative controls for activities within the precinct. The Auckland Council best practice guide states that precincts should not duplicate rules which are contained within the AUP.

4.7 Flooding

Changes in impervious areas in relation to landfill development can result in increased stormwater peak flows, higher stormwater volumes, and longer duration peaks flows during storm events. These changes to the hydrology of an area can result in increased flooding if the capacities of the existing systems and streams are not adequate to handle the increased flows.

The margins of the main stream channels within the proposed precinct and an area to the east of SH 1 in the Southern Block are identified by Auckland Council mapping as floodplains. This overlay identifies areas predicted to be covered by flood water as a result of a rainstorm event of a scale that occurs on average once every 100 years, based on hydraulic modelling.

The total Precinct represents a small proportion of the Hōteao catchment, approximately 2.6 % of the Hōteao catchment area (with the landfill footprint representing 0.2 % of the catchment area). The Wayby Valley flood plain is downstream of the Precinct and is approximately 430 ha. There is existing flooding within the Hōteao Catchment, although there are no known published effects on any dwellings within the catchment. Flooding does however restrict access to properties at times and can cause flooding of sections of State Highway 1.

The management of adverse effects of flooding will largely be determined by the landfill design, including stormwater detention. This will be assessed as part of a resource consent process.

Given the limited extent of identified floodplains within the Precinct, the very small percentage of the catchment covered by the landholdings, and the ability to manage runoff volumes and rates through detailed design and consenting, it is considered that potential effects of flooding can be appropriately assessed through a resource consent process.

4.8 Terrestrial ecology

Construction of a landfill in the precinct would involve clearance of vegetation and earthworks, which would result in loss of vegetation and habitat, and potential effects on native fauna and flora located within these areas and the immediate surrounds. Extensive fieldwork has been undertaken to identify the ecological values present on site. A range of native fauna have been identified as present or likely to be present across the Precinct, including low levels of long-tailed bat activity, North Island fernbird, spotless crane, Hochstetter's frog, several lizard species, rhytid snails, and peripatus. The species found were broadly consistent with what is known to occur in the surrounding area. Areas of native vegetation and wetlands have also been identified.

The proposed precinct includes several areas which have been identified as having particular ecological value in the AUP. This includes several Significant Ecological Areas, Wetland Management Areas, and Natural Stream Management Areas. The precinct provisions include standards which would mean that any application to encroach upon the recognised SEAs, WMAs, ONLs and NSMAs⁷ would be a non-complying activity, consistent with the wider provisions in the AUP. Further, an objective is proposed that works within these areas are avoided.

The specifics of the project design, discharges and footprint are outside the scope of the matters to be considered for the proposed precinct, as these will be subject to a full assessment as part of the

⁷ Noting that an exception is allowed for a small encroachment into the NSMA in the area shown on the proposed precinct plan

resource consent process. The consent process would require the applicant to demonstrate that adverse effects have been avoided, remedied and mitigated appropriately, and where suitable, off-set and compensation may form part of this assessment. This would likely include requirements to minimise the project footprint and to salvage and relocate fauna which are within the footprint. However, due to the nature and scale of a landfill development, some adverse ecological effects are likely to be unavoidable and therefore a key component of the consenting process is likely to be an ecological compensation and off-set package. This would need to be considered as part of the consent process, and is provided for in the objectives and policies in the AUP.

Due to the potential to avoid, remedy, mitigate, off-set or compensate effects on terrestrial ecological values through the resource consent process, there are sufficient merits to warrant the change from non-complying to discretionary, and the proposed objective and standard in the precinct provision will avoid effects on identified high value areas in any future consenting process.

4.9 Effects on surface water systems

The potential effects on surface water systems from developing a landfill within the precinct include potential changes to stream habitat, water quality and effects on freshwater fauna. Regarding water quality, the precinct provisions do not replace the rules or assessment criteria for stormwater discharges in E7, E8, E9, E10 and E33, or for erosion and sediment control in Chapters E11 and E12. Future applications for the activities regulated by these chapters would continue to be assessed under the existing rules and assessment criteria in the AUP. Consequently, Council would have the opportunity to consider any potential water quality effects from the proposed landfill operation within the precinct at the time of assessing a consent application.

Extensive fieldwork has been undertaken to identify the extent and character of streams present within the Precinct. In regard to freshwater fauna, the fish recorded at each fishing site generally reflect species recorded in nearby catchments.

It is noted that the primary land uses within the precinct are grazed pasture and plantation forestry, both of which are known to have impacts on streams. In particular, during a forestry harvest cycle, large quantities of sediment and loss of riparian margins can significantly impact on the ecological values present within streams.

Stream reclamation is an almost inevitable consequence of developing a landfill in the Auckland Region, as any large valley system which may be suitable for development as a landfill will likely have streams present due to climatic conditions in Auckland (subtropical with high rainfall). However, proposed policy 5 requires that adverse effects be avoided, remedied or mitigated generally and provides for the use of offsetting or compensation to manage significant residual adverse effects associated with the reclamation of stream beds and associated loss of freshwater systems.

However, in recognition of, and reflective of, the other higher order (RPS) objectives and policies relating to infrastructure, the proposed policies do not require full compensation or offsetting.

In addition, the precinct includes measures to protect stream systems which have been recognised as being of particularly high quality. Proposed objective 4 relates to avoidance of Natural Stream Management Areas. Further, if more than 200m² of encroachment into a Natural Stream Management Area was to be proposed, this would default the application to a non-complying activity status under the proposed standards in the precinct. These provisions will contribute towards an appropriate level of protection being provided to these recognised freshwater systems.

It is considered that the proposed precinct provisions will provide for an appropriate assessment through the resource consent process, with high value streams being afforded a higher level of protection, and with policies requiring effects to be avoided, remedied or mitigated, or when significant effects are unavoidable, offset or compensated.

4.10 Landscape and visual amenity

Construction and operation of a landfill within the precinct would result in changes to landscape character and resources. Some areas of the Precinct are recognised as being sensitive to change (see Technical Report H). These areas cover a limited extent of the site, and consequently through the consent process and project design, consideration can be given to avoiding these areas.

The visibility of a landfill within the precinct would be determined by its visual catchment, which is the area or extent from which all or part of the project is visible. The visibility of the project will be affected by topography and elements within the landscape such as buildings, fencing and vegetation that may screen or obscure views of the project.

Changes to an outlook can impact on visual amenity. The project is predominantly located in a working landscape that accommodates farming and forestry practices. These land uses provide an ever-changing context that the developing project will be seen against.

The design and operation of the landfill will directly influence the visibility of the project. As part of the consent process, the applicant would be able to propose measures to avoid remedy or mitigate effects, which may include screening planting.

Due to the buffer provided by the wider Precinct, and the relatively undeveloped nature of the surrounding area, viewing audiences are likely to be limited and largely will view activities on the site from significant distances.

Due to the separation distances, ability to reduce visual amenity effects through the project design and the dynamic nature of the existing land-uses, there are no potential landscape or visual effects that would preclude the effects being considered through a resource consent process.

4.11 Cultural values

The objectives and policies within the AUP relating to mana whenua values, and particularly within the RPS would likely be relevant to any future application and would need to be taken into account in the decision making process for that future application.

As part of the site selection process, consideration was given to the location of marae and areas of significance to iwi. As the site selection process was a confidential desktop exercise, this was assessed using information available on the New Zealand Archaeological Association ArchSite, Auckland Council Geo Maps, ownership identified by Certificates of Titles, and Treaty Settlement agreements. Areas that were in legal ownership of iwi (as recognised by LINZ), incorporated Marae, or were listed as sites of significance to mana whenua were avoided. There are no publicly listed or mapped specific areas within the proposed precinct which are identified as being of cultural significance.

In recognition of potential effects on cultural values, including the recognised importance of the Hōteio River, an objective is proposed that the mauri of freshwater and indigenous biodiversity is maintained and preferably enhanced outside of the operational areas of the landfill. In addition, a policy is proposed that an assessment of effects on mana whenua values is undertaken as part of any assessment of an activity in the precinct. The policy also provides for mana whenua to exercise kaitiakitanga and the adoption of an accidental discovery protocol. In recognition of the potential effects of discharges on cultural values, a policy is proposed to manage discharges of contaminants into water and air from the Auckland Regional Landfill's operations to avoid where practicable, and otherwise minimise, adverse effects on Mana Whenua values associated with coastal water, freshwater and geothermal water, including wāhi tapu, wāhi taonga and mahinga kai. This is to provide for recognition of these potential effects during future resource consent processes.

WMNZ is engaging with iwi so that their culture and traditions, and their ancestral land and water are considered and that the principles of the Treaty of Waitangi are taken into account. Consultation will continue throughout the PPC and resource consent process, and beyond. The Precinct fall within the rohe of Ngāti Manuhiri, who have prepared a Cultural Values Assessment (CVA) for the project. This has been provided to and considered by WMNZ. The potential cultural effects are broken down into seven key themes as identified by Ngāti Manuhiri; whenua (land), wai (water), hau (air), biodiversity, wāhi tapu and taonga, social, economic and cultural wellbeing, and future management. These are identified as key areas of importance to Ngāti Manuhiri, and as part of any consent application, effects on any of these would need to be managed. WMNZ is working with Ngāti Manuhiri to respond to the matters raised in their CVA as part of the parallel resource consent process. WMNZ acknowledges that Ngāti Manuhiri may have additional concerns, not necessarily encapsulated in that CVA.

Whilst WMNZ has only received one CVA for the resource consent application to date, engagement with other iwi has also been occurring consistent with the requirements of good practice, and in accordance with the obligations in the AUP and in the RMA. Similar areas of interest and concern have been raised at hui with other iwi, in particular the potential effects on water bodies such as the Hōteu and the Kaipara Harbour. WMNZ will continue to engage with other iwi and will respond to any issues raised as the PPC process continues. If other CVAs are provided by mana whenua, WMNZ will undertake the same process with those groups.

4.12 Archaeology

The landfill development will involve bulk earthworks, which has the potential to impact on archaeological features. As such, a desktop and field study was undertaken by Maatai Taonga (Technical Report K) to determine whether any archaeological features are present within the Precinct. No archaeological sites are recorded on the property, and the study did not identify any evidence of potential archaeological values within the proposed footprint of the project. Further, due to the nature of the site soils and terrain, Māori archaeological sites or settler cottages are unlikely to be present. To manage the risk of uncovering unexpected archaeological features, the proposed precinct provisions include a policy adoption of an accidental discovery protocol. Overall, it is considered that potential adverse effects on archaeological values can be managed through the consent process and there are no known archaeological features which would make this site inappropriate for development.

Development of a new landfill in future in Sub-precinct A still needs consent under the proposed precinct provision, so the opportunity exists to consider archaeology and heritage through this process. In addition, the precinct does not replace any of the relevant provisions in the AUP regarding historic heritage and sites of value to mana whenua, so where relevant, these would apply to future activities on the land. The provisions of the Heritage New Zealand Act would also apply to any pre-1900 archaeological sites.

4.13 Traffic

The precinct provisions do not replace the provisions in E27 of the AUP, which would continue to apply where relevant to activities within the precinct. As with all precincts in the AUP, the activities, standards and assessment in the underlying zoning (in this case Rural Production) apply in precincts unless otherwise specified. The provisions in the Auckland-wide provisions and any relevant overlays apply in this precinct unless otherwise specified.

Potential traffic sources from developing a landfill within the precinct include the initial construction and site establishment works, staff movements, and refuse trucks. Additional traffic movements can increase congestion on roads and increase safety risks. Traffic effects can be managed through controls on traffic volumes, road design, and site management measures, which could be considered

and assessed through a consent application process. In addition, any proposed access off a State highway is required to go through NZTA's established safety audit process, which will require the design of any intersection to minimise safety risks.

Of particular note regarding the suitability of the proposed precinct for landfill development is its proximity to State Highway 1. This was a key consideration during site selection (Appendix D). A primary requirement for any site considered was that it would be accessible from within a corridor 2 to 5 km wide, either side of a State highway to the north and north-west of the Auckland CBD. This constraint immediately removed large areas of land in the central northern areas of the Auckland Region between SH16 and SH1 from consideration, but in the context of a new regional landfill site, this was considered appropriate due to the number of heavy truck movements over the lifetime of the operating landfill and therefore the need to be as close as possible to main arterial routes.

While most rural areas serviced by the secondary road network receive regular flows of heavy traffic, much of this is service and farm related and is accepted as normal. However, from the perspective of siting and consenting a new regional landfill facility, where truck movements are likely to exceed one million truck movements over the life of the facility, access from a primary regional haul route is considered an essential requirement. Previous case law from landfill consent processes has confirmed the critical importance of this consideration and therefore areas which are not within direct access distance of one of the State highway routes have been discounted from consideration from the outset. In short, all such areas were considered unlikely to be authorised due to traffic impact and related considerations, and were excluded. The proximity of the proposed precinct to State Highway 1 resulted in it scoring highly during the site selection process.

Further, there are ongoing changes to the surrounding road network, including the Dome Valley Safety Upgrades and the Puhoi to Warkworth motorway upgrade. These changes are expected to improve the safety and performance of State Highway 1. Although not considered necessary for the development and operation of the ARL, should the proposed Warkworth to Te Hana project proceed it will significantly improve safety on the current stretch of SH1 through the Dome Valley.

Additional assessment of the potential implications of a landfill being established in the precinct on the wider traffic network is contained in Appendix G. This demonstrates that the road network can accommodate the potential traffic volumes associated with a landfill operation.

In summary, the site is considered suitable for the proposed precinct due to the existing roading network combined with the proximity of the precinct to State Highway 1, with future improvements further enhancing the site suitability. Controls on traffic volumes, road design, and site management measures to manage potential traffic effects would be considered as part of the resource consent process.

4.14 Conclusion

As the PPC will not authorise any activities, and there are no additional effects arising from the PPC that would not have arisen under the AUP as it exists, the focus of the AEE is on the planning implications of the changed activity status, and in particular whether the proposed precinct is in an appropriate location. In summary, the extensive site selection process and site investigations have demonstrated that the site is broadly appropriate for landfill development, with the specific assessment of a landfill development, including design, site layout and management to be subject to a full resource consent process.

Consequently, this is considered to be an appropriate site for landfilling to be classified as a discretionary activity, with effects being subject to a full merits assessment through the resource consent process.

5 Planning framework

There are a number of strategic and statutory planning documents which have informed the development of this PPC request. This section provides a summary of those documents.

5.1 Auckland Unitary Plan

The AUP is a combined regional and district plan as provided for under s80 of the RMA and it also includes the regional policy statement. The AUP sets out a clear hierarchy of provisions, beginning with the regional policy statement provisions first. These objectives and policies set the high level framework and give the overview of the issues of the region. The subsequent objectives and policies within the regional and district provisions must give effect to these. In other words, the AUP is deliberately a vertically integrated plan, which is intended to be read and applied as such.

5.1.1 Regional Policy Statement

The Regional Policy Statement (RPS) is required by s59 to 62 of the RMA to provide an overview of the resource management issues of the region and policies and methods to achieve integrated management of the natural and physical resources of the whole region. The RPS must also give effect to any national policy statement and it has a relationship with the Auckland Plan, as this plan prepared under the LGA sets a long term strategy for Auckland's growth and development.

The RPS provisions set out a number of issues of regional significance which are then developed further through objectives and policies. The RPS objectives and policies are concerned with managing effects, but also with supporting and enabling regionally significant infrastructure to operate efficiently to support the existing and projected future population. Of particular significance to this proposal are the following issues:

- B2 Urban growth and form – Auckland's growing population increases demand for housing, employment, business, infrastructure, social facilities and services. Growth needs to be provided for, including the provision and use of infrastructure in a way that is efficient, effective and timely.
- B3 Infrastructure, transport and energy – the quality of the environment and the well-being of people and communities are affected by the management of and investment in infrastructure.
- B6 Issues of significance to Mana Whenua – recognising Treaty of Waitangi, protecting Mana Whenua culture and landscapes and recognising the interests, values and customary rights.
- B7 Natural resources – the combination of urban growth and past practices have placed pressure on land and water resources and reduced air quality.
- B9 Rural environment – protecting the finite resource of elite soils and minimising the loss of rural production land.
- B10 Environmental risk – Auckland's growth will increase pressure to develop areas more susceptible to natural hazards, which could impact on the resilience of Auckland's economy, environment, and communities in the future.

From these issues a number of objectives and policies that are relevant to landfills are included. They are important as they set the over-arching framework for the regional and district rules that follow, with these provisions required under s67 and s75 of the RMA to give effect to the RPS.

A strong theme across many of the objectives and policies, particularly in relation to effects on water and ecological values, is that adverse effects from infrastructure are anticipated and are appropriate when there are no practical alternatives.

Appendix E groups the regional policy statement, regional plan and district plan provisions of the AUP into key themes, alongside the proposed objectives and policies for the precinct. The table provides comment on the proposal in relation to these key themes and an assessment of how the new objectives and policies fit with the overarching structure of the AUP.

In summary, the proposed precinct objectives and policies are broadly consistent with, and give effect to, the key themes in the AUP and in particular B3 – Infrastructure. The changes will not result in any inconsistencies with the RPS. The RPS recognises and provides for effects on natural resources from infrastructure, on the basis that effects will be assessed and managed to the extent practicable. Future consent applications under the proposed precinct provisions would be assessed against the objectives and policies in the proposed precinct as well as the broader AUP objectives and policies. The applications would also be required to avoid, remedy and mitigate adverse effects, and the PPC will not significantly alter the extent to which this will need to occur. National Policy Statements

There are five national policy statements, which state objectives and policies for matters of national significance:

- National Policy Statement on Urban Development Capacity
- National Policy Statement for Freshwater Management
- National Policy Statement for Renewable Electricity Generation
- National Policy Statement on Electricity Transmission
- New Zealand Coastal Policy Statement

Of these, two are relevant to the PPC, as discussed below.

5.1.1.1 National Policy Statement for Renewable Electricity Generation 2011

The National Policy Statement for Renewable Electricity Generation 2011 (NPS) recognises the importance of renewable energy and will help New Zealand achieve the Government's target of 90 per cent of electricity from renewable sources by 2025. The NPS promotes a more consistent approach to balancing the competing values associated with the development of New Zealand's renewable energy resources when councils make decisions on resource consent applications.

Biogas is considered a source of renewable energy. Redvale Landfill is Auckland's largest producer of renewable energy in the Auckland Region. ARL is proposed to take over from Redvale as it closes and Redvale's electricity gradually declines over the ensuing 25-30 years. The proposed precinct provides for electricity generation from biogas.

5.1.1.2 National Policy Statement for Freshwater Management 2014

The National Policy Statement for Freshwater Management (NPS Freshwater) came into effect in July 2014 and applies to the proposed precinct given the activities proposed on the site. Future applications for activities within the proposed precinct would be considered against the NPSFW, in accordance with the requirements of s104 of the RMA. Much of the detail around managing effects on freshwater will be addressed through a consenting process, but an assessment of the relevant provisions of the NPS Freshwater in relation to the precinct provisions is set out in Table 5.1 below.

Table 5.1: Assessment against NPS Freshwater

Reference	Objective/policy	Comment
Objective AA1	To consider and recognise Te Mana o te Wai in the management of fresh water	In recognition of Te Mana o te Wai, the PPC provisions include an objective requiring the mauri of freshwater to be progressively enhanced over time, and a policy requiring effects on mana whenua values to be appropriately assessed and managed when considering future applications under the proposed precinct.
Policy AA1	By every regional council making or changing regional policy statements and plans to consider and recognise Te Mana o te Wai, noting that: a) te Mana o te Wai recognises the connection between water and the broader environment – Te Hauora o te Taiao (the health of the environment), Te Hauora o te Wai (the health of the waterbody) and Te Hauora o te Tangata (the health of the people); and b) values identified through engagement and discussion with the community, including tangata whenua, must inform the setting of freshwater objectives and limits.	
Objective A1	To safeguard: a) the life-supporting capacity, ecosystem processes and indigenous species including their associated ecosystems, of fresh water; b) the health of people and communities, as affected by contact with fresh water; in sustainably managing the use and development of land, and of discharges of contaminants.	Whilst the specific measures to address this objective would need to be assessed through a resource consent process, the precinct includes provisions which provide protection for identified significant water bodies, and an objective requiring human health to be protected from the adverse effects of operational or closed landfills.
Objective A2	The overall quality of fresh water within a freshwater management unit is maintained or improved while: a) protecting the significant values of outstanding freshwater bodies; b) protecting the significant values of wetlands	There are identified significant wetlands (Wetland Management Areas) and outstanding freshwater bodies (Natural Stream Management Areas) within the precinct. An objective and a standard are proposed within the precinct, to provide protection to these areas in future consenting processes.
Objective B4	To protect significant values of wetlands and of outstanding freshwater bodies.	In addition, an objective is proposed for the precinct that the mauri of freshwater within those areas of the precinct not required for the development and operation of the Auckland Regional Landfill is maintained and preferably enhanced over time.
Objective D1	To provide for the involvement of iwi and hapū, and to ensure that tangata whenua values and interests are identified and reflected in the management of fresh water including associated ecosystems, and decision-making regarding freshwater planning, including on how all other objectives of this national policy statement are given effect to.	The proposed precinct provisions include a policy which provides for appropriate assessment of effects on mana whenua values.

Reference	Objective/policy	Comment
Policy D1	Local authorities shall take reasonable steps to: <ul style="list-style-type: none"> a) involve iwi and hapū in the management of fresh water and freshwater ecosystems in the region; b) work with iwi and hapū to identify tangata whenua values and interests in fresh water and freshwater ecosystems in the region; and c) reflect tangata whenua values and interests in the management of, and decision-making regarding, fresh water and freshwater ecosystems in the region. 	

Overall, the proposal is considered to be consistent with the Freshwater NPS.

5.2 Non-statutory context

5.2.1 The Auckland Plan

The Auckland Plan is a spatial plan that sets the direction for how Auckland will grow and develop over the next 30 years. This plan was recently updated in 2018 to further build on what was done in the 2012 plan. The plan includes a number of outcomes and within these outcomes are directions and focus areas. Some of these have particular relevance to the proposed development of the Auckland Regional Landfill and therefore are discussed below to provide some wider context.

Direction 4 under the Environment and Cultural Heritage outcome is to 'Ensure Auckland's infrastructure is future-proofed'. It is essential that Auckland's infrastructure can withstand short-term shocks, such as natural hazards and can also work in the long-term, particularly in the face of longer-term climatic changes and a growing population. Landfills are critical infrastructure which will support Auckland's growth – as such, the providing for the establishment and operation of a regional landfill facility is well aligned with the infrastructure objectives of the Auckland Plan. It is important that Auckland maintains continuity of landfill space in the region, including allowing for potential requirements for mass disposal in the wake of a significant event such as an earthquake, and also that there is resilience in case one of the existing remaining large landfills were to become unavailable because of a natural hazard event, which could compromise access or function at one of the existing landfills.

Further, while there are no directly relevant outcomes for waste, the Auckland Plan identifies several other matters of relevance, including directions which support development of homes and places, and opportunities and prosperity for Auckland's residents. To achieve the directions set out in the Auckland Plan, supporting infrastructure is critical. A modern well-designed landfill is the best available technology for dealing with residual waste which is not able to be recycled or diverted, providing a contained disposal location for wastes and therefore playing an important part in protecting receiving environments and enabling development of the Auckland region.

As such, the provision of waste infrastructure for the region is critical to support the overarching themes of the Auckland Plan. As the precinct will enable landfill development on the site, it is consistent with the Auckland Plan.

5.2.2 Auckland Waste Management and Minimisation Plan

Auckland Council published a new Auckland-wide WMMP in 2018. It confirms and continues the vision of achieving zero waste as set out in the first plan which was released in 2012. The WMMP aims to achieve this goal by helping people in the Auckland Region minimise their waste and create economic opportunities from the reduction in waste.

The WMMP identifies a number of short to medium term actions that aim to give effect to the Council's strategic direction and to support central government legislation. The aim is for these actions to change behaviour, create efficiencies in waste management, and result in a significant reduction in waste per capita.

While Auckland's population is forecast to grow significantly, waste minimisation programmes aim to significantly reduce the proportion of waste sent to landfill.

One of the guiding principles identified under Māori priorities in the WMMP is protection of Papatūānuku, the land, including a stated objective of no new landfills. While Auckland could choose to truck waste outside of Auckland boundaries to achieve this objective, this does not remove the issue of needing to have waste infrastructure within the region or of the requirement to dispose of residual waste safely. Auckland Region is by far the largest producer of waste in New Zealand and requires waste infrastructure, including safe and secure landfill disposal facilities. Further, trucking waste outside of the region conflicts with other strategic policies and objectives of the AUP and other local and central government policies, which seek to, amongst other things, minimise vehicle emissions, reduce trip generation and manage climate change. Until Auckland reaches zero waste, the region needs to be able to manage its waste in a manner that protects the environment. Hence, until zero waste is achieved, Auckland does require access to landfill, and if existing landfills are filled before that time, new landfills will be required.

The WMMP is of importance to WMNZ and the proposed precinct as it sets a strategic and policy directive to reduce waste to landfill and that goal relies on the private sector and landfill operators to support the achievement of the goal. As identified in the WMMP, Auckland Council only controls approximately 20 % of the waste stream in Auckland, the remainder is managed by companies such as WMNZ.

WMNZ is committed to the goal of reduce, reuse and recycle and has facilities and services set up to assist the Auckland Council in achieving its goal of a reduction of waste to landfill. In particular, WMNZ's refuse transfer stations and materials recovery facilities contribute to reducing volumes going to landfill.

While the aspirational target of achieving zero waste is supported by WMNZ, the steps to achieve this will require significant local, national and international measures to be applied and these will take some time to take effect. WMNZ's view is that Auckland Council's aspirational goal of Zero waste by 2040 will be extremely difficult given the increasing population of Auckland, which is likely to counteract reductions in waste generation on a per-person basis. In the interim, it is critical that there are appropriate waste facilities to ensure the safe and environmentally secure disposal of this waste.

5.2.3 Auckland Council's draft Climate Action Framework (2019)

The draft Climate Action Framework identifies a number of waste-related actions, including diversion of food waste and transitioning towards a circular economy. To achieve waste minimisation or a circular economy, more efficient ways to reduce, reuse and recycle must be adopted. Waste management facilities, and in particular refuse transfer stations and resource recovery facilities, play an important role in achieving a reduction in waste and will affect the nature and amount of residual waste going to landfill. Opportunities to divert specific waste streams, such

as organic materials and e-waste should be explored and taken wherever possible. The existence of a landfill does not restrict or prevent these measures from being introduced. However, despite measures to reduce waste generation, for the foreseeable future there will be demand for landfill capacity for the disposal of residual waste which cannot be diverted or recycled.

5.2.4 New Zealand Waste Strategy

The revised New Zealand Waste Strategy, published in 2010, sets out the Government's long term priorities for waste management and minimisation. The Strategy's two goals provide direction to local government, businesses (including the waste industry), and communities on where to focus their efforts in order to deliver environmental, social and economic benefits to all New Zealanders. The goals are:

- Reducing the harmful effects of waste; and
- Improving the efficiency of resource use.

The precinct is intended to provide for a modern class 1 landfill⁸ to be developed on the site. The proposed precinct provisions and subsequent resource consent process under those provisions will require the landfill to be designed and managed using measures such as leachate collection systems, engineered lining systems, and systems for recovering landfill gas. Combining waste disposal into a well-designed regional landfill facility is the best available option for reducing harm to the environment from the disposal of residual waste.

5.3 Summary

The Precinct and Sub-precinct provisions, in conjunction with the Unitary Plan zoning, overlay and Auckland-wide provisions will ensure future development on the Precinct gives effect to and is consistent with the AUP Regional Policy Statement, the regional and district plan objectives and policies in the AUP, as well as the Auckland Plan.

⁸ Landfill classes are defined in the Technical Guidelines for Disposal to Land, WasteMINZ (August 2018)

6 Section 32 Evaluation

Clause 22(1) of Schedule 1 of the RMA requires that an evaluation report for the PPC be prepared in accordance with section 32 of the RMA. Section 32 sets out the matters to be considered in an evaluation report and requires that an evaluation must examine whether, having regard to efficiency and effectiveness, the policies, rules or other methods are the “most appropriate” to achieve the objectives of the PPC and the purpose of the RMA. Within this, an evaluation must take into account the benefits and costs of policies, rules or other methods. In determining the most appropriate methods, consideration of alternatives is required. Table 6.1 sets out where the reporting requirements of s32 have been addressed in this report.

Table 6.1: Section 32 requirements

Section 32 Item	Location within report or comment
1. An evaluation report required under this Act must— a. examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act	Section 6.1
b. examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by i. identifying other reasonably practicable options for achieving the objectives ii. assessing the efficiency and effectiveness of the provisions in achieving the objectives iii. summarising the reasons for deciding on the provisions	Section 6.2 Section 10.3
c. contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal	Refer to Section 4
2. An assessment under subsection (1)(b)(ii) must— a. identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for i. economic growth that are anticipated to be provided or reduced ii. employment that are anticipated to be provided or reduced	Appendix B
b. if practicable, quantify the benefits and costs referred to in paragraph (a)	As the precinct will not authorise any activities, it is not practicable to quantify the potential benefits and costs in monetary terms
c. assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions	It is considered there is sufficient information to support the proposed provisions. The precinct does not authorise any permitted or controlled activities, with future landfill

Section 32 Item	Location within report or comment
	activities being required to go through a thorough assessment as a restricted discretionary or discretionary activity. Further, given the extensive suite of supporting technical reports that have informed the basis for this PPC, there is considered to be sufficient information such that an assessment under section 32(2)(c) is not required.
3. If the proposal (an amending proposal) will amend a standard, statement, national planning standard, regulation, plan, or change that is already proposed or that already exists (an existing proposal), the examination under subsection (1)(b) must relate to—	
a. the provisions and objectives of the amending proposal	An assessment of the proposed precinct provisions against the objectives of the PPC is provided in Section 6.2.
b. the objectives of the existing proposal to the extent that those objectives— i. are relevant to the objectives of the amending proposal ii. would remain if the amending proposal were to take effect	The ‘existing proposal’ is the current objectives of the AUP. The objectives of the ‘amending proposal’ (proposed precinct) are assessed against the ‘existing proposal’ in Appendix E, which demonstrate that the amending proposal will not result in inconsistencies between the PPC and the existing provisions of the AUP. In addition, an assessment of the proposed precinct against the relevant objectives of the AUP is provided in Section 5.1.
4. If the proposal will impose a greater or lesser prohibition or restriction on an activity to which a national environmental standard applies than the existing prohibitions or restrictions in that standard, the evaluation report must examine whether the prohibition or restriction is justified in the circumstances of each region or district in which the prohibition or restriction would have effect.	Not applicable.
4a. If the proposal is a proposed policy statement, plan, or change prepared in accordance with any of the processes provided for in Schedule 1, the evaluation report must	Section 3.2.1 summarises consultation undertaken by WMNZ with iwi and hapu to date. Clause 26 of Schedule 1 requires that any relevant Mana Whakahono a Rohe be complied with.
a. summarise all advice concerning the proposal received from iwi authorities under the relevant provisions of Schedule 1	
b. summarise the response to the advice, including any provisions of the proposal that are intended to give effect to the advice	Section 4.11 outlines the provisions which have been included in the proposed precinct in recognition of, and to provide for, cultural values. Specific effects on cultural values would need to be assessed and managed through future resource consent processes.

6.1 Appropriateness of the proposal to achieve the purpose of the Act

Section 32(1)(a) of the RMA requires an evaluation to examine the extent to which the objectives of the proposed PPC request are the most appropriate way to achieve the purpose of the RMA. Part 2 of the RMA sets out the purpose and principles of the Act. The purpose of the RMA is to promote the sustainable management of natural and physical resources. The following assessment is based on the purpose of the RMA, and the guiding principles (Sections 5 to 8).

As the PPC includes proposed objectives, under section 32(6), the proposed objectives are the subject of this assessment. For completeness, the below assessment considers the proposed precinct overall, as well as the objectives.

6.1.1 Section 5 - Purpose

Section 5 in Part 2 of the RMA identifies the purpose as being the sustainable management of natural and physical resources. This means managing the use of natural and physical resources in a way that enables people and communities to provide for their social, cultural and economic well-being while sustaining those resources for future generations, protecting the life supporting capacity of ecosystems, and avoiding, remedying or mitigating adverse effects on the environment.

The PPC is consistent with this purpose. The reasons for this assessment are summarised below:

- The proposed precinct will provide for landfill establishment and operation on an appropriate site, which (if consented) will enable people and communities of the Auckland Region to provide for their social, economic and cultural wellbeing and for their health and safety by providing a sanitary and contained facility for disposal of waste that cannot be reduced, reused or recycled.
- The proposed precinct provisions include an objective that 'Human health is protected from the adverse effects of operational or closed landfills', ensure the health and safety of people and communities is considered and protected in future consent applications.
- The proposed objectives and policies for the precinct, combined with the existing provisions of the AUP that will apply to future development will ensure that development avoids, remedies or mitigates adverse effects on the environment. In particular, an objective is proposed for the precinct, requiring 'Adverse effects arising from the development and continued operation of the Auckland Regional Landfill are avoided, remedied or mitigated, or, to the extent reasonably practicable, and if offered by the applicant, offset, or compensated', which is consistent with 5(2)(c), requiring effects to be avoided, remedied and mitigated as part of specific applications for resource consent.

6.1.2 Section 6

Matters of national importance, which are to be recognised and provided for, are set out in Section 6 of the RMA. The following matters are of particular relevance to the proposed precinct:

- c *The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development.*
- d *The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development.*
- e *The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.*

The precinct includes provisions to protect rivers, wetlands, outstanding natural features and significant ecological areas. These include an objective that works within or effects on any

Significant Ecological Area overlay or Wetland Management Area overlay are avoided, and works within any Natural Stream Management Area overlay are avoided where practicable or are otherwise minimised. Further, a standard is proposed that if works are proposed within any Wetland Management Area overlay, or within any Significant Ecological Area overlay, or occupy more than 200m² of a Natural Stream Management Area overlay, then the activity would be non-complying.

- f *The relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga.*

On the basis of the assessment undertaken and the information received as at the date of lodging this PPC request, the proposal recognises the relationship of Māori with their ancestral lands and water and is consistent with section 6(e). In particular, objectives and policies proposed for the precinct will require effects on cultural values to be considered and managed in future consenting processes. Further consultation is underway and will be ongoing to better understand how this relationship can be recognised and provided for within the proposed precinct provisions.

- h *The management of significant risks from natural hazards.*

Managing risks from natural hazards was a key consideration during the site selection process. In particular, this site is located away from known fault lines.

The PPC does not authorise any activities, and does not compromise the recognition of, or provision for the matters of national importance set out in Section 6 through future consenting processes.

6.1.3 Section 7

Section 7 of the Act sets out other matters to which particular regard must be had when exercising functions and powers under the RMA. Of particular relevance to this proposal are:

- a kaitiakitanga;
- aa the ethic of stewardship;
- c the maintenance and enhancement of amenity values;
- d intrinsic values of ecosystems;
- f maintenance and enhancement of the quality of the environment;

Having regard to these matters, the proposed precinct provisions do not compromise the recognition of, or provision for these matters. In particular, the following points are noted:

- A policy is proposed for the precinct, to ensure that any assessment of environmental effects for an activity that may affect Mana Whenua values includes an appropriate assessment of adverse effects on those values, including through making provision for Mana Whenua to exercise kaitiakitanga. These opportunities would be fully developed and captured through conditions of consent in future consent processes under the provisions of the precinct.
- An objective is proposed for the precinct, which states 'The mauri of freshwater and indigenous biodiversity within those areas of the precinct not required for operations associated with the development and continued operation of the Auckland Regional Landfill is maintained and preferably enhanced over time', which will provide for cultural wellbeing and safeguarding of the life supporting capacity of water and ecosystems within the precinct.
- Amenity values and the quality of the environment would need to be assessed and managed through the resource consent process, taking into account the specifics of the proposal. However, to ensure appropriate regard is given to these matters through the consent process, objectives, policies and standards have been proposed, including a standard making off-site objectionable or offensive odour a non-complying activity, requiring minimum standards for

the landfill lining system, and protecting recognised areas of ecological significance (both terrestrial and wetlands).

In summary, it is considered that the proposal has had regard to the provisions of section 7 of the Act.

6.1.4 Section 8 – Treaty of Waitangi

Section 8 requires those exercising powers or functions under the RMA to take into account the principles of the Treaty of Waitangi. The PPC does not compromise the recognition of, or provision for these matters, as no activities are authorised by the PPC. WMNZ is engaging with iwi to ensure that their culture and traditions, and their ancestral land and water are considered and that the principles of the Treaty of Waitangi are taken into account. This will continue throughout the PPC and resource consent process. A summary of consultation to date is provided in Section 6.2.3 of this AEE.

6.1.5 Summary

The above assessment demonstrates that the proposed precinct, including the objectives, are consistent with the purpose of the RMA. The proposed objectives of the PPC are considered to be the most appropriate and effective means of achieving the purpose of the RMA, compared to the current zone or an alternative (as detailed in Section 6.2 below).

6.2 Appropriateness of the provisions to achieve the objectives

Section 32(1)(b) of the RMA requires an evaluation to examine whether the provisions in the PPC are the most appropriate way to achieve its objectives. The PPC includes 5 objectives. In addition, Section 32(3) requires that the assessment also consider the appropriateness of the provisions to achieve the objectives of the existing AUP, which includes the RPS and the district and regional provisions of the AUP. For completeness, it is also considered appropriate to consider whether the proposed provisions are appropriate for achieving the purpose of the PPC (as set out in Section 0) which is the assessment for PPCs which do not contain objectives.

The matters to be considered under s 32(1)(b) to determine whether the provisions are appropriate are:

- Identifying other reasonably practicable options for achieving the objectives
- Assessing the efficiency and effectiveness of the provisions in achieving objectives

The PPC proposes to implement a new precinct over the underlying rural zone. Therefore, the questions for evaluation are:

- Is a precinct appropriate for the site? Section 6.2.1 provides an assessment of other reasonably practicable options.
- If a precinct is appropriate, are the proposed policies, rules and standards appropriate to achieve the objectives and purpose of the PPC and the AUP? Section 6.2.2 contains an assessment of the proposed provisions.

6.2.1 Options

Section 32 of the Act requires the analysis of the requested PPC as well as alternative options to determine the most appropriate method in achieving the objectives. As such, the options were developed to explore the best means to address the issues outlined above and achieve the sustainable management purpose of the Act.

The AUP is structured in a manner that sets out Auckland-wide provisions, Zone provisions, Precinct provisions and Overlay provisions. The Auckland-wide provisions apply to the use and development of natural and physical resources across the region irrespective of zones, precincts and overlays. The Zone provisions manage the use, development and protection of land and the coastal marine area. Precincts enable local differences to be recognised by providing detailed place-based provisions which can vary the outcomes sought by the underlying zone. The Overlay provisions are established to manage the protection, maintenance or enhancement of particular values associated with an area or resource. The Overlays generally apply more restrictive provisions than the Auckland-wide, Zone or Precinct provisions.

Given the structure of the AUP, the following options are considered to be reasonably practicable options for achieving the objectives of the PPC and the AUP:

- Introduce the proposed precinct to the AUP as described in Section 3 (ie a proposed precinct, activity status of discretionary and restricted discretionary, and supporting objectives, policies, matters of discretion and assessment criteria);
- Do nothing (retain the status quo, being the existing Rural Production Zone and existing objectives, policies and rules in the AUP, and an activity status of non-complying);
- Introduce a new Special Purpose Zone for landfills (which would have an activity status of discretionary/restricted discretionary, and supporting objectives, policies, matters of discretion and assessment criteria); or
- Make changes to the Auckland wide provisions, including changes to the Rural Production Zone and other relevant provisions of the plan, to provide, on a more ad hoc basis, for landfilling activities within the Rural Production Zone.

6.2.2 Whether the policies, rules and standards are the most appropriate way to achieve the objectives

Section 32(3) requires a proposed plan change to consider the appropriateness of the provisions to achieve the objectives of the wider plan, which in this instance includes the RPS and the district and regional provisions of the AUP.

Our analysis has identified a number of themes within the AUP's objectives and policies, which run 'either way' through the higher and lower level provisions. The objectives and policies of the AUP should be read as a whole, rather than individual objectives or policies in isolation.

The AUP objectives and policies are concerned with managing effects, but also with supporting and enabling regionally significant infrastructure to operate efficiently to support the population. A strong theme across many of the objectives and policies, particularly in relation to effects on water and ecological values, is that adverse effects from infrastructure are anticipated and are appropriate when there are no practical alternatives.

Of particular significance to this proposal are the following themes:

- **Enabling infrastructure** (B3.2.1(3), B3.2.2 (1), B3.2.2 (6), B7.4.2(1), B7.5.1(2), E26.2.1(3), E26.2.1(4), E26.2.1(8) - Infrastructure is enabled within the RPS and lower level provisions of the Unitary Plan. This is because it is recognised that infrastructure has an important role to play in a resilient and well-functioning city. A key aspect of the enabling of infrastructure, is that the AUP seeks to *manage* effects of establishing and operating infrastructure rather than seeking to avoid effects. This is important and supports the enabling provisions which recognise the vital role infrastructure has to play. It provides direct recognition of the importance of infrastructure and it recognises that infrastructure can result in unavoidable effects.

- **Managing adverse effects from infrastructure** (B3.2.1(3), B3.2.1(8), B3.2.2(6), B3.2.2(8), E26.2.1(9), E26.2.2(4)) - The directive through the objectives and policies relating to the development and operation of infrastructure, is to avoid, remedy or mitigate adverse effects, rather than avoid solely. This is important and supports the enabling provisions which recognise the vital role infrastructure has to play. It provides direct recognition of the importance of infrastructure and it recognises that infrastructure can result in unavoidable effects.
- **Functional, operational and locational requirements of infrastructure are recognised** (B3.2.1(4), B3.2.2(3), D4.2(5), E14.2(4), E14.3(3), E15.3(7), E26.2.2(2)) - A key aspect of the enabling of infrastructure is that the AUP seeks to *manage* effects of establishing and operating infrastructure rather than seeking to avoid effects. It also recognises that to enable it, often allowance must be given for the functional, operational and locational requirements of infrastructure, which are different to other types of development. In this case, landfills have a number of functional and operational requirements which mean that there are limited locations for a landfill within the Auckland region. These are most likely to include being located in natural valleys that can thereby create a separation between nearest neighbours and typical landfill-related effects. Natural valley systems in Auckland which are sufficiently large to accommodate a regional landfill, will almost inevitably contain streams. As a result, there is no practicable alternative to reclamation of a length of stream within the landfill footprint. The precinct provisions reflect this reality.
- **Freshwater systems** (B7.3.1 (1), B7.3.1 (2), B7.3.1 (3), B7.3.2 (1), B7.3.2 (4), B7.3.2 (5), B7.3.2 (6), E3.2(1), E3.2(2), E3.2(3), E3.2(4), E3.2(5), E3.2(6), E3.3(1), E3.3(2), E3.3(3), E3.3(4), E3.3(7), E3.3(10), E3.3(11), E3.3(12), E3.3(13), E3.3(15), E3.3(16)) - the AUP has a clear directive to enhance degraded freshwater systems, minimise loss of freshwater systems and avoid, remedy or mitigate adverse effects on freshwater systems. These directives flow from the RPS down through the regional plan provisions. While there is a strong theme on protection of fresh water – the provisions also run in partnership with those relating to infrastructure, which enable the development and operation of infrastructure, despite the sometimes unavoidable adverse effects of it on the environment – including freshwater systems.

The nature of a landfill development within the Auckland Region will inevitably involve a large scale project within a valley system, resulting in considerable changes to the existing environmental conditions. This is similar to any large infrastructure development. The AUP has recognised this across the Plan's provisions. Throughout the AUP, in both higher and lower level provisions, there are objectives and policies which recognise and provide for infrastructure development, including recognition that this may result in unavoidable adverse effects on natural values.

Consequently, whilst individual objectives and policies within the AUP require avoidance and protection of freshwater systems, these need to be read in their context of the wider AUP. The proposed precinct provisions are generally consistent with and supportive of the key relevant objectives and policies for infrastructure and recognise the particular locational requirements of a landfill. The precinct provisions direct that adverse effects should be avoided, remedied and mitigated wherever possible, while recognising that adverse effects on freshwater systems from landfill development in the precinct may be inevitable, due to the nature, scale and locational requirements of landfill development.

We consider that the precinct is consistent with the Auckland-wide provisions, whilst providing some additional precinct-specific considerations for future resource consent applications. The objectives and policies in the precinct are generally to be read alongside the Auckland-wide provisions, rather than replacing them.

Overall, we consider that the proposed objectives and policies of the proposed precinct are generally consistent with the overall direction of the AUP and are appropriate for achieving the broader objectives of the AUP.

The costs, benefits, efficiency and effectiveness of the proposed provisions of the precinct are set out in Table 6.2 below. To avoid unnecessary duplication the provisions themselves are not repeated here, and are contained in Appendix A.

Table 6.2: Analysis of the proposed provisions

Plan change provision	Costs	Benefits	Efficiency and effectiveness
Policies	<ul style="list-style-type: none"> The costs of having these policies are considered to be negligible. Environmental costs from policy 4, which provides for work within freshwater systems including reclamation and culverts. Social costs to the local community from potential discharges from the activity. 	<ul style="list-style-type: none"> The proposed policies will provide protection of key matters, such as cultural values, in future consent processes. The proposed policies are enabling of landfill development (whilst requiring appropriate management of effects). 	<ul style="list-style-type: none"> The application of the policies, rules and standards through the Precinct will be consistent with the proposed objectives for the precinct as well as the wider AUP, and are therefore considered to be efficient. The policies will give direct effect to the RPS provisions around enablement of infrastructure. A policy framework that supports the growth of Auckland is envisaged by The Auckland Plan and the AUP.
Rules	<ul style="list-style-type: none"> Costs of the proposed rules include the consent application costs, processing and monitoring costs that will be incurred by the consent applicant and Council. 	<ul style="list-style-type: none"> Enabling landfill development on the site by changing from non-complying to discretionary, which is a more supportive planning framework. Benefit of additional certainty around relevant matters to be considered for re-consenting of discharges. Benefit of ensuring all future applications under the precinct are subject to a thorough consent process, to allow a merits assessment of the application, and providing for effects to be avoided, remedied and mitigated. 	<ul style="list-style-type: none"> The suite of rules are considered to be efficient and effective – by making a blanket change to the activity status from non-complying to discretionary, it provides a certain and simple consenting framework. The restricted discretionary status (and associated assessment criteria) for re-consenting discharges is considered to be efficient and effective, as it will target future re-consenting applications to the appropriate matters for consideration.

Plan change provision	Costs	Benefits	Efficiency and effectiveness
Standards	<ul style="list-style-type: none"> Costs of these standards may include costs associated with demonstrating the proposed application will meet the standard, which may include odour dispersion modelling. Community may consider that the standards do not go far enough to manage potential environmental, social and cultural effects. 	<ul style="list-style-type: none"> These set minimum standards, with a benefit of providing certainty around the likely future use of the site, and the scope of future consent applications. 	<ul style="list-style-type: none"> The standards are expected to be effective in incentivising future consent applications to achieve the standards, to avoid being classified as a non-complying activity. The standards are considered to be efficient as they focus on a short list of key issues, with other matters to be assessed on a case-by-case basis through the resource consent process.

6.2.3 Summary of reasons for choosing the provisions

Appendix B contains an analysis of the options against the relevant matters in Section 32 including the efficiency and effectiveness of the provisions, and their costs and benefits.

In summary, the reasons for adopting a precinct include:

- Retaining the status quo or making changes to the rural zone would not achieve one of the reasons for the PPC, being the ability to record and identify the use of the site on the planning maps. Therefore these options were not considered to be appropriate.
- Either a special purpose zone or a precinct would achieve the purpose of recording the site's use in the planning maps, however, it is not considered appropriate to create a new zone for one site, as this would be inefficient and inconsistent with the structure of the AUP. A zoning might also suggest that other sites within the Auckland Region could easily be "zoned" for landfill purposes, whereas WMNZ has spent a long time (nearly 10 years) in identifying an appropriate site and undertaking the necessary technical assessments to determine its appropriateness
- Precincts allow for the use of sub-precincts, which allows the proposed area for waste placement to be delineated, which will better contribute to avoiding and mitigating effects, making a precinct more appropriate than a Special Purpose Zone, which would not have a similar mechanism. Further, as noted above, the proposed precinct site has been subject to extensive investigation to determine its appropriateness for landfill development.
- A precinct for the site is consistent with the structure of the AUP, which uses precincts to recognise site specific constraints or opportunities while maintaining the underlying zoning. Other infrastructure activities, such as airports, the port and defence force bases have been recognised and shown on the planning maps using precincts

Overall, a precinct is considered to be the most appropriate option for achieving the objectives of the PPC and more broadly the objective and policies of the Unitary Plan.

In summary, the provisions of the precinct have been selected for the following reasons:

- The proposed provisions will achieve the purpose of the PPC;
- The provisions are consistent with the objectives of the PPC and with the objectives of the AUP; and
- The provisions are considered to be efficient and effective, and the benefits are expected to outweigh the costs.

Consequently, the proposed provisions are considered to be the most appropriate for achieving the objectives of the PPC and the AUP.

7 Conclusion

WMNZ seeks a PPC to introduce a precinct into the AUP to recognise and provide for landfill development on the site. This is to record the potential future presence of a landfill on the site in the Region's planning maps, to appropriately recognise landfills as infrastructure within the AUP, and to enable efficient operation of a future landfill at the site throughout its operating life.

This report has assessed the PPC against the requirements of Schedule 1 and s32 of the RMA, and concludes:

- The proposed precinct will generate positive effects, and has no level of adverse effects which would make the site unsuitable for consideration for landfill construction and operation.
- The precinct and sub-precinct provisions will ensure future development on the Precinct gives effect to and is consistent with the AUP Regional Policy Statement, the regional and district plan objectives and policies in the AUP, as well as the Auckland Plan.
- The proposed precinct, including the objectives, are consistent with the purpose of the RMA. The proposed objectives of the PPC are considered to be the most appropriate and effective means of achieving the purpose of the RMA, compared to the current zone or practicable alternative options.
- The proposed precinct is considered to be the most appropriate option for achieving the objectives of the PPC and more broadly the objective and policies of the Unitary Plan. The PPC will efficiently and effectively achieve the overarching objectives of the AUP, in particular the themes of enabling infrastructure whilst ensuring effects of future activities within the precinct are appropriately assessed and managed.

8 Applicability

This report has been prepared for the exclusive use of our client Waste Management NZ Ltd, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

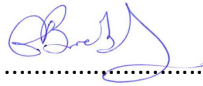
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Appendix A: Proposed plan change

Auckland Regional Landfill Precinct (I617)

I617.1 Precinct Description

The precinct applies to the Auckland Regional Landfill and its surrounds. Its purpose is to recognise the existence of, and enable the efficient construction and operation of the landfill and the associated land and activities in recognition of its role in providing the long term, safe disposal of solid waste from Auckland and surrounding regions, and for enabling renewable energy generation from the biomass within the landfill.

The Auckland Regional Landfill Precinct has two sub-precincts: Sub-precinct A, which identifies the area where waste will be placed; and Sub-precinct B, which identifies an area of the precinct where works within the Natural Stream Management Area are subject to a different activity status than the overlay. The remaining land within the precinct will be used for a range of activities associated with the landfill operations and energy generation. These associated activities include (but are not limited to) bin exchange area, stormwater treatment, access roads, soil stockpiles, gas and leachate collection and treatment, workshops, office facilities, and clay borrow.

The precinct includes objectives and policies which allow for consideration of biodiversity offsets and ecological compensation for unavoidable impacts on natural resources arising from development of a landfill within the precinct. The matters in objective 4 and policies 5 and 6 provide direction on offset and compensation for activities within the precinct which have unavoidable impacts on freshwater systems, providing direction on how the provisions of E3, E1, E15 and Appendix 8 of the Auckland Unitary Plan are to be applied, which address the circumstances in which residual adverse effects on natural resources that cannot be avoided, remedied or mitigated may be offset and compensated.

The land and the surrounding waterways, particularly the Hōteu River, have significant value to mana whenua in terms of historical, spiritual and cultural associations. Areas within and adjacent to the Auckland Regional Landfill Precinct have significant ecological values (e.g. the Sunnybrook Reserve). The objectives and policies of the Precinct requires a full assessment of potential effects and a requirement to avoid, remedy, mitigate, or offset/compensate adverse effects, including on ecological/freshwater and mana whenua values, that may be created by these activities to the extent practicable.

The underlying zoning of land within this precinct is Rural – Rural Production zone.

I617.2 Objectives [rp/dp]

1. The development and continued operation of the Auckland Regional Landfill is enabled, recognising its regional significance as essential infrastructure, and recognising the benefits of biomass being used for renewable energy generation.
2. Human health is protected from adverse effects of operational or closed landfills.
3. The Auckland Regional Landfill is designed and operated so that the adverse effects of discharges to land and water from the landfill are avoided, remedied or mitigated.
4. Adverse effects on rivers, lakes, streams and wetlands arising from the development and continued operation of the Auckland Regional Landfill are avoided, remedied or mitigated, and significant residual adverse effects are, to the extent reasonably practicable, and as

offered by the applicant, offset, or compensated where this will promote the purpose of the Resource Management Act 1991.

5. Effects on the ecological and mana whenua values from works within any Significant Ecological Area overlay or Wetland Management Area overlay areas are avoided, and effects on the ecological and mana whenua values from works within any Natural Stream Management Area overlay are avoided where practicable or are otherwise minimised.
6. The mauri of freshwater and indigenous biodiversity within those areas of the precinct not required for operations associated with the development and continued operation of the Auckland Regional Landfill is maintained and consistent with being enhanced over time.

The overlay, Auckland-wide and zone objectives apply in this precinct in addition to those specified above, except where there is a conflict, in which case these objectives take precedence.

1617.3 Policies [rp/dp]

1. Enable the development and continued operation of the Auckland Regional Landfill, and the associated renewable energy generation.
2. Require that any assessment of environmental effects for an activity that may affect mana whenua values includes an appropriate assessment of adverse effects on those values, and how those effects may be avoided, remedied or mitigated, including through making provision for mana whenua to exercise kaitiakitanga and the adoption of the Auckland Unitary Plan's Accidental Discovery Rule (E11.6.1).
3. Discharges of contaminants into water, land and air from the Auckland Regional Landfill's construction and operations shall avoid where practicable, and otherwise minimise:
 - a. adverse effects on the quality of freshwater, including from contamination and sediment;
 - b. adverse effects from contaminants, and the potential for these to enter freshwater from both point and non-point sources;
 - c. adverse effects on mana whenua values associated with coastal water, freshwater and geothermal water, including wāhi tapu, wāhi taonga and mahinga kai;
 - d. adverse effects on the water quality of catchments and aquifers that provide water for domestic and municipal supply; and
 - e. adverse effects on the quality of air, including from the discharge of contaminants and odour;

including through the adoption of the best practicable option for the treatment and discharge of stormwater, the use of industry best practice lining system, adoption of appropriate waste acceptance criteria informed by up-to-date knowledge of contaminants of concern, and the provision of an appropriate buffer within the precinct

4. Subject to policy 5, provide for works within freshwater systems in order to provide for the development and operation of the Auckland Regional Landfill, including the reclamation of streams within Sub-Precinct A, culverts or bridges required to access the landfill.
5. Subject to policy 6, require adverse effects from the Auckland Regional Landfill's construction and operation on freshwater systems to be avoided, remedied or mitigated generally and to the extent practicable, and encourage in particular the use of offsetting or

compensation to manage significant residual adverse effects of unavoidable reclamation of stream beds and associated loss of freshwater systems.

6. Where effects cannot be avoided, remedied or mitigated, provide for offsetting or compensation, thereby enabling the Auckland Regional Landfill as infrastructure, while recognising that:
 - a. not all significant residual adverse effects will be able to be fully offset or compensated, however a ratio of at least 1:1 is expected;
 - b. any offset or compensation package may be staged over the long term and sites should be identified in the following order of preference – within the precinct, within the Hōteu River catchment, within the Kaipara Harbour catchment, and within the Auckland Region.

The underlying zone, Auckland-wide and overlay policies apply in this precinct in addition to those specified above, except where there is a conflict, in which case these policies take precedence. In particular, policy I617.3(3) is intended to take precedence over E13.3(4).

I617.4 Activity Table

Table I617.4.1 Activity table specifies the activity status of land use and development activities in the Auckland Regional Landfill Precinct pursuant to sections 9 and 11, 13, 14 and 15 of the Resource Management Act 1991. Any reference to an activity includes its construction, operation and maintenance. The provisions in any relevant overlays, Auckland-wide provisions and the zones apply in this precinct unless otherwise specified below¹.

Table I617.4.1 Activity Table (rp/dp)

Activity		Activity status
New landfills		
(A1)	Landfill in Sub-precinct A	D
(A2)	Discharges to air from landfills in Sub-Precinct A	D
(A3)	Discharges to land and water from landfills in Sub-precinct A that are otherwise categorised as non-complying	D
(A4)	Landfill outside of Sub-precinct A	NC
(A5)	Discharges to air, land and water from landfills outside of Sub-Precinct A	NC
Existing landfills		
(A6)	Discharges to air from existing landfills in Sub-Precinct A	RD
(A7)	Discharges to land and water from existing landfills in Sub-precinct A unless a more lenient activity status applies	RD
Activities in lakes, rivers, streams and wetlands		
(A8)	Reclamation, drainage, diversion or disturbance of any lakes, rivers,	D

¹ Specifically, the rules in this table are intended to replace E3.4.1 (A49) E13.4.1 (A9), E14.4.1 (A160), and H19.8.1 (A67), and are intended to apply instead of any plan rules which classify landfills or associated activities as non-complying.

Activity		Activity status
	streams (including intermittent streams) and wetlands outside overlays that are otherwise categorised as non-complying.	
(A9)	Reclamation, drainage, diversion or disturbance of any lakes, rivers, streams (including intermittent streams) and wetlands inside Natural Stream Management Area and Significant Ecological Area overlays unless a more lenient activity status applies pursuant to the overlay rule.	NC
Renewable energy		
(A10)	Energy generation from waste biomass, that is otherwise categorised as non-complying	D
(A11)	Discharges to air, land or water from energy generation from waste biomass, that are otherwise categorised as non-complying	D
General		
(A12)	Office or workshop associated with landfill	D
(A13)	Bin exchange area associated with landfill	D
(A14)	Except for (A4), (A5) and (A9) above, any activity classified as a non-complying activity elsewhere in the Unitary Plan associated with any landfill activity	D
(A15)	Any landfill activity that does not comply with the restricted discretionary or discretionary activity standards in I617.6	NC

Table I617.4.2 Activity Table – Sub-precinct B

Table I617.4.2 specifies the activity status of activities in, on, under, or over the bed of lakes, rivers, streams and wetlands within Sub-precinct B, pursuant to sections 13 and 14 of the Resource Management Act 1991. This Activity Table applies instead of any other rule in the Unitary Plan for the purposes of the activities listed.²

Activity		Activity status
(A1)	Works within lakes, rivers, streams (including intermittent streams) and wetlands within Sub-precinct B, including reclamation, drainage, diversion or disturbance of	D

² Specifically, the rules in this table are intended to replace E3.4.1 (A33) and E3.4.1 (A49) within the sub-precinct.

Activity		Activity status
	any watercourses, or construction of structures unless a more lenient activity status applies.	

I617.5. Notification

1. Any application for resource consent for an activity listed in Table I617.4.1 Activity table above will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991, except where I617.5(2) applies.
2. Any application under Rule I617.4.1 (A1), (A2), (A4), (A5) or (A15) will be publicly notified.
3. When deciding who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the Council will give specific consideration to those persons listed in Rule C1.13(4).

I617.6 Standards

I617.6(1) Restricted Discretionary Standards

Activities listed as restricted discretionary activities in Table I617.4.1 must comply with the following restricted discretionary activity standards.

1. The discharge must be associated with an existing, legally authorised landfill or ancillary activity.
2. Any placement of waste shall only occur within Sub-Precinct A, shown on Precinct Plan 1.
3. A lining system must be installed prior to waste being placed within any area of Sub-Precinct A. The proposed lining system for the landfill must be one of the following types:
 - a. Type 1 lining system (Leachate drainage material, with underlying cushion geotextile to protect the geomembrane, 1.5 mm HDPE geomembrane, and 600 mm compacted clay with a coefficient of permeability $k < 1 \times 10^{-9}$ m/s); or
 - b. Type 2 lining system (Leachate drainage material, with underlying cushion geotextile to protect the geomembrane, 1.5 mm HDPE geomembrane, Geosynthetic clay liner (GCL), or 600 mm compacted clay with a coefficient of permeability $k < 1 \times 10^{-8}$ m/s); and
 - c. Any other lining system that provides equal or better protection than a Type 1 or Type 2 lining system described above.
4. There shall be no offensive or objectionable odour at the Precinct boundary caused by the landfilling operation, in the opinion of a suitably qualified enforcement officer when assessed in accordance with the 'Good Practice Guide for Assessing and Managing Odour', (Ministry for the Environment, 2016).
5. No works, other than ecological restoration or enhancement works, shall occur within any Wetland Management Area overlay, or within any Significant Ecological Area overlay, or within any Outstanding Natural Landscape overlay, or in any Natural Stream Management Area overlay (except Sub-precinct B).
6. The maximum airspace volume of the landfill must not exceed 28.5 Mm³.

I617.6(2) Discretionary Standards

Activities listed as discretionary activities in Table I617.4.1 must comply with the following discretionary activity standards.

1. Any placement of waste shall only occur within Sub-Precinct A, shown on Precinct Plan 1.
2. A lining system must be installed prior to waste being placed within any area of Sub-Precinct A. The proposed lining system for the landfill must be one of the following types:
 - a. Type 1 lining system (Leachate drainage material, with underlying cushion geotextile to protect the geomembrane, 1.5 mm HDPE geomembrane, and 600 mm compacted clay with a coefficient of permeability $k < 1 \times 10^{-9}$ m/s); or
 - b. Type 2 lining system (Leachate drainage material, with underlying cushion geotextile to protect the geomembrane, 1.5 mm HDPE geomembrane, Geosynthetic clay liner (GCL), or 600 mm compacted clay with a coefficient of permeability $k < 1 \times 10^{-8}$ m/s); and
 - c. Any other lining system that provides equal or better protection than a Type 1 or Type 2 lining system described above.
3. There shall be no offensive or objectionable odour at the Precinct boundary caused by the landfilling operation, in the opinion of a suitably qualified enforcement officer when assessed in accordance with the *'Good Practice Guide for Assessing and Managing Odour'*, (Ministry for the Environment, 2016).
4. No works, other than ecological restoration or enhancement works, shall occur within any Wetland Management Area overlay, or within any Significant Ecological Area overlay, or in any Natural Stream Management Area overlay (except Sub-precinct B).
5. The maximum airspace volume of the landfill must not exceed 28.5 Mm³.

I617.7. Assessment – controlled activities

There are no controlled activities in this precinct.

I617.8. Assessment – restricted discretionary activities

I617.8.1 Matters of discretion

1. For discharge of contaminants into air from all restricted discretionary activities (A6):
 - a. the matters in Policy E14.3(1); and
 - b. location of site and activity; and
 - c. site and plant layout.
 - d. quantity, quality and type of discharge, including biological contaminants, and any effects arising from that discharge;
 - e. sensitivity of receiving environment and separation distances between the activity and any sensitive land uses;
 - f. protocols for waste acceptance;

- g. odour, dust, visible emissions and hazardous air pollutant mitigation measures;
 - h. monitoring requirements and management plans; and
 - i. Closure and after-care plans (if the landfill is likely to close within the duration of the consent).
2. For other discharges from all restricted discretionary activities (A7):
- a. the quality and quantity of any discharge including methods for the treatment and disposal of contaminants;
 - b. the method of discharge and adverse effects arising from the method chosen;
 - c. the best practicable options for reducing adverse effects;
 - d. the location of any discharge point;
 - e. the rate and frequency of any discharge;
 - f. monitoring requirements, management plans and consent duration;
 - g. the effects on mana whenua values; and
 - h. closure and after-care plans (if the landfill is likely to close within the duration of the consent).

1617.8.2 Assessment criteria

Discharges to air from legally established landfills

The Council will consider the relevant assessment criteria below for restricted discretionary activities:

1. The degree to which Auckland Ambient Air Quality Targets are likely to be met where people are likely to be exposed to the specified contaminants for the relevant averaging period.
2. Whether the amount of separation between the activity discharging contaminants into air and existing or potential activities sensitive to the air discharges is sufficient to mitigate adverse effects on the environment, health and amenity
3. The extent to which adverse effects are avoided, remedied or mitigated including appropriate emissions control technology and use of management practices.
4. Where applicable, the degree to which offsetting can remedy or mitigate adverse effects considering the proximity of the offset to where the effects of the discharge occur and the effective duration of the offset
5. Whether there are practicable location and method options that cause less adverse effects and can still achieve the applicant's objectives
6. The extent to which the odour and dust level meet the expectations for the Medium air quality – dust and odour area (Rural).
7. Whether the assessment methods, including monitoring and modelling are appropriate to the scale of the discharge and any potential adverse effects
8. Whether discharge into air are minimised as far as practicable, where appropriate through
 - a. use of best practicable option emissions control and management practices: or
 - b. minimisation of fugitive emissions:
9. the adequacy of the site management plan including:
 - a. operation of the site
 - b. placement and compaction of waste material
 - c. daily operating procedures
 - d. waste acceptance controls and monitoring;
 - e. response to natural hazards and unexpected discharges;

- f. Vermin and bird management;
 - g. load inspection records; and
 - h. monitoring, testing and sampling documentation
10. the adequacy of the site aftercare plan including:
- a. aftercare activities to address the risk posed by the contaminants to the environment; and
 - b. timing and standard of aftercare activities

Discharges to land and water from legally established landfills

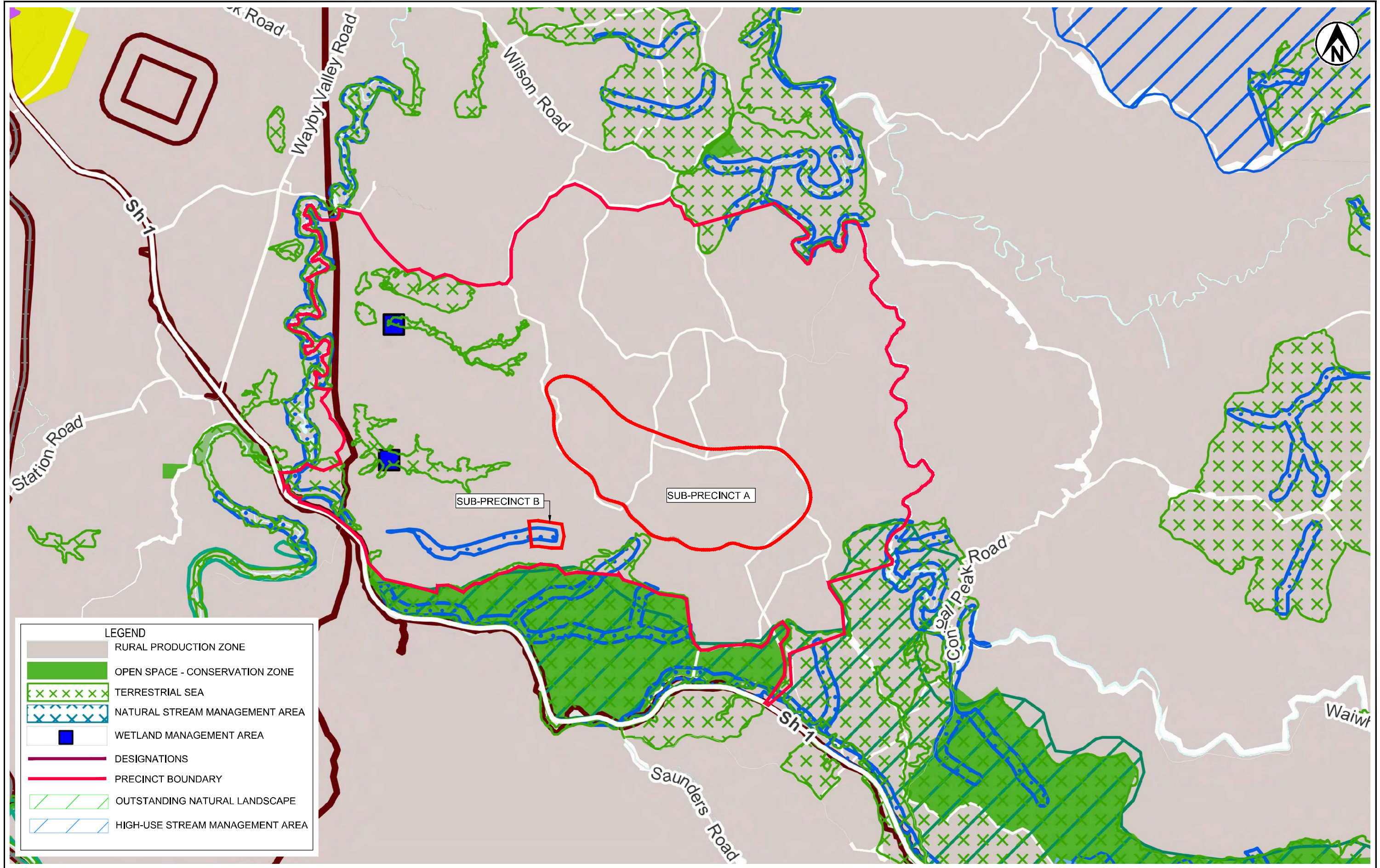
The Council will consider the relevant assessment criteria below for restricted discretionary activities:

1. potential adverse effects (including cumulative effects) are appropriately minimised or mitigated, taking into consideration all of the following:
 - a. the nature of the contaminants and associated discharge to the receiving environment;
 - b. the sensitivity of the receiving environment, and its susceptibility to the adverse effects of the contaminants;
 - c. the extent to which contaminants from the site contribute to incremental and cumulative adverse effects on receiving environments including adverse effects on biodiversity, community and mana whenua uses and values
 - d. whether it is practicable to reduce existing adverse effects including site and operational constraints;
 - e. the adequacy of the site management plan including:
 - I. operation of the site;
 - II. placement and compaction of waste material;
 - III. daily operating procedures;
 - IV. waste acceptance controls and monitoring;
 - V. response to natural hazards and unexpected discharges;
 - VI. Vermin and bird management;
 - VII. load inspection records; and
 - VIII. monitoring, testing and sampling documentation
 - f. the adequacy of the site aftercare plan including:
 - I. aftercare activities to address the risk posed by the contaminants to the environment; and
 - II. timing and standard to aftercare activities

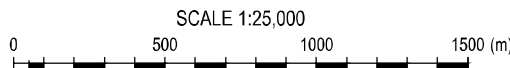
I617.9. Special information requirements

There are no special information requirements in this precinct.

I617.10. Precinct plan



LEGEND	
	RURAL PRODUCTION ZONE
	OPEN SPACE - CONSERVATION ZONE
	TERRESTRIAL SEA
	NATURAL STREAM MANAGEMENT AREA
	WETLAND MANAGEMENT AREA
	DESIGNATIONS
	PRECINCT BOUNDARY
	OUTSTANDING NATURAL LANDSCAPE
	HIGH-USE STREAM MANAGEMENT AREA



Unitary Plan sourced from Auckland Council GeoMaps

PROJECT No. 1005069.1200			CLIENT WASTE MANAGEMENT NZ LTD
DESIGNED	RJB	Jun.19	PROJECT AUCKLAND REGIONAL LANDFILL
DRAWN	LIWA	Nov.19	TITLE PRIVATE PLAN CHANGE
CHECKED	RJB	Nov. 19	PRECINCT PLAN 1
APPROVED	DATE	SCALE (A3) 1:25,000	FIG No. FIGURE 1
			REV 3

Appendix B: List of technical reports attached to the resource consent application

Volume 2A	Geotechnical Factual Report	Technical Report A
	Geotechnical Interpretive Report	Technical Report B
	Seismic Hazard Assessment	Technical Report C
	Air Quality Assessment	Technical Report D
	Hydrogeological Assessment	Technical Report E
	Water Quality Baseline Monitoring Report	Technical Report F
	Assessment of Aquatic and Terrestrial Ecological Values and Effects	Technical Report G
	Landscape and Visual Assessment	Technical Report H
	Assessment of Economic Effects	Technical Report I
	Cultural Values Assessment	Technical Report J
	Archaeological Assessment	Technical Report K
Volume 2B	Assessment of Environmental Noise Effects	Technical Report L
	Integrated Transport Assessment	Technical Report M
	Engineering Report	Technical Report N
	Waste Acceptance Criteria	Technical Report O
	Stormwater and Industrial and Trade Activity Report	Technical Report P
	Draft Landfill Management Plan Contents Page	Technical Report Q
	Sediment and Erosion Control Assessment	Technical Report R
	Risk Management Assessment	Technical Report S
	Health Risk Assessment	Technical Report T

Appendix C: Section 32 evaluation of alternative options

Appendix C: s32 analysis of alternative options

Section 32(1)(b) of the RMA requires an evaluation report to examine whether the provisions in the proposed Plan Change are the most appropriate way to achieve its objectives. The proposed PPC includes the following 6 objectives.

- 1 *The development and continued operation of the Auckland Regional Landfill is enabled, recognising its regional significance as essential infrastructure, and recognising the benefits of biomass being used for renewable energy generation.*
- 2 *Human health is protected from adverse effects of operational or closed landfills.*
- 3 *The Auckland Regional Landfill is designed and operated so that the adverse effects of discharges to land and water from the landfill are avoided, remedied or mitigated.*
- 4 *Adverse effects on rivers, lakes, streams and wetlands arising from the development and continued operation of the Auckland Regional Landfill are avoided, remedied or mitigated, and significant residual adverse effects are, to the extent reasonably practicable, and as offered by the applicant, offset, or compensated where this will promote the purpose of the Resource Management Act 1991.*
- 5 *Effects on the ecological and mana whenua values from works within any Significant Ecological Area overlay or Wetland Management Area overlay areas are avoided, and effects on the ecological and mana whenua values from works within any Natural Stream Management Area overlay are avoided where practicable or are otherwise minimised.*
- 6 *The mauri of freshwater and indigenous biodiversity within those areas of the precinct not required for operations associated with the development and continued operation of the Auckland Regional Landfill is maintained and consistent with being enhanced over time.*

Section 32(1)(b) requires this assessment to:

- identify other reasonably practicable options for achieving the objectives; and
- assess the efficiency and effectiveness of the provisions in achieving the objectives.

In particular, Section 32(2) requires an assessment under Section 32(1)(b) to identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—

- i economic growth that are anticipated to be provided or reduced; and
- ii employment that are anticipated to be provided or reduced

The below table identifies other reasonably practicable options for achieving the objectives, and assesses the efficiency, effectiveness, benefits and costs of these options. As with the assessment of effects, the scope of this assessment is limited to the actual or potential costs and benefits arising from the PPC. In this case, all of the options considered for the PPC would not authorise any works, in the sense of making any activities permitted, and the only change proposed under any option is to re-classify certain activities from non-complying, to either discretionary or restricted discretionary, and to insert specific objectives and policies relating to activities proposed. Consequently, an assessment of the costs and benefits of a landfill itself is not provided here.

	Proposed Option: Establishment of a Precinct and Sub-Precinct	Option 1 – No Change	Option 2 – Special Purpose Zone	Option 3 – Changes to the Rural Zone and relevant provisions of the plan
Option description	<ul style="list-style-type: none"> • This is the proposed Plan Change request. It would establish a precinct at the site, which includes specific objectives, policies and rules to be applied to the land identified, whilst retaining the underlying zoning. 	<ul style="list-style-type: none"> • This option would result in no change, with the site retaining the existing zoning - Rural Production Zone. The establishment of a landfill on the WMNZ landholdings would remain a non-complying activity. 	<ul style="list-style-type: none"> • This option would establish a new Special Purpose Zone in order to recognise and provide for waste activities that are involved in the construction and operation of a landfill. The zone would be included within the Unitary Plan and could be applied to this site but also future sites through a plan change process. 	<ul style="list-style-type: none"> • This option would retain the existing zoning, and would involve changes to objectives, policies and rules across the AUP, including changing the activity status of landfills within the Rural Production Zone.
Efficiency and effectiveness (whether the provisions are the most efficient and effective means of achieving the objectives of the proposal (s32(1)(b))	<ul style="list-style-type: none"> • The proposed precinct provisions, provide recognition of the site and any future landfill developed on the site with specific notation and therefore recognition on the planning maps as regional infrastructure which gives effect to proposed objective 1. • It sets aside an area for waste infrastructure, which is separated from sensitive uses, and where the very large buffer areas are within WMNZ's ownership. This will avoid reverse 	<ul style="list-style-type: none"> • The existing provisions contained under the Unitary Plan do not provide any recognition for a landfill at the proposed site. While landfills are recognised as infrastructure, there is no other way of identifying them on the planning maps or within the plan in relation to their location. Therefore it would not be the most efficient way of achieving objective 1. • This option would also not address the contradiction in the AUP of how landfills as 	<ul style="list-style-type: none"> • The establishment of a Special Purpose Landfill Zone would be an efficient and effective way of achieving the objectives of the proposal as it would also identify and recognise the site as a location for the establishment and operation of landfill infrastructure by marking the site on the planning maps and enabling the inclusion of specific provisions to support the operation of the zone. • In order to establish this zone, it would result in the formulation of an entire set of provisions to be 	<ul style="list-style-type: none"> • Not all rural areas might be appropriate for a landfill development. Therefore making changes to the overall rural zone is not an efficient or effective way of achieving the objectives, as it could result in applications for landfills in areas that are not suitable in regards to geology, siting, buffer and compatible uses. • It would require changes across a number of sections of the AUP, which could cause confusion

	Proposed Option: Establishment of a Precinct and Sub-Precinct	Option 1 – No Change	Option 2 – Special Purpose Zone	Option 3 – Changes to the Rural Zone and relevant provisions of the plan
	<p>sensitivity effects, and will give effect to objective 3. This will also help to manage potential effects on human health through ensuring incompatible uses are separated, while including provisions that seek to restrict the development of any future landfill to meet industry standards and best landfill practice which manage effects on health which gives effect to proposed objective 2.</p> <ul style="list-style-type: none"> • Future landfill development requires consent as a discretionary activity under the proposed provisions. This discretionary status enables a full assessment of any future development and an opportunity to avoid, remedy or mitigate adverse effects which gives effect to proposed objective 3. Any consenting of existing lawful discharges are classified as restricted discretionary activities with specific matters of discretion and assessment criteria, enabling a very focussed and efficient consenting process for these activities. • Making the activity status discretionary rather than non-complying is a more efficient approach to enabling infrastructure than the status quo. • The proposed precinct provisions limits development within certain areas and requires discretionary activity consent for the development of new activities. This provides the opportunity to require the enhancement or protection of areas of biodiversity of freshwater. This gives effect to objective 6. 	<p>infrastructure are provided for in the rules (non-complying activity status) compared to the objectives and policies (which are generally enabling of infrastructure).</p>	<p>drafted that would need to be able to be universal in the instance that they could be applied to other areas within Auckland. This would be difficult as the site has been determined as being appropriate for landfill infrastructure based on technical assessments. These are specific to the subject site and a site specific precinct rather than a broader zone.</p> <ul style="list-style-type: none"> • Future landfill development requires consent as a discretionary activity under the proposed provisions. This discretionary status enables a full assessment of any future development and an opportunity to avoid, remedy or mitigate adverse effects which gives effect to proposed objective 3. Any consenting of existing lawful discharges are classified as restricted discretionary activities with specific matters of discretion and assessment criteria, enabling a very focussed and efficient consenting process for these activities. • Making the activity status discretionary rather than non-complying is a more efficient approach to enabling infrastructure than the status quo. 	<p>and result in changes for other activities that are not appropriate.</p> <ul style="list-style-type: none"> • Future landfill development requires consent as a discretionary activity under the proposed provisions. This discretionary status enables a full assessment of any future development and an opportunity to avoid, remedy or mitigate adverse effects which gives effect to proposed objective 3. Any consenting of existing lawful discharges are classified as restricted discretionary activities with specific matters of discretion and assessment criteria, enabling a very focussed and efficient consenting process for these activities. • Making the activity status discretionary rather than non-complying is a more efficient approach to enabling infrastructure than the status quo. • This option would not achieve one of the reasons for the plan change, being showing the landfill on the planning maps to manage reverse sensitivity.
<p>Benefits <i>Assessment of benefits of the anticipated environmental, economic, social, and cultural effects of the provisions, including economic growth and employment (s32(2)(a) and (b)).</i></p>	<ul style="list-style-type: none"> • The change to discretionary is enabling of infrastructure, which improves the likelihood that consents will be obtained over a non-complying activity, which is beneficial for providing resilient infrastructure to the Auckland Region. • The sub-precinct option means more certainty can be achieved regarding where particular activities will occur within the site, compared to the other options. • The establishment and operation of essential infrastructure results in important positive benefits to the safe and efficient functioning of the Auckland region. Municipal landfills form part of this essential infrastructure as they provide a necessary service to businesses and residents, by providing for the safe disposal of residual waste. • The provisions specifically restrict development within identified SEAs, ONLs and 	<ul style="list-style-type: none"> • Ultimately the project will result in some adverse effects due to the location, size and nature of the activity. Some of these adverse effects are ones that ordinarily, in relation to a project which is not infrastructure, may be deemed to be unacceptable and contrary to objectives and policies. However, in the case of the proposed landfill, and its role as regional infrastructure, it is recognised that some effects that would otherwise be inappropriate may be acceptable in the context of the wider benefit that the project provides 	<ul style="list-style-type: none"> • The change to discretionary is enabling of infrastructure, which improves the likelihood that consents will be obtained over a non-complying activity, which is beneficial for providing resilient infrastructure to the Auckland Region. • The establishment and operation of essential infrastructure results in important positive benefits to the safe and efficient functioning of the Auckland region. Municipal landfills form part of this essential infrastructure as they provide a necessary service to businesses and residents, by providing for the safe disposal of residual waste. 	<ul style="list-style-type: none"> • By not being tied to a particular landholding, there would be a benefit for future applicants to explore other sites if unsuccessful in obtaining consent for the proposed site.

	Proposed Option: Establishment of a Precinct and Sub-Precinct	Option 1 – No Change	Option 2 – Special Purpose Zone	Option 3 – Changes to the Rural Zone and relevant provisions of the plan
	<p>WMAs with proposed Sub Precinct A which is identified for landfill development outside of any identified SEAs and WMAs. This gives effect to objectives 5 and 6. A similar method is not available under the other options</p> <ul style="list-style-type: none"> • Identification of a particular site which is suitable for landfill development is beneficial, providing for the development of one large centralised facility, rather than a potential proliferation of smaller landfills (economies of scale). 			
<p>Costs</p> <p><i>Assessment of costs of the anticipated environmental, economic, social, and cultural effects of the provisions, including economic growth and employment (s32(2)(a) and (b))</i></p>	<ul style="list-style-type: none"> • Applications will still be subject to a full assessment so costs to the applicant, council and participants in the consent process are similar to the status quo. 	<ul style="list-style-type: none"> • This is a more challenging path for consenting a landfill on the landholdings, as the activities are a non-complying activity overall. • As such, a potential cost is reduced ability to consent and operate a landfill in the Auckland Region, which could reduce economic growth and employment, as well as increased environmental effects from increased trucking distances if Auckland’s waste must be taken out of the region. • The design, consenting and development of large scale infrastructure is not a straight forward exercise, and often takes significant time. At the same time, ensuring the seamless provision of infrastructure is vital for the safe functioning of the region and society. • By not showing the landfill on the planning maps, there are potential costs to future landowners and users in the area, as well as potential reverse sensitivity effects, as there is less transparency in the planning maps to enable informed future land-use decisions in the area. 	<ul style="list-style-type: none"> • Applications will still be subject to a full assessment so costs to the applicant, council and participants in the consent process are similar to the status quo. • A SPZ does not provide for the use of sub-zones, so this approach would provide less certainty about the location of activities within the zone, which could result in worse outcomes compared to the precinct. 	<ul style="list-style-type: none"> • Applications will still be subject to a full assessment so costs to the applicant, council and participants in the consent process are similar to the status quo • A potential cost could be that a less appropriate site could be the subject of an application under these rules, as the changes would apply across the Rural Production Zone. • More potential for unintended consequences by making changes across the plan, rather than within a discrete SPZ or precinct. • By not showing the landfill on the planning maps, there are potential costs to future landowners and users in the area, as well as potential reverse sensitivity effects, as there is less transparency in the planning maps to enable informed future land-use decisions in the area.

Appendix D: Site selection report



Site Selection Process

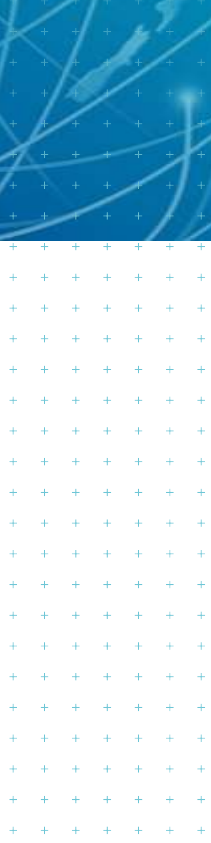
Auckland Regional Landfill

Prepared for
Waste Management NZ Ltd

Prepared by
Tonkin & Taylor Ltd

Date
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Job Number
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Document Control

Title: Site Selection Process					
Date	Version	Description	Prepared by:	Reviewed by:	Authorised by:
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1 Introduction and background

1.1 Introduction

This report provides a summary of the site alternatives assessment undertaken in the development of the Auckland Regional Landfill project. This has been a long and iterative process, commencing in 2007 and evolving over time. A significant number of potential sites were considered.

The report summarises the decision making and assessment process involved in considering alternative sites. This report does not identify the other sites considered. This is due to commercial sensitivity and the potential impact on current landowners of the other sites, as the vast majority would be unaware that their land was considered, potentially causing significant uncertainty for them if this information was made public. However, this report is intended to demonstrate that significant analysis occurred prior to the selection of the Wayby Valley site for the proposed Auckland Regional Landfill.

1.2 Background

Tonkin & Taylor Ltd (T+T) undertook preliminary site identification studies for a possible new “northern” landfill, on behalf of WMNZ in 2007 and 2009. Although the 2007 siting study initially identified in the order of 50 potential sites, a limited number (19 sites) proved viable on further consideration of distance to the north of the Auckland CBD, distance from State Highway 1 and other locational constraints that WMNZ considered appropriate at the time. Ultimately only two sites were identified in the 2007 report as likely being worth further consideration based on the criteria originally set.

In 2009 a further assessment with broader primary constraints was carried out which reviewed and updated the 2007 report and extended consideration to areas northwest of Auckland along SH16. The findings of the 2009 report were that additional sites were identified (28 sites), while one of the shortlisted sites from the 2007 report was removed from the list of possible sites for a number of reasons. The 2009 report identified four sites as being potentially viable and worthy of more detailed scrutiny (from the 28 initially considered), two of which were located off SH16 northwest of the Auckland CBD.

In late 2013 further work commenced which built on that undertaken in 2007 and 2009. This work included a review of the earlier work taking into account changes that had occurred in the regulatory framework and land use patterns within the region, proposed changes to the State Highway network, as well as the latest local and international good practice for landfill siting. Specifically, the finalised designation for the Pūhoi to Warkworth motorway and the notification of the Proposed Auckland Unitary Plan (PAUP) both needed to be considered in the context of the previously identified sites, as well as in relation to any further identified sites.

In undertaking the most recent review it was recognised that land use in the region has changed over the intervening period and the intensification of urbanisation to the north and northwest of the Auckland CBD is progressively increasing the constraints that apply to a large land block suitable for landfill development.

As part of the overall evaluation of these sites, the project team went on helicopter flights in August 2014 to view all of the sites from the air (9 sites). This enabled the team to see not only the proposed landfill footprint areas, but also potential access and haulage routes within the area and neighbouring properties and buffers. These flyovers provided further clarification and assisted with scoring of the potential sites.

2 Key drivers for site selection

The key drivers for the site selection process were related to the overall project objective, namely to find a site to establish a regional landfill, including ancillary waste activities that support its operation. To enable this objective to be fulfilled a site needed to be found and secured, as well as the appropriate resource consents obtained. While looking at options for a site the following key drivers had to be considered:

- A site large enough to provide a regional facility for Auckland and enable security of operation for the landfill into the future;
- Adequate buffer distances to neighbouring properties;
- A site that is readily accessible from the State Highway network to enable suitable access;
- A site whereby the geology was workable and did not present any fatal flaws;
- Terrain and topography;
- Avoiding known sites of significance to iwi;
- Planning overlays and zones, particularly to avoid sites that might be within areas of archaeological, or ecological significance as flagged through planning documents; and
- Complexity of land ownership and title encumbrances.

These key drivers are expanded on below as part of the discussion on the site selection process that was undertaken.

3 Site selection process

The process of identifying a preferred site followed a number of steps. In the first instance a constraints mapping exercise was undertaken to narrow the potential areas for consideration based on how feasible and practical it would be to develop a landfill of the size required and secondly to ensure any “fatal flaws” were identified. The first step in this process was the identification of “key selection criteria” to form the basis for the initial site identification process.

3.1 Key site selection criteria

The earlier landfill site selection process, which was updated as the project progressed, was based on setting a primary siting constraint related to access. Previous New Zealand experience with landfill site selection has shown that community and consenting issues often relate to concerns over increases in truck traffic on local roads. This is primarily due to the potential for adverse amenity effects that can result from noise, dust, vibration and visual impacts from these truck movements. These can result in a noticeable and undesirable change on what might be a sedate local environment. This reduction in amenity may result in restrictions on the operation of the landfill by restricting numbers or operating hours through consent conditions, therefore it is preferable to avoid local roads where possible.

The primary siting constraint established during the 2007 study remained throughout as a key consideration for siting. That is, the primary requirement for any site is that it is accessible from within a corridor 2 to 5 km wide, either side of a State highway to the north and north-west of the Auckland CBD. This constraint immediately removes large areas of land in the central northern areas between SH16 and SH1 from consideration, but in the context of a new regional landfill site, this was considered appropriate due to the heavy truck movements and therefore the need to be close to main arterial routes.

While most rural areas serviced by the secondary road network receive regular flows of heavy traffic, much of this is service and farm related and is accepted as normal. However, from the perspective of siting and consenting a new regional landfill facility, where truck movements are likely to exceed one million truck movements over the life of the facility, access from a primary regional haul route is considered an essential requirement. Previous case law from landfill consent processes has confirmed the critical importance of this consideration and therefore areas which are not within direct access distance of one of the State highway routes have been discounted from consideration from the outset. In short, all such areas are considered likely to be too difficult to consent due to traffic impact and related considerations.

Once this primary siting constraint had been applied, identified sites were ranked by looking at secondary siting considerations such as site size and development potential (to ensure a workable landfill volume can be achieved, as well as adequate buffer), buffer availability (both internal and external), planning considerations and site ownership complexity (which relates to land availability). The technical attributes of sites such as geology, hydrogeology and topography were also assessed as these affect the viability and cost of landfill development. However, given the relative importance of the key secondary attributes related to buffer availability, site size (and hence landfill volume potential) and land availability, technical attributes such as geology and topography were given a lower weighting when scoring and ranking the sites. This is because technical deficiencies in a site (for example steep topography) can often be dealt with through engineering, whereas a more fundamental requirement such as the site’s size, or the availability of buffer, cannot.

In summary the constraint hierarchy applied for the consideration of alternative sites were as follows:

- 1 Primary constraint – any potential site must be located within or accessible from a corridor 2 to 5 km wide aligned along state highway routes north and north-west of Auckland and within an acceptable haulage distance north and north-west of the Auckland Harbour Bridge (this distance was initially set as 60 km for both directions based on a WMNZ internal assessment of an economic haul distance cut-off. The northern cut-off distance was subsequently amended as more clarity was provided by NZTA around the proposed improvements to the State highway network in North Auckland). Any land area outside these corridors has not been considered due to known consenting issues related to truck traffic on secondary roads.
- 2 Secondary constraints (weighting = 3 to 5):
 - Site size/available land area (weighting 4)
 - Buffer availability (weighting 5)
 - Land title complexity / number of owners (weighting 3)
 - Specific Auckland Unitary Plan (AUP) constraints such as proximity to or impingement on identified sites of cultural significance, Outstanding Natural Landscapes, Significant Ecological Areas and watercourses (weighting 3)
- 3 Tertiary constraints (weighting = 1 or 2)
 - Geology / natural containment/ hydrogeology (weighting 2)
 - Topography (weighting 2)
 - Engineering complexity (weighting 2)
 - General AUP constraints (weighting 1)

This approach is consistent with the WasteMINZ Technical Guidelines for Disposal to Land (2018) (**Guidelines**). These Guidelines supersede the CAE Landfill Guidelines 2000, and provide recommendations on siting, design, construction, operation, and monitoring for disposal to land. The Guidelines also establish “good practice requirements” for the various types of facilities based on waste acceptance criteria. Of particular relevance to this assessment are the Guidelines’ recommendations with respect to geological requirements and in particular constraints around high permeability soils, sands and gravels, active faults and karst geology. In the site selection process any areas of high permeability or active faults were avoided. In areas that have such technical constraints, as recommended by the Guidelines, the design would need to incorporate a higher level of engineered containment and appropriate contingency measures than would be required at a site with low permeability underlying geology (natural containment). This was taken into account in the ranking of the sites.

3.2 Cultural Issues

As part of the site selection process, consideration was given to the location of marae and areas of significance to iwi. As the site selection process was a confidential desktop exercise, this was assessed using information available on the New Zealand Archaeological Association ArchSite, Auckland Council Geo Maps, ownership identified by Certificates of Titles, and Treaty Settlement agreements. Areas that were in legal ownership of iwi (as recognised by LINZ), incorporated Marae, or were listed as sites of significance to mana whenua were avoided.

3.3 Site assessment and ranking

Over the course of the site selection process numerous sites were looked at for consideration (upwards of 28). These were slowly whittled down over the various iterations, with the final ranking matrix from the 2014 report including a ranking of 9 potential sites. A summary of the key observations from the ranking process are as follows:

- Only a few sites had a good buffer available. Many of them only had marginal buffer availability which dropped them down the ranking.
- Land information on title owners and encumbrances, varied extensively, with some sites being particularly complex in regards to the number of owners and legal mechanisms registered against the titles.
- The issues identified under the AUP (which at the time of the 2014 report was the Proposed Auckland Unitary Plan) were separated into primary and secondary concerns. Any new landfill under the AUP requires a consent for landfilling activity regardless of location and therefore the AUP requirements that vary between sites are those around existing features of environmental significance, such as outstanding landscapes, vegetation, areas of ecological significance/biodiversity and watercourses. These were ranked as primary concerns with secondary concerns including identified sites of ecological significance and natural hazard notations, both of which were new features within the AUP. It should also be noted that for the 2014 phase of the project, the AUP was going through the submission, further submission and hearing phase of the AUP process and therefore the relevant objectives, policies and rules were changing.
- None of the sites had ideal hydrogeological / geological suitability and this is also reflected in the level of engineering complexity. However, as discussed previously, this only requires attention during the design and operational phases of the landfill development rather than rules out a specific site from development. The Wayby Valley had conditions which were able to be addressed through additional engineering controls, rather than any “fatal flaws” which would have deemed it unsuitable for development.

3.4 Traffic and NZTA input

Some preliminary traffic analysis and input was sought relating to some of the preferred sites to determine how difficult access to the sites would be and what approvals may be required from NZTA.

There was also some analysis done in relation to the “roads of national significance” and what plans NZTA had for the region in relation to motorway upgrades or extensions. As discussed earlier, the distribution of refuse from the main centres out towards the landfill is of critical importance and haulage routes and times are central to the development of such a facility.

4 Conclusions

Since the initial commencement of the project in 2007, an extensive process of alternatives assessments and site identification studies have occurred to refine the options for selecting a suitable site for the development of a regional scale landfill to serve Auckland. This ultimately resulted in the identification of the proposed site for the Auckland Regional Landfill in the Wayby Valley.

5 Applicability

This report has been prepared for the exclusive use of our client Waste Management NZ Ltd, with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Tonkin & Taylor Ltd

Report prepared by:



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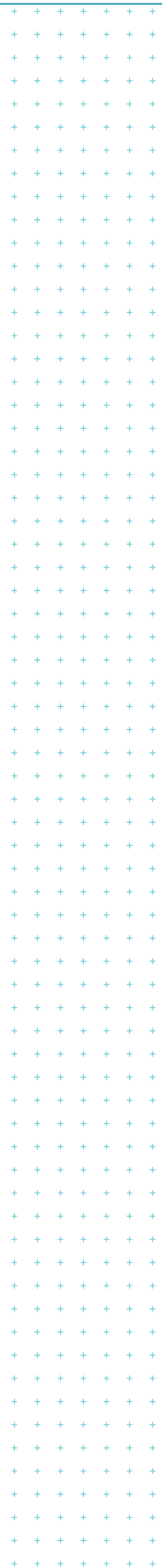
Authorised for Tonkin & Taylor Ltd by:



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Simonne Eldridge

Project Director

ALB



**Appendix E: Assessment of precinct provisions
against AUP**

Proposed Objectives and Policies	Regional Policy Statement	Auckland Unitary Plan	Comment
OBJECTIVES			
<p>Objective 1 The development and continued operation of the Auckland Regional Landfill is enabled, recognising its regional significance as essential infrastructure, and recognising the benefits of biomass being used for renewable energy generation.</p>	<p>B3 Infrastructure, Transport and electricity B3.2 Infrastructure B3.2.1(3) Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on: (a) the quality of the environment and, in particular, natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character; (b) the health and safety of communities and amenity values B3.2.2(1) Enable the efficient development, operation, maintenance and upgrading of infrastructure. B3.2.1 (4) The functional and operational needs of infrastructure are recognised. B3.2.2 (1) Enable the efficient development, operation, maintenance and upgrading of infrastructure. B 3.2.2 (6) Enable the development, operation, maintenance and upgrading of infrastructure in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character while ensuring that the adverse effects on the values of such areas are avoided where practicable or otherwise remedied or mitigated. B3.4 Energy B3.4.1 (1) Existing and new renewable electricity generation is provided for. B3.4.2 (1) Recognise the national, regional and local benefits to be derived from maintaining or increasing the level of electricity generated from renewable energy sources. B3.4.2 (2) Provide for renewable electricity generation activities to occur at different scales and from different sources to reduce reliance on non-renewable energy sources.</p>	<p>E26 Infrastructure E26.2. Network utilities and electricity generation E26.2.1 (1) The benefits of infrastructure are recognised. E26.2.1 (3) Safe, efficient and secure infrastructure is enabled, to service the needs of existing and authorised proposed subdivision, use and development. E26.2.1 (4) Development, operation, maintenance, repair, replacement, renewal, upgrading and removal of infrastructure is enabled. E26.2.1 (8) The use and development of renewable electricity generation is enabled. E26.2.2 (1) Recognise the social, economic, cultural and environmental benefits that infrastructure provides, including: (a) enabling enhancement of the quality of life and standard of living for people and communities; (b) providing for public health and safety; (c) enabling the functioning of businesses; (d) enabling economic growth; (e) enabling growth and development; (f) protecting and enhancing the environment; (g) enabling the transportation of freight, goods, people; and (h) enabling interaction and communication. E26.2.2 (2) Provide for the development, operation, maintenance, repair, upgrade and removal of infrastructure throughout Auckland by recognising: (a) functional and operational needs; (b) location, route and design needs and constraints; (c) the complexity and interconnectedness of infrastructure services; (d) the benefits of infrastructure to communities with in Auckland and beyond; (e) the need to quickly restore disrupted services; and (f) its role in servicing existing, consented and planned development. E26.2.2 (5) Consider the following matters when assessing the effects of infrastructure: (a) the degree to which the environment has already been modified; (b) the nature, duration, timing and frequency of the adverse effects; (c) the impact on the network and levels of service if the work is not undertaken; (d) the need for the infrastructure in the context of the wider network; and (e) <u>the benefits provided by the infrastructure to the communities within Auckland and beyond.</u> E26.2.2 (12) Provide for renewable electricity generation activities to occur at different scales and from different sources, including small and community-scale renewable electricity generation activities.</p>	<p>The proposed objective is included to recognise and enable the development and operation of infrastructure within the proposed precinct. This proposed objective aligns with objectives in the RPS and within the regional plan provisions supporting infrastructure as demonstrated in this table. The wider AUP recognises that most if not all significant infrastructure activities will result in adverse effects within the footprint of the infrastructure development. Therefore the proposed objective gives effect to s67 and s75 of the RMA requiring objectives to give effect to the RPS.</p>
<p>Objective 2 Human health is protected from adverse effects of operational or closed landfills</p>	<p>B3 Infrastructure, Transport and electricity B3.2 Infrastructure B3.2.1 (3) Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on: (a) the quality of the environment and, in particular, natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character; <u>(b) the health and safety of communities and amenity values.</u> B7.5.2 (1) Manage discharge of contaminants to air from use and development to: (a) avoid significant adverse effects on human health and reduce exposure to adverse air discharges; (b) control activities that use or discharge noxious or dangerous substances; (c) minimise reverse sensitivity effects by avoiding or mitigating potential land use conflict</p>	<p>E13 Cleanfills, managed fills and landfills E13.2 (2) Human health is protected from the adverse effects of operational or closed cleanfills, managed fills and landfills. E14 Air Quality E14.2 (1) Air quality is maintained in those parts of Auckland that have high air quality, and air quality is improved in those parts of Auckland that have low to medium air quality. E14.2 (2) Human health, property and the environment are protected from significant adverse effects from the discharge of contaminants to air. E14.2 (4) The operational requirements of light and heavy industry, other location-specific industry, infrastructure, rural activities and mineral extraction activities are recognised and provided for. E14.3 (1) Manage the discharge of contaminants to air, including by having regard to the Auckland Ambient Air Quality Targets in Table E14.3.1, so that</p>	<p>The proposed objective is included to recognise and protect human health in relation to activities which are undertaken within the proposed precinct. This proposed objective aligns with objectives in the RPS and within the regional plan provisions for managing discharges from landfills and discharges to air as demonstrated in this table. Therefore the proposed objective gives effect to s67 and s75 of the RMA requiring objectives to give effect to the RPS.</p>

Proposed Objectives and Policies	Regional Policy Statement	Auckland Unitary Plan	Comment
	<p>between activities that discharge to air and activities that are sensitive to air discharges; (d) protect activities that are sensitive to the adverse effects of air discharges; (e) protect flora and fauna from the adverse effects of air discharges; (f) enable the operation and development of infrastructure, industrial activities and rural production activities that discharge contaminants into air, by providing for low air quality amenity in appropriate locations;</p>	<p>significant adverse effects on human health, including cumulative adverse effects, are avoided, and all other adverse effects are remedied or mitigated.</p> <p>E14.3 (3) In the Rural – Rural Production Zone, Rural – Mixed Rural Zone, Rural – Rural Coastal Zone, Future Urban Zone, Auckland Council District Plan – Hauraki Gulf Island Rural 1-3 and Landform 1-7:</p> <p>Recognise that rural air quality is generally a result of dust and odours, and other emissions generated by rural production activities;</p> <p>Avoid, remedy or mitigate adverse effects of dust and odour discharge;</p> <p>Provide for minor and localised elevation of dust and odour levels where the air discharge is from:</p> <ul style="list-style-type: none"> i Rural production activities or rural industry or; ii The operation of infrastructure or location specific industry; or iii Mineral extraction activities; or iv Activities undertaken by the New Zealand Defence Force for training and munitions testing; or v For emergency services training; <p>Require adequate separation between use and development which discharge dust and odour and activities that are sensitive to these adverse effects.</p> <p>E14.3 (6) Avoid the discharge of contaminants to air from industrial activities in rural zones and the coastal marine area except where the activity is:</p> <p>Location specific, such as mineral extraction activities and mineral processing, wastewater treatment facilities, marine and port activities;</p> <p>Undertaken by the New Zealand Defence Force for training and munitions testing, or for emergency services training;</p> <p>Infrastructure requiring large separation distances that cannot be provided within urban areas; or</p> <p>A rural industry.</p> <p>E14.3 (8) Avoid, remedy or mitigate the adverse effects on air quality from discharges of contaminants into air by:</p> <p>Using the best practicable option for emission control and management practices that are appropriate to the scale of the discharge and potential adverse effects; or</p> <p>Adopting a precautionary approach, where there is uncertainty and a risk of significant adverse effects or irreversible harm to the environment from air discharges.</p> <p>E14.3 (9) Avoid, remedy or mitigate the adverse effects on air quality beyond the boundary of the premises where the discharge of contaminants to air is occurring, in relation to:</p> <p>Noxious or dangerous effects on human health, property or the environment from hazardous air pollutants; or</p> <p>Overspray effects on human health, property or the environment.</p>	
<p>Objective 3 The Auckland Regional Landfill is designed and operated so</p>	<p>B7 – Natural resources B7.4. Coastal water, freshwater and geothermal water</p>	<p>E1. Water quality and integrated management E1.2.(1) Freshwater and sediment quality is maintained where it is excellent or good and progressively improved over time in degraded areas.</p>	<p>The proposed objective is included to require discharges from land and water from activities in the precinct to be appropriately managed. This proposed objective aligns</p>

Proposed Objectives and Policies	Regional Policy Statement	Auckland Unitary Plan	Comment
<p>that the adverse effects of discharges to land and water from the landfill are avoided, remedied or mitigated</p>	<p>B7.4.1.(4) The adverse effects of point and non-point discharges, in particular stormwater runoff and wastewater discharges, on coastal waters, freshwater and geothermal water are minimised and existing adverse effects are progressively reduced.</p> <p>B7.4.1.(5) The adverse effects from changes in or intensification of land use on coastal water and freshwater quality are avoided, remedied or mitigated.</p> <p>B7.4.2.(1) Integrate the management of subdivision, use, development and coastal water and freshwater, by: (a) ensuring water supply, stormwater and wastewater infrastructure is adequately provided for in areas of growth; and (b) requiring catchment management planning as part of structure planning; (c) controlling the use of land and discharges to minimise the adverse effects of runoff on water and progressively reduce existing adverse effects where those water are degraded; and (d) avoiding development where it will significantly increase adverse effects on water, unless these adverse effects can be adequately mitigated.</p> <p>B7.4.2.(7) Manage the discharges of contaminants into water from subdivision, use and development to avoid where practicable, and otherwise minimise, all of the following: (a) significant bacterial contamination of freshwater and coastal water; (b) adverse effects on the quality of freshwater and coastal water; (c) adverse effects from contaminants, including nutrients generated on or applied to land, and the potential for these to enter freshwater and coastal water from both point and non-point sources; (d) adverse effects on Mana Whenua values associated with coastal water, freshwater and geothermal water, including wāhi tapu, wāhi taonga and mahinga kai; and (e) adverse effects on the water quality of catchments and aquifers that provide water for domestic and municipal supply.</p>	<p>(1) Manage discharges, until such time as objectives and limits are established in accordance with Policy E1.3(7), having regard to: (a) the National Policy Statement for Freshwater Management National Bottom Lines; (b) the Macroinvertebrate Community Index as a guideline for freshwater ecosystem health associated with different land uses within catchments in accordance with Policy E1.3(2); or (c) other indicators of water quality and ecosystem health.</p> <p>E1.3.(2) Manage discharges, subdivision, use, and development that affect freshwater systems to: (a) maintain or enhance water quality, flows, stream channels and their margins and other freshwater values, where the current condition is above National Policy Statement for Freshwater Management National Bottom Lines and the relevant Macroinvertebrate Community Index guideline in Table E1.3.1 below; or (b) enhance water quality, flows, stream channels and their margins and other freshwater values where the current condition is below national bottom lines or the relevant Macroinvertebrate Community Index guideline in Table E1.3.1 below.</p> <p>E1.3.(4) When considering any application for a discharge, the Council must have regard to the following matters: (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of freshwater including on any ecosystem associated with freshwater; and (b) the extent to which it is feasible and dependable that any more than a minor adverse effect on freshwater, and on any ecosystem associated with freshwater, resulting from the discharge would be avoided.</p> <p>E1.3.(5) When considering any application for a discharge the Council must have regard to the following matters: (a) the extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their secondary contact with fresh water; and (b) the extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided.</p> <p>E1.3.(8) Avoid as far as practicable, or otherwise minimise or mitigate, adverse effects of stormwater runoff from greenfield development on freshwater systems, freshwater and coastal water by: (a) taking an integrated stormwater management approach (refer to Policy E1.3.10); (b) minimising the generation and discharge of contaminants, particularly from high contaminant generating car parks and high use roads and into sensitive receiving environments; (c) minimising or mitigating changes in hydrology, including loss of infiltration, to: (i) minimise erosion and associated effects on stream health and values; (ii) maintain stream baseflows; and (iii) support groundwater recharge; (d) where practicable, minimising or mitigating the effects on freshwater systems arising from changes in water temperature caused by stormwater discharges; and (e) providing for the management of gross stormwater pollutants, such as litter, in areas where the generation of these may be an issue.</p> <p>E1.3.(9) Minimise or mitigate new adverse effects of stormwater runoff, and where practicable progressively reduce existing adverse effects of stormwater runoff, on freshwater systems, freshwater and coastal waters during intensification and redevelopment of existing urban areas by all of the following: (a) requiring measures to reduce contaminants, particularly from high contaminant-generating car parks and high-use roads; (b) requiring measures to reduce the discharge of gross stormwater pollutants; (c)</p>	<p>with objectives in the RPS and within the regional plan provisions for managing discharges to land and water as demonstrated in this table. Therefore the proposed objective gives effect to s67 and s75 of the RMA requiring objectives to give effect to the RPS.</p>

Proposed Objectives and Policies	Regional Policy Statement	Auckland Unitary Plan	Comment
		<p>requiring measures to be adopted to reduce the peak flow rate and the volume of stormwater flows: (i) within sites identified in the Stormwater Management Area – Flow 1 and Flow 2 Control (as shown on the planning maps); (ii) where development exceeds the maximum impervious area for the relevant zone; or (iii) from areas of impervious surface where discharges may give rise to flooding or adversely affect rivers and streams; (d) taking an integrated stormwater management approach for large-scale and comprehensive redevelopment and intensification (refer to Policy E1.3.10 below) and encourage the restoration of freshwater systems where practicable; and (e) ensuring intensification is supported by appropriate stormwater infrastructure, including natural assets that are utilised for stormwater conveyance and overland flow paths.</p> <p>E1.3.(11) Avoid as far as practicable, or otherwise minimise or mitigate adverse effects of stormwater diversions and discharges, having particular regard to: (a) the nature, quality, volume and peak flow of the stormwater runoff; (b) the sensitivity of freshwater systems and coastal waters, including the Hauraki Gulf Marine Park; (c) the potential for the diversion and discharge to create or exacerbate flood risks; (d) options to manage stormwater on-site or the use of communal stormwater management measures; (e) practical limitations in respect of the measures that can be applied; and (f) the current state of receiving environments.</p> <p>E13. Cleanfills, managed fills and landfills</p> <p>E13.2.(1) Cleanfills, managed fills and landfills are sited, designed and operated so that adverse effects on the environment, are avoided, remedied or mitigated.</p> <p>E13.3(4) Avoid adverse effects from new landfills.</p> <p>E33. Industrial and trade activities</p> <p>E33.2.(1) Industrial and trade activities are managed to avoid adverse effects on land and water from environmentally hazardous substances and discharge of contaminants, or to minimise adverse effects where it is not reasonably practicable to avoid them</p> <p>E33.3.(1) Manage the use of land for industrial or trade activities to prevent or minimise any adverse effects of storage, use or disposal of environmentally hazardous substances.</p> <p>E33.3.(2) Require industrial or trade activities to have, where reasonably practicable, onsite management systems, processes, containment, treatment, or disposal by lawful means.</p> <p>E33.3.(3) Require measures to be implemented, where contaminants cannot be disposed as trade waste to the wastewater network or contained on site, to minimise adverse effects on land and water including: (a) reducing contaminant volumes and concentrations as far as practicable; and (b) applying measures, including treatment, management procedures, monitoring, controls, or offsite disposal, having regard to the nature of the discharge and the sensitivity of the receiving environment.</p>	
<p>Objective 4 Adverse effects on rivers, lakes, streams and wetlands arising from the development and continued operation of the Auckland Regional Landfill are avoided, remedied or mitigated, and significant</p>	<p>B3 Infrastructure, transport and electricity B3.2 Infrastructure B3.2.1(3) Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on: (a) the quality of the environment and, in particular, natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment,</p>	<p>E3 Lakes, rivers, streams and wetlands E3.2 (3) Significant residual adverse effects on lakes, rivers, streams or wetlands that cannot be avoided, remedied or mitigated are offset where this will promote the purpose of the Resource Management Act 1991. E3.2 (5) Activities in, on, under or over the bed of a lake, river, stream and wetland are managed to minimise adverse effects on the lake, river, stream or wetland.</p>	<p>The proposed objective is included to require activities in the precinct which impact on freshwater systems to be appropriately managed, including providing for the use of offsetting and compensation. This proposed objective aligns with objectives in the RPS and within the regional and district plan provisions which require effects of infrastructure to be avoided, remedied or mitigated, and where appropriate, offset or compensated. The wider</p>

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<p>residual adverse effects are, to the extent reasonably practicable, and as offered by the applicant, offset, or compensated where this will promote the purpose of the Resource Management Act 1991.</p>	<p>historic heritage and special character; (b) the health and safety of communities and amenity values</p> <p>B3.2.1 (4) The functional and operational needs of infrastructure are recognised.</p> <p>B3.2.1 (8) The adverse effects of infrastructure are avoided, remedied or mitigated.</p> <p>B7 Natural Resources</p> <p>B7.2 Indigenous Biodiversity</p> <p>B7.2.1 (1) Areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision use and development.</p> <p>B7.2.1 (2) Indigenous biodiversity is maintained through protection, restoration and enhancement in areas where ecological values are degraded, or where development is occurring.</p> <p>B7.2.2 (5) Avoid adverse effects on areas listed in the Schedule 3 of Significant Ecological Areas – Terrestrial Schedule and Schedule 4 Significant Ecological Areas – Marine Schedule.</p> <p>B7.3 Freshwater systems</p> <p>B7.3.1 (2) Loss of freshwater systems is minimised.</p> <p>B7.3.2 (4) Avoid the permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands and their margins, unless all of the following apply: (a) it is necessary to provide for: (i) the health and safety of communities; or (ii) the enhancement and restoration of freshwater systems and values; or (iii) the sustainable use of land and resources to provide for growth and development; or (iv) infrastructure; (b) <u>no practicable alternative exists</u>; (c) mitigation measures are implemented to address the adverse effects arising from the loss in freshwater system functions and values; and (d) <u>where adverse effects cannot be adequately mitigated, environmental benefits including on-site or off-site works are provided</u></p>	<p>E15.3 (2) Manage the effects of activities to avoid significant adverse effects on biodiversity values as far as practicable, minimise significant adverse effects where avoidance is not practicable, and avoid, remedy or mitigate any other adverse effects on indigenous biological diversity and ecosystem services, including soil conservation, water quality and quantity management, and the mitigation of natural hazards.</p> <p>E15.3(3) Encourage the offsetting of any significant residual adverse effects on indigenous vegetation and biodiversity values that cannot be avoided, remedied or mitigated, through protection, restoration and enhancement measures, having regard to Policy E15.3(4) below and Appendix 8 Biodiversity offsetting.</p>	<p>AUP objectives and policies recognise that most if not all significant infrastructure activities will result in adverse effects within the footprint of the infrastructure development. Therefore the proposed objective gives effect to s67 and s75 of the RMA requiring objectives to give effect to the RPS.</p>
<p>Objective 5</p> <p>Effects on the ecological and mana whenua values from works within any Significant Ecological Area overlay or Wetland Management Area overlay areas are avoided, and effects on the ecological and mana whenua values from works within any Natural Stream Management Area overlay area are avoided where practicable or are otherwise minimised</p>	<p>B7 Natural Resources</p> <p>B7.2.1 Indigenous Biodiversity</p> <p>B7.2.2 (1) Areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision use and development.</p> <p>B7.2.2 (5) Avoid adverse effects on areas listed in the Schedule 3 of Significant Ecological Areas – Terrestrial Schedule and Schedule 4 Significant Ecological Areas – Marine Schedule.</p> <p>B7.3.2 (5) Manage subdivision, use, development, including discharges and activities in the beds of lakes, rivers streams, and in wetlands, to do all of the following: (a) protect identified Natural Lake Management Areas, Natural Stream Management Areas, and Wetland Management Areas; (b) minimise erosion and modification of beds and banks of lakes, rivers, streams and wetlands; (c) limit the establishment of structures within the beds of lakes, rivers and streams and in wetlands to those that have a functional need or operational requirement to be located there; and (d) maintain or where appropriate enhance: (i) freshwater systems not protected under B7.3.2(5)(a); (ii) navigation along rivers and public access to and along lakes, rivers and streams; (iii) existing riparian vegetation located on the margins of lakes, rivers, streams and wetlands; and (iv) areas of significant indigenous biodiversity</p>	<p>D4 Natural Stream Management Areas</p> <p>D4.2 (1) Rivers and streams identified as natural stream management areas with high natural character and high ecological values are protected.</p> <p>D4.3 (1) Protect the in-stream values and riparian margins of natural stream management areas.</p> <p>D4.3 (2) Allow water takes and contaminant discharges only where they are of a scale and type that protects the in-stream values of these rivers and streams.</p> <p>D4.3 (3) Maintain and where possible enhance fish passage between the coastal marine area and the upstream extent of natural stream management areas.</p> <p>D4.3 (4) Avoid structures and activities in natural stream management areas that disturb, damage, remove or replace the natural bed and course of the river or stream and its associated indigenous riparian vegetation.</p> <p>D4.3 (5) Provide for infrastructure in natural stream management areas where there is a functional or operational need to be in that location or traverse the area and there is no practicable alternative.</p> <p>D8 Wetland Management Areas Overlay</p> <p>D8.2. (1) High natural character and ecological values of wetland management areas are maintained or enhanced.</p>	<p>The proposed objective is included to protect and maintain areas which have been identified as having significant values. This proposed objective aligns with objectives in the RPS and within the regional plan provisions which require effects on these areas to be avoided (except in limited circumstances) as demonstrated in this table. Therefore the proposed objective gives effect to s67 and s75 of the RMA requiring objectives to give effect to the RPS.</p>

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	<p>B3 Infrastructure, transport and electricity</p> <p>B3.2.2(3) Provide for the locational requirements of infrastructure by recognising that it can have a functional or operational need to be located in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character</p> <p>B3.2.2(6) Enable the development, operation, maintenance and upgrading of infrastructure in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character while ensuring that the adverse effects on the values of such areas are avoided where practicable or otherwise remedied or mitigated.</p>	<p>D8.3. (1) Maintain or enhance wetland management areas by: (a) maintaining water quality where it is excellent or good and progressively improve where it is degraded; (b) maintaining water levels to ensure ecosystem functionality and significant variations in water levels occur only through natural fluctuations; (c) avoiding the removal or degradation of wetland vegetation in, on, or adjacent to wetlands; (d) avoiding adverse effects of any activity on ecological values; (e) maintaining the size and spatial extent of the wetland area by avoiding progressive loss of wetland areas; and (f) providing for wetland enhancement activities, including riparian planting and the removal of invasive pests.</p> <p>D8.3. (3) Avoid activities in, on or adjacent to wetland management areas except where the activity: (a) is for wetland conservation purposes, including pest removal; (b) is for public access and interpretative activities relating to high natural character and ecological values; or (c) is for operation, maintenance, upgrading or replacement of existing or new infrastructure; provided significant adverse effects on the high natural character and ecological values of the wetland are avoided, and other adverse effects are avoided, remedied, mitigated or offset.</p> <p>D9 Significant Ecological Areas Overlay</p> <p>D9.2. (1) Areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision, use and development.</p> <p>D9.3 (1) Manage the effects of activities on the indigenous biodiversity values of areas identified as significant ecological areas by:</p> <p>(a) avoiding adverse effects on indigenous biodiversity in the coastal environment to the extent stated in Policies D9.3(9) and (10); (b) avoiding other adverse effects as far as practicable, and where avoidance is not practicable, minimising adverse effects on the identified values; (c) remedying adverse effects on the identified values where they cannot be avoided; (d) mitigating adverse effects on the identified values where they cannot be avoided or remediated; and (e) considering the appropriateness of offsetting any residual adverse effects that are significant and where they have not been able to be mitigated, through protection, restoration and enhancement measures, having regard to Appendix 8 Biodiversity offsetting.</p> <p>E3 Lakes Rivers Streams and Wetlands</p> <p>E3.3(1) Avoid significant adverse effects, and avoid where practicable or otherwise remedy or mitigate other adverse effects of activities in, on, under or over the beds of lakes, rivers, streams or wetlands within the following overlays: (a) D4 Natural Stream Management Areas Overlay; (b) D5 Natural Lake Management Areas Overlay; (c) D6 Urban Lake Management Areas Overlay; (d) D9 Significant Ecological Areas Overlay; and (e) D8 Wetland Management Areas Overlay.</p> <p>E3.3 (3) Enable the enhancement, maintenance and restoration of lakes, rivers, streams or wetlands</p>	
<p>Objective 6</p> <p>The mauri of freshwater and indigenous biodiversity within those areas of the precinct not required for operations associated with the development and continued operation of the Auckland</p>	<p>B6 Mana Whenua</p> <p>B6.3.1(2) The mauri of, and the relationship of Mana Whenua with, natural and physical resources including freshwater, geothermal resources, land, air and coastal resources are enhanced overall.</p> <p>B6.3.2 (4) Provide opportunities for Mana Whenua to be involved in the integrated management of natural and physical resources in ways that do all of the following: (a) recognise the holistic nature of the Mana Whenua world view; (b) recognise any protected customary right in accordance</p>	<p>E1.2 Water quality and integrated management</p> <p>E1.2 Objectives</p> <p>E1.2 (1) Freshwater and sediment quality is maintained where it is excellent or good and progressively improved over time in degraded areas.</p> <p>E1.2 (2) The mauri of freshwater is maintained or progressively improved over time to enable traditional and cultural use of this resource by Mana Whenua.</p>	<p>The proposed objective is included to recognise and provide for the enhancement over time of the mauri of freshwater and indigenous biodiversity within the proposed precinct. This proposed objective aligns with objectives in the RPS and within the regional plan provisions which provide for protection and enhancement of freshwater systems and biodiversity, as demonstrated in this table. Therefore the proposed</p>

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<p>Regional Landfill is progressively enhanced over time.</p>	<p>with the Marine and Coastal Area (Takutai Moana) Act 2011; and (c) <u>restore or enhance the mauri of freshwater and coastal ecosystems</u></p> <p>B6.3.2 (5) Integrate Mana Whenua values, mātauranga and tikanga when giving effect to the National Policy Statement on Freshwater Management 2014 in establishing all of the following:</p> <ul style="list-style-type: none"> Water quality limits for freshwater, including groundwater; The allocation and use of freshwater resources, including groundwater; and Integrated management of the effects of the use and development of land and freshwater on coastal water and the coastal environment. <p>B7 Natural Resources</p> <p>B7.2.1 Indigenous Biodiversity</p> <p>B7.2.1 Objectives</p> <p>B.7.2.1 (1) Areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision use and development.</p> <p>B.7.2.1 (2) Indigenous biodiversity is maintained through protection, restoration and enhancement in areas where ecological values are degraded, or where development is occurring.</p> <p>B7.4.1 (2) The quality of freshwater and coastal water is maintained where it is excellent or good and progressively improved over time where it is degraded.</p> <p>B7.2.2 Policies</p> <p>B7.2.2 (1) Identify and evaluate areas of indigenous vegetation and the habitats of indigenous fauna in terrestrial and freshwater environments considering the following factors in terms of the descriptors contained in Schedule 3 Significant Ecological Areas – Terrestrial Schedule:</p> <ul style="list-style-type: none"> • Representativeness; • Stepping stones, migration pathways and buffers; • Threat status and rarity; • Uniqueness or distinctiveness; and • Diversity. <p>B7.2.2 (2) Include an area of indigenous vegetation or a habitat of indigenous fauna in terrestrial or freshwater environments in the Schedule 3 of Significant Ecological Areas – Terrestrial Schedule if the area or habitat is significant.</p> <p>B7.2.2 (5) Avoid adverse effects on areas listed in the Schedule 3 of Significant Ecological Areas – Terrestrial Schedule and Schedule 4 Significant Ecological Areas – Marine Schedule.</p> <p>B7.3 Freshwater systems</p> <p>B7.3.1 Objectives</p> <p>B7.3.1 (1) Degraded freshwater systems are enhanced.</p> <p>B7.3.1 (3) The adverse effects of changes in land use on freshwater are avoided, remedied or mitigated.</p> <p>B7.3.2 Policies</p>	<p>E1.3 Policies</p> <p>E.1.3 (1) Manage discharges, until such time as objectives and limits are established in accordance with Policy E1.3.7(7), having regard to:</p> <ul style="list-style-type: none"> The National Policy Statement for Freshwater Management National Bottom Lines; The Macroinvertebrate Community Index as a guideline for freshwater ecosystems associated with different land uses within catchments in accordance with Policy E1.3(2); or Other indicators of water quality and ecosystem health. <p>E.1.3 (2) Manage discharges, subdivision, use, and development that affect freshwater systems to:</p> <ul style="list-style-type: none"> Maintain or enhance water quality, flows, stream channels and their margins and other freshwater values, where the current condition is above National Policy Statement for Freshwater Management National Bottom Lines and the relevant Macroinvertebrate Community Index guideline in Table E1.3.1 below or Enhance water quality, flows, stream channels and their margins and other freshwater values where the current condition is below national bottom lines or the relevant Macroinvertebrate Community Index guideline in Table E.1.3.1. <p>E.1.3 (3) Require freshwater systems to be enhanced unless existing intensive land use and development has irreversibly modified them such that it practicably precludes enhancement.</p> <p>E.1.3 (4) When considering any application for a discharge, the Council must have regard to the following matters:</p> <ul style="list-style-type: none"> The extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of freshwater including on any ecosystem associated with freshwater; and The extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided. <p>E.1.3 (5) When considering any application for a discharge the Council must have regard to the following matters:</p> <ul style="list-style-type: none"> The extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their secondary contact with fresh water; The extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided. <p>D9 Significant Ecological Areas Overlay</p> <p>D9.2 Objectives</p> <p>D9.2 (1) Areas of significant indigenous biodiversity value in terrestrial, freshwater, and coastal marine areas are protected from the adverse effects of subdivision, use and development.</p> <p>D9.2 (2) Indigenous biodiversity values of significant ecological areas are enhanced.</p>	<p>objective gives effect to s67 and s75 of the RMA requiring objectives to give effect to the RPS.</p>

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	<p>B7.3.2 (3) Promote the enhancement of freshwater systems identified as being degraded to progressively reduce adverse effects.</p> <p>B7.3.2 (6) Restore and enhance freshwater systems where practicable when development, change of land use, and subdivision occur.</p> <p>B7.4.1 (2) The quality of freshwater and coastal water is maintained where it is excellent or good and progressively improved over time where it is degraded.</p>	<p>D9.2 (3) The relationship between Mana Whenua and their customs and traditions with indigenous vegetation and fauna is recognised and provided for.</p> <p>Policies D9.2</p> <p>D9.2 (3) Enhance indigenous biodiversity values in significant ecological areas through any of the following:</p> <ul style="list-style-type: none"> Restoration, protection and enhancement of threatened ecosystems and habitats for rare or threatened indigenous species; Control, and where possible, eradication of plants and animal pests; Fencing of significant ecological areas to protect them from stock impacts; Legal protection of significant ecological areas through covenants or similar mechanism; Development and implementation of management plans to address adverse effects; Re-vegetating areas using, where possible, indigenous species sourced from naturally growing plants in the vicinity with the same climactic and environmental conditions; or Providing for the role of Mana Whenua as kaitiaki and for the practical exercise of kaitiakitanga in restoring, protecting and enhancing areas. <p>E15 Vegetation management and biodiversity</p> <p>E15.2 Objectives</p> <p>E15.2 (1) Ecosystems services and indigenous biological diversity values, particularly in sensitive environments, and areas of contiguous indigenous vegetation cover, are maintained or enhanced while providing for appropriate subdivision, use and development.</p> <p>E15.2 (2) Indigenous biodiversity is restored and enhanced in areas where ecological values are degraded, or where development is occurring</p> <p>E15.3 Policies</p> <p>E15.3 (1) Protect areas of contiguous indigenous vegetation cover and vegetation in sensitive environments including the coastal environment, riparian margins, wetlands, and areas prone to natural hazards.</p> <p>E15.3 (2) Indigenous biodiversity is restored and enhanced in areas where ecological values are degraded, or where development is occurring.</p>	
POLICIES			
<p>Policy 1</p> <p>Enable the development and continued operation of the Auckland Regional Landfill, and the associated renewable energy generation.</p>	<p>B3 Infrastructure, Transport and electricity</p> <p>B3.2 Infrastructure</p> <p>B3.2.1 Objectives</p> <p>B3.2.1 (4) The functional and operational needs of infrastructure are recognised.</p> <p>Policies 3.2.2</p> <p>B3.2.2 (1) Enable the efficient development, operation, maintenance and upgrading of infrastructure.</p> <p>B3.2.2 (6) Enable the development, operation, maintenance and upgrading of infrastructure in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic</p>	<p>E26 Infrastructure</p> <p>E26.2.1(1) The benefits of infrastructure are recognised.</p> <p>E26.2.2(1) Recognise the social, economic, cultural and environmental benefits that infrastructure provides, including:</p> <ul style="list-style-type: none"> Enabling enhancement of the quality of life and standard of living for people and communities; Providing for the public health and safety; Enabling the functioning of businesses; Enabling economic growth; Enabling growth and development; Protecting and enhancing the environment; 	<p>The proposed policy is included to recognise and enable the development and operation of infrastructure within the proposed precinct. This proposed objective aligns with objectives in the RPS and within the regional plan provisions supporting infrastructure as demonstrated in this table. The wider AUP recognises that most if not all significant infrastructure activities will result in adverse effects within the footprint of the infrastructure development. Therefore the proposed objective gives effect to s67 and s75 of the RMA requiring plan provisions to give effect to the RPS.</p>

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	heritage and special character while ensuring that the adverse effects on the values of such areas are avoided where practicable or otherwise remedied or mitigated.	Enabling transportation of freight, goods, people and; Enabling interaction and communication.	
<p>Policy 2 Require that any assessment of environmental effects for an activity that may affect Mana Whenua values includes an appropriate assessment of adverse effects on those values, and how those effects may be avoided, remedied or mitigated, including through making provision for Mana Whenua to exercise kaitiakitanga and the adoption of the Auckland Unitary Plan's Accidental Discovery Rule (E11.6.1).</p>	<p>B6.3 Recognising Mana Whenua values B6.3.1 (1) Mana Whenua values, mātauranga and tikanga are properly reflected and accorded sufficient weight in resource management decision-making. (2) The mauri of, and the relationship of Mana Whenua with, natural and physical resources including freshwater, geothermal resources, land, air and coastal resources are enhanced overall. (3) The relationship of Mana Whenua and their customs and traditions with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, natural resources or historic heritage values is recognised and provided for. B6.3.2 Policies (3) Ensure that any assessment of environmental effects for an activity that may affect Mana Whenua values includes an appropriate assessment of adverse effects on those values. (4) Provide opportunities for Mana Whenua to be involved in the integrated management of natural and physical resources in ways that do all of the following: (a) recognise the holistic nature of the Mana Whenua world view; (b) recognise any protected customary right in accordance with the Marine and Coastal Area (Takutai Moana) Act 2011; and (c) restore or enhance the mauri of freshwater and coastal ecosystems. B6.5 Protection of Mana Whenua Cultural Heritage 6.5.1 (1) The tangible and intangible values of Mana Whenua cultural heritage are identified, protected and enhanced. (2) The relationship of Mana Whenua with their cultural heritage is provided for. B6.5.2(1) Protect Mana Whenua cultural and historic heritage sites and areas which are of significance to Mana Whenua. B6.5.2 (2) Identify and evaluate Mana Whenua cultural and historic heritage sites, places and areas... B6.5.2(6) Protect Mana Whenua cultural heritage that is uncovered during subdivision, use and development by all of the following: (a) requiring a protocol to be followed in the event of accidental discovery of kōiwi, archaeology or artefacts of Māori origin; (b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and (c) requiring appropriate measures to avoid, remedy or mitigate further adverse effects.</p>	<p>E3 Lakes, rivers, streams and wetlands E3.3 (5) Avoid significant adverse effects, and avoid, remedy or mitigate other adverse effects of activities in, on, under or over the beds of lakes, rivers, streams or wetlands on: (a) the mauri of the freshwater environment; and (b) Mana Whenua values in relation to the freshwater environment. (6) Manage the adverse effects on Mana Whenua cultural heritage that is identified prior to, or discovered during, subdivision, use and development by: (a) complying with the protocol for the accidental discovery of kōiwi, archaeology and artefacts of Māori origin; (b) undertaking appropriate actions in accordance with mātauranga and tikanga Māori; and (c) undertaking appropriate measures to avoid adverse effects, or where adverse effects cannot be avoided, effects are remedied or mitigated.</p>	<p>The proposed policy is included so that the views of mana whenua can be recognised and taken into account regarding any future proposal under the precinct provisions. This policy aligns with the RPS and the regional plan provisions which require effects on mana whenua values to be appropriately assessed and managed. Therefore the proposed objective gives effect to s67 and s75 of the RMA requiring objectives to give effect to the RPS.</p>
<p>Policy 3 Discharges of contaminants into water, land and air from the Auckland Regional Landfill's operations shall avoid where practicable, and otherwise minimise, all of the following: a. adverse effects on the quality of freshwater, including from</p>	<p>B3 Infrastructure, transport and energy B3.2 Infrastructure B3.2.1 (3) Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on: (a) the quality of the environment and, in particular, natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character; (b) the health and safety of communities and amenity values.</p>	<p>E1 Water quality and integrated management E1.3 Policies E1.3 (1) Manage discharges, until such a time as objectives and limits are established in accordance with Policy E1.3 (7), having regard to: The National Policy Statement for Freshwater Management National Bottom Lines; The Macroinvertebrate Community Index as a guideline for freshwater ecosystem health associated with different land uses within catchments in accordance with Policy E1.3(2); or</p>	<p>The proposed policy is included to ensure the adverse effects of discharges from any future proposal under the precinct provisions are appropriately managed. This policy aligns with the RPS and the regional plan provisions which require effects from discharges to be avoided, or otherwise managed. Therefore the proposed objective gives effect to s67 and s75 of the RMA requiring objectives to give effect to the RPS.</p>

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<p>bacterial contamination and sediment;</p> <p>b. adverse effects from contaminants, and the potential for these to enter freshwater from both point and non-point sources;</p> <p>c. adverse effects on Mana Whenua values associated with coastal water, freshwater and geothermal water, including wāhi tapu, wāhi taonga and mahinga kai;</p> <p>d. adverse effects on the water quality of catchments and aquifers that provide water for domestic and municipal supply; and</p> <p>e. adverse effects on the quality of air, including from the discharge of contaminants and odour;</p> <p>including through the adoption of the best practicable option for the treatment and discharge of stormwater, the use of industry best practice lining system, adoption of appropriate waste acceptance criteria informed by up-to-date knowledge of contaminants of concern, and the provision of an appropriate buffer within the precinct</p>	<p>B3.2.1 (8) The adverse effects of infrastructure are avoided, remedied or mitigated.</p> <p>B7 Natural Resources</p> <p>B7.4 Coastal water, freshwater and geothermal water</p> <p>B7.4.1 (4) The adverse effects of point and non-point discharges, in particular stormwater runoff and wastewater discharges, on coastal waters, freshwater and geothermal water are minimised and existing adverse effects are progressively reduced.</p> <p>B7.4.1 (5) The adverse effects from changes in or intensification of land use on coastal water and freshwater quality are avoided, remedied or mitigated.</p> <p>B7.4.1 (6) Mana Whenua values, mātauranga and tikanga associated with coastal water, freshwater and geothermal water are recognised and provided for, including their traditional and cultural uses and values.</p> <p>B7.4.2 (7) Manage the discharges of contaminants into water from subdivision, use and development to avoid where practicable, and otherwise minimise, all of the following: (a) significant bacterial contamination of freshwater and coastal water; (b) adverse effects on the quality of freshwater and coastal water; (c) adverse effects from contaminants, including nutrients generated on or applied to land, and the potential for these to enter freshwater and coastal water from both point and non-point sources; (d) adverse effects on Mana Whenua values associated with coastal water, freshwater and geothermal water, including wāhi tapu, wāhi taonga and mahinga kai; and (e) adverse effects on the water quality of catchments and aquifers that provide water for domestic and municipal supply.</p> <p>B7.4.2 (8) Minimise the loss of sediment from subdivision, use and development, and manage the discharge of sediment into freshwater and coastal water, by: (a) promoting the use of soil conservation and management measures to retain soil and sediment on land; and (b) requiring land disturbing activities to use industry best practice and standards appropriate to the nature and scale of the land disturbing activity and the sensitivity of the receiving environment</p> <p>B7.5 Air</p> <p>(1) The discharge of contaminants to air from use and development is managed to improve region-wide air quality, enhance amenity values in urban areas and to maintain air quality at appropriate levels in rural and coastal areas. (2) Industry and infrastructure are enabled by providing for reduced ambient air quality amenity in appropriate locations. (3) Avoid, remedy or mitigate adverse effects from discharges of contaminants to air for the purpose of protecting human health, property and the environment.</p> <p>B6.3.1 (2) The mauri of, and the relationship of Mana Whenua with, natural and physical resources including freshwater, geothermal resources, land, air and coastal resources are enhanced overall.</p> <p>(3) Ensure that any assessment of environmental effects for an activity that may affect Mana Whenua values includes an appropriate assessment of adverse effects on those values.</p> <p>(6) Require resource management decisions to have particular regard to potential impacts on all of the following: (a) the holistic nature of the Mana Whenua world view; (b) the exercise of kaitiakitanga; (c) mauri, particularly in relation to freshwater and coastal resources; (d) customary</p>	<p>Other indicators of water quality and ecosystem health.</p> <p>E.1.3 (2) Manage discharges, subdivision, use, and development that affect freshwater systems to:</p> <p>Maintain or enhance water quality, flows, stream channels and their margins and other freshwater values, where the current condition is above National Policy Statement for Freshwater Management National Bottom Lines and the relevant Macroinvertebrate Community Index guideline in Table E1.3.1 below or</p> <p>Enhance water quality, flows, stream channels and their margins and other freshwater values where the current condition is below national bottom lines or the relevant Macroinvertebrate Community Index guideline in Table E.1.3.1.</p> <p>E.1.3 (3) Require freshwater systems to be enhanced unless existing intensive land use and development has irreversibly modified them such that it practicably precludes enhancement.</p> <p>E.1.3 (4) When considering any application for a discharge, the Council must have regard to the following matters:</p> <p style="padding-left: 40px;">The extent to which the discharge would avoid contamination that will have an adverse effect on the life-supporting capacity of freshwater including on any ecosystem associated with freshwater; and</p> <p>The extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided.</p> <p>E.1.3 (5) When considering any application for a discharge the Council must have regard to the following matters:</p> <p style="padding-left: 40px;">The extent to which the discharge would avoid contamination that will have an adverse effect on the health of people and communities as affected by their secondary contact with fresh water;</p> <p style="padding-left: 40px;">The extent to which it is feasible and dependable that any more than minor adverse effect on the health of people and communities as affected by their secondary contact with fresh water resulting from the discharge would be avoided.</p> <p>E1.3 (11) Avoid as far practicable, or otherwise minimise or mitigate adverse effects of stormwater diversions and discharges, having particular regard to:</p> <p style="padding-left: 40px;">The nature, quality, volume and peak flow of the stormwater runoff;</p> <p style="padding-left: 40px;">The sensitivity of freshwater systems and coastal waters, including the Hauraki Gulf Marine Park;</p> <p style="padding-left: 40px;">The potential for the diversion and discharge to create or exacerbate flood risks;</p> <p style="padding-left: 40px;">Options to manage stormwater on-site or the use of communal stormwater management measures;</p> <p style="padding-left: 40px;">Practical limitations in respect of the measures that can be applied; and</p> <p style="padding-left: 40px;">The current state of receiving environments.</p> <p>E1.3 (13) Require stormwater quality or flow management to be achieved on-site unless there is a downstream communal device or facility designed to cater for the site's stormwater runoff.</p> <p>E13 Cleanfills, managed fills and landfills</p>	

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	<p>activities, including mahinga kai; (e) sites and areas with significant spiritual or cultural heritage value to Mana Whenua; and (f) any protected customary right in accordance with the Marine and Coastal Area (Takutai Moana) Act 2011.</p>	<p>E13.3 (1) Avoid significant adverse effects and remedy or mitigate other adverse effects of cleanfills, managed fills and landfills on lakes, rivers, streams, wetlands, groundwater and the coastal marine area.</p> <p>E13.3 (2) Require cleanfills, managed fills and landfills to be sited, and where appropriate, designed and constructed, to avoid the risk of land instability.</p> <p>E13.3 (3) Require cleanfills, managed fills and landfills to be designed and operated in accordance with relevant industry best practice.</p> <p>E13.3 (4) Avoid adverse effects from new landfills.</p> <p>E14 Air quality</p> <p>E14.2 Objectives</p> <p>(1) Air quality is maintained in those parts of Auckland that have high air quality, and air quality is improved in those parts of Auckland that have low to medium air quality.</p> <p>(2) Human health, property and the environment are protected from significant adverse effects from the discharge of contaminants to air.</p> <p>(3) Incompatible uses and development are separated to manage adverse effects on air quality from discharges of contaminants into air and avoid or mitigate reverse sensitivity effects.</p> <p>(4) The operational requirements of light and heavy industry, other location-specific industry, infrastructure, rural activities and mineral extraction activities are recognised and provided for.</p> <p>Policies 14.3</p> <p>E14.3(1) Manage the discharge of contaminants to air, including by having regard to the Auckland Ambient Air Quality Targets in Table E14.3.1, so that significant adverse effects on human health, including cumulative adverse effects, are avoided, and all other adverse effects are remedied or mitigated.</p> <p>E14.3(3) In the Rural – Rural Production Zone, Rural – Mixed Rural Zone, Rural – Rural Coastal Zone, Future Urban Zone, Auckland Council District Plan - Hauraki Gulf Islands Rural 1-3 and Landform 1-7: (a) recognise that rural air quality is generally a result of dust and odours, and other emissions generated by rural production activities; (b) avoid, remedy or mitigate adverse effects of dust and odour discharges; (c) provide for minor and localised elevation of dust and odour levels where the air discharge is from: (i) rural production activities or rural industry; or (ii) the operation of infrastructure or location specific industry; or (iii) mineral extraction activities; or (iv) activities undertaken by the New Zealand Defence Force for training and munitions testing; or (v) for emergency services training; (d) require adequate separation between use and development which discharge dust and odour and activities that are sensitive to these adverse effects.</p> <p>E14.3 (8) Avoid, remedy or mitigate the adverse effects on air quality from discharges of contaminants into air by:</p> <p style="padding-left: 40px;">Using the best practicable option for emission control and management practices that are appropriate to the scale of the discharge and potential adverse effects; or</p> <p style="padding-left: 40px;">Adopting a precautionary approach, where there is uncertainty and a risk of significant adverse effects or irreversible harm to the environment from air discharges.</p> <p>E14.3 (9) Avoid, remedy or mitigate the adverse effects on air quality beyond the boundary of the premises where the discharge of contaminants to air is occurring, in relation to:</p>	

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		<p>Noxious or dangerous effects on human health, property or the environment from hazardous air pollutants; or</p> <p>Overspray effects on human health, property or the environment.</p> <p>E14.3 (10) Require large scale combustion sources that discharge contaminants to air to avoid, remedy or mitigate any adverse effects on aircraft safety.</p>	
<p>Policy 4</p> <p>Subject to policy 5, provide for works within freshwater systems in order to provide for the development and operation of the Auckland Regional Landfill, including the reclamation of streams within Sub-Precinct A, and culverts or bridges required to access the landfill.</p>	<p>B3 Infrastructure, transport and electricity</p> <p>B3.2 Infrastructure</p> <p>B3.2.1 (3) Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on: (a) the quality of the environment and, in particular, natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character; (b) the health and safety of communities and amenity values.</p> <p>B3.2.1 (4) The functional and operational needs of infrastructure are recognised.</p> <p>B3.2.2 (3) Provide for the locational requirements of infrastructure by recognising that it can have a functional or operational need to be located in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character.</p> <p>B7 Natural Resources</p> <p>B7.3 Freshwater systems</p> <p>B7.3 (4) Avoid the permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands and their margins, unless all of the following apply: <u>(a) it is necessary to provide for:</u> (i) the health and safety of communities; or (ii) the enhancement and restoration of freshwater systems and values; or (iii) the sustainable use of land and resources to provide for growth and development; <u>or (iv) infrastructure;</u> <u>(b) no practicable alternative exists;</u> <u>(c) mitigation measures are implemented to address the adverse effects arising from the loss in freshwater system functions and values; and (d) where adverse effects cannot be adequately mitigated, environmental benefits including on-site or off-site works are provided.</u></p>	<p>E2 Water quantity, allocation and use</p> <p>E2.3 (19) Avoid damming water in the Natural Lake Management Areas Overlay, Wetland Management Areas Overlay and Natural Stream Management Areas Overlay other than where: (a) these areas are in a Water Supply Management Areas Overlay and the damming is necessary for municipal water supply; (b) the damming is necessary for the protection or maintenance of the natural values of the management area and there are no practicable alternative methods to achieve this protection; or (c) <u>the damming is necessary for managing hazards or the provision of infrastructure and there are no practicable alternatives to damming the water.</u></p> <p>E3 Lakes, rivers, streams and wetlands</p> <p>E3.2 (1) Degraded freshwater systems are enhanced.</p> <p>E3.2 (2) Loss of freshwater systems is minimised. (4) Structures in, on, under or over the bed of a lake, river, stream or wetland are provided for where there are functional or operational needs for the structure to be in that location, or traverse that area.</p> <p>E3.2 (6) Reclamation and drainage of the bed of a lake, river, stream and wetland is avoided, unless there is no practicable alternative</p> <p>E3.3 (7) Provide for the operation, use, maintenance, repair, erection, reconstruction, placement, alteration or extension, of any structure or part of any structure in, on, under, or over the bed of a lake, river, stream or wetland, and any associated diversion of water, where the structure complies with all of the following: (a) there is no practicable alternative method or location for undertaking the activity outside the bed of the lake, river, stream or wetland; (b) the structure is designed to be the minimum size necessary for its purpose to minimise modification to the bed of a lake, river, stream or wetland; (c) the structure is designed to avoid creating or increasing a hazard; (d) the structure is for any of the following: (i) required as part of an activity designed to restore or enhance the natural values of any lakes, rivers, streams or wetlands and their margins, or any adjacent area of indigenous vegetation or habitat of indigenous fauna; (ii) designed to maintain and/or enhance public access to, over and along any lake, river, stream or wetland and their margins; (iii) necessary to provide access across a lake, river, stream or wetland; (iv) associated with infrastructure; (v) necessary for flood protection and the safeguarding of public health and safety; or (vi) required for the reasonable use of production land. (e) the structure avoids significant adverse effects and avoids, remedies or mitigates other adverse effects on Mana Whenua values associated with freshwater resources, including wāhi tapu, wāhi taonga and mahinga kai.</p> <p>E3.3 (9) Provide for the excavation, drilling, tunnelling, thrusting or boring or other disturbance, and the depositing of any substance in, on or under the bed of a lake, river, stream or wetland, where it complies with all of the following: (a) there is no practicable alternative method or location for</p>	<p>The proposed policy is to provide for infrastructure activities within freshwater systems within the precinct. This policy aligns with the RPS and the regional plan provisions which provide for infrastructure to have effects on freshwater systems where there are no practicable alternatives. The wider AUP recognises that most if not all significant infrastructure activities will result in adverse effects within the footprint of the infrastructure development. Therefore the proposed policy gives effect to s67 and s75 of the RMA requiring plan provisions to give effect to the RPS.</p>

Proposed Objectives and Policies	Regional Policy Statement	Auckland Unitary Plan	Comment
		<p>undertaking the activity outside the lake, river, stream or wetland; (b) the activity is required for any of the following: (i) as part of an activity designed to restore or enhance the natural values of any lake, river, stream or wetland, or any adjacent area of indigenous vegetation or habitat of indigenous fauna; (ii) to maintain and/or enhance public access to, over and along any lake, river, stream or wetland and associated margins; (iii) to provide access across a lake, river, stream or wetland; (iv) for the operation, use, maintenance, repair, development or upgrade of infrastructure; (v) to restore, maintain or improve access to wharves and jetties or mooring areas, or to maintain the navigation and safety of existing channels; (vi) to reduce the risk of occurrence or the potential adverse effects of flooding, erosion, scour or sediment depositing; (vii) for the reasonable use of production land; or (viii) to undertake mineral extraction activities and mitigation and following that, offsetting can be practicably implemented. (c) the disturbance avoids significant adverse effects and avoids, remedies or mitigates other adverse effects on Mana Whenua values associated with freshwater resources, including wāhi tapu, wāhi taonga and mahinga kai.</p> <p>E3.3 (13) Avoid the reclamation and drainage of the bed of lakes, rivers, streams and wetlands, including any extension to existing reclamations or drained areas unless all of the following apply: (a) there is no practicable alternative method for undertaking the activity outside the lake, river, stream or wetland; (b) for lakes, permanent rivers and streams, and wetlands the activity is required for any of the following: (i) as part of an activity designed to restore or enhance the natural values of any lake, river, stream or wetland, any adjacent area of indigenous vegetation or habitats of indigenous fauna; (ii) for the operation, use, maintenance, repair, development or upgrade of infrastructure; or (iii) to undertake mineral extraction activities; and (c) the activity avoids significant adverse effects and avoids, remedies or mitigates other adverse effects on Mana Whenua values associated with freshwater resources, including wāhi tapu, wāhi taonga and mahinga kai.</p>	
<p>Policy 5 Subject to policy 6, require adverse effects from the Auckland Regional Landfill's construction and operation on freshwater systems to be avoided, remedied or mitigated generally and encourage in particular, the use of offsetting or compensation to manage significant residual adverse effects associated with the unavoidable reclamation of stream beds and associated loss of freshwater systems.</p>	<p>B3 Infrastructure, transport and electricity B3.2 Infrastructure B3.2.1 (8) The adverse effects of infrastructure are avoided, remedied or mitigated. B3.2.2 (6) Enable the development, operation, maintenance and upgrading of infrastructure in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character while ensuring that the adverse effects on the values of such areas are avoided where practicable or otherwise remedied or mitigated. B3.2.2 (8) Avoid, remedy or mitigate the adverse effects from the construction, operation, maintenance or repair of infrastructure.</p> <p>B7 Natural Resources B7.3 Freshwater systems B7.3.1 (2) Loss of freshwater systems is minimised. B7.3.2. (3) Promote the enhancement of freshwater systems identified as being degraded to progressively reduce adverse effects.</p>	<p>E3 Lakes, rivers, streams and wetlands E3.2 (3) Significant residual adverse effects on lakes, rivers, streams or wetlands that cannot be avoided, remedied or mitigated are offset where this will promote the purpose of the Resource Management Act 1991. E3.3 (2) Manage the effects of activities in, on, under or over the beds of lakes, rivers, streams or wetlands outside the overlays identified in Policy E3.3(1) by: (a) avoiding where practicable or otherwise remedying or mitigating any adverse effects on lakes, rivers, streams or wetlands; and (b) where appropriate, restoring and enhancing the lake, river, stream or wetland. E3.3 (4) Restoration and enhancement actions, which may form part of an offsetting proposal, for a specific activity should: (a) be located as close as possible to the subject site; (b) be 'like-for-like' in terms of the type of freshwater system affected; (c) preferably achieve no net loss or a net gain in the natural values including ecological function of lakes, rivers, streams or wetlands; and (d) consider the use of biodiversity offsetting as outlined in Appendix 8 Biodiversity offsetting</p>	<p>Policies 5 and 6 are intended to be read together. The proposed policies are included to require future applications under the precinct to demonstrate that loss of freshwater systems has been minimised where possible in the design process, while recognising that the nature of the activity and its role as vital infrastructure to the region, will likely mean that complete avoidance of freshwater system loss is not able to be achieved, and that offsetting and compensation is provided for to address adverse effects. This is consistent with the objectives and policies of the AUP which provide for the use of offsetting and compensation to address significant residual adverse effects on freshwater systems. It is noted that whilst the AUP expresses a preference for full offset, it does not require full offset of adverse effects to be achieved. It will not always be practicable or appropriate to require full offset to be achieved. Therefore the proposed policies effect to s67 and s75 of the RMA requiring plan provisions to give effect to the RPS.</p>

Proposed Objectives and Policies	Regional Policy Statement	Auckland Unitary Plan	Comment
	B7.3.2. (6) Restore and enhance freshwater systems where practicable when development, change of land use, and subdivision occur.		
<p>Policy 6 Where effects cannot be avoided, remedied or mitigated, provide for offsetting or compensation, thereby enabling the Auckland Regional Landfill as infrastructure, while recognising that:</p> <p>a. not all significant residual adverse effects will be able to be fully offset or compensated, however a ratio of at least 1:1 is expected;</p> <p>b. any offset or compensation package will need to be staged over the long term and sites should be identified in the following order of preference – within the precinct, within the Hōteio River catchment, within the Kaipara Harbour catchment, and within the Auckland Region.</p>	<p>B3 Infrastructure, transport and electricity B3.2 Infrastructure B3.2.1 (4) The functional and operational needs of infrastructure are recognised. B3.2.2. (3) Provide for the locational requirements of infrastructure by recognising that it can have a functional or operational need to be located in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character. B3.2.2. (6) Enable the development, operation, maintenance and upgrading of infrastructure in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character while ensuring that the adverse effects on the values of such areas are avoided where practicable or otherwise remedied or mitigated. B7 Natural Resources B7.3 Freshwater systems B7.3.1 (2) Loss of freshwater systems is minimised. B7.3.2 (4) Avoid the permanent loss and significant modification or diversion of lakes, rivers, streams (excluding ephemeral streams), and wetlands and their margins, unless all of the following apply: <u>(a) it is necessary to provide for:</u> (i) the health and safety of communities; or (ii) the enhancement and restoration of freshwater systems and values; or (iii) the sustainable use of land and resources to provide for growth and development; or (iv) <u>infrastructure;</u> (b) <u>no practicable alternative exists;</u> (c) <u>mitigation measures are implemented to address the adverse effects arising from the loss in freshwater system functions and values; and (d) where adverse effects cannot be adequately mitigated, environmental benefits including on-site or off-site works are provided.</u></p>	<p>E3 Lakes, rivers, streams and wetlands E3.3 (2) Manage the effects of activities in, on, under or over the beds of lakes, rivers, streams or wetlands outside the overlays identified in Policy E3.3(1) by: (a) avoiding where practicable or otherwise remedying or mitigating any adverse effects on lakes, rivers, streams or wetlands; and (b) where appropriate, restoring and enhancing the lake, river, stream or wetland. E3.3 (4) Restoration and enhancement actions, which may form part of an offsetting proposal, for a specific activity should: (a) be located as close as possible to the subject site; (b) be 'like-for-like' in terms of the type of freshwater system affected; (c) preferably achieve no net loss or a net gain in the natural values including ecological function of lakes, rivers, streams or wetlands; and (d) consider the use of biodiversity offsetting as outlined in Appendix 8 Biodiversity offsetting.</p>	

Appendix F: Consultation record for consent application and PPC

Consultation Record as at 27 February 2020

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
13/04/2018	Phone call	B Horide	Iwi Bill Kapea	Follow up on meeting (CW/BH/BK 26/3/18)	BH will send WMNZ's write-up of liaison at Redvale. Site visit being arranged for later in April.
27/04/2018	Phone call	B Horide	Iwi Bill Kapea	To stay in touch.	Project description will be sent to Bill Kapea along with a draft copy of the brochure.
15/05/2018	Meeting	B Horide C Wills	Iwi Bill Kapea	Site visit.	Better understanding of the site and possible issues.
24/05/2018	Meeting	I Kennedy B Horide C Wills	Iwi Bill Kapea Rachel Batchelor (T+T)	Discussion on iwi contacts.	Corrections to be made to the draft brochure.
14/06/2018	Email	T Nickels	Iwi Haahi Walker (Ngāti Whatua)	Notice of WMNZ's interest for a large site development project in their area.	No response required. WMNZ will provide an update upon receipt of OIO approval.
14/06/2018	Email	T Nickels	Iwi Mook Hohneck (Ngāti Manuhiri)	Notice of WMNZ's interest for a large site development project in their area.	No response required. WMNZ will provide an update upon receipt of OIO approval.
5/09/2018	Email	B Horide	Iwi Fiona McKenzie (Ngāti Manuhiri)	Discussion on engagement with Ngāti Manuhiri.	Iwi prefer that WMNZ engage with them directly rather than through a third party. Requested to be re-sent all documentation about the proposal.
13/09/2018	Email	B Horide	Iwi Mook Hohneck, Fiona McKenzie (Ngāti Manuhiri)	WMNZ is awaiting OIO approval of a preferred site that is in a tributary to the Hōteoro River. Presentation of proposal.	Bruce advised that WMNZ is willing to meet Ngāti Manuhiri face to face to present the proposal. WMNZ (Tom Nickels) to provide an update next week. (19/09/2018)
13/09/2018	Email	B Horide	Iwi Bill Kapea>Haahi Walker, Richard Nahi (Ngāti rango/ Ngāti Whatua)	WMNZ is awaiting OIO approval of a preferred site that is in a tributary to the Hōteoro River. Presentation of proposal.	Bruce advised that WMNZ is willing to meet Ngāti Manuhiri face to face to present the proposal. WMNZ (Tom Nickels) to provide an update next week. (19/09/2018)

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions	
		Internal	External Type Name			
16/09/2018	Email	TN> Sir Rob Fenwick			Tom informed Rob that WMNZ received OIO approval.	WMNZ to update Rob as required.
17/09/2018	Email	MC	Politician	Maggie Tait, secretary to Hon Eugenie Sage	Informing of project.	WMNZ to provide more detail if required.
19/09/2018	Phone call	T Nickels	Iwi	Richard Nahi (Ngāti rango)	Advised Iwi on location and proposed landfill. Tom advised that Iwi are a priority and WMNZ would like input from them into the project.	Richard is willing to meet with WMNZ and will talk to Bill Kapea direct to align his diary.
19/09/2018	Phone call	T Nickels	Iwi	Haahi Walker (Ngāti Whatua)	Advised Iwi on location of proposed landfill. Tom advised Haahi that Iwi are a priority.	Haahi is willing to meet with WMNZ and will talk to Bill Kapea direct to align his diary.
19/09/2018	Phone call	T Nickels	Iwi	Mook Hohneck (Ngāti Manuhiri)	Advised Iwi on location of proposed landfill. Tom advised Mook that Iwi are a priority.	Mook is willing to meet with WMNZ informally with his assistant at Lunn Ave. Tom to provide Mook contact details.
19/09/2018	Email	T Nickels	Iwi	Mook Hohneck (Ngāti Manuhiri)	Tom provided Mook contact details.	Mook will contact WMNZ to arrange a time he can meet at Lunn Ave.
20/09/2018	Phone call	T Nickels	Politician	Dean Kimpton COO Auckland Council (CEO Stephen Town on AL)	Received OIO approval, advised approximate location and plan for RMA consent.	Dean undertook to send a note to Stephen Town (CEO) and Mayor Phil Goff. Dean to advise whether Tom to call Phil. WMNZ comms team available for assistance.
20/09/2018	Phone call	T Nickels	Politician	Nirupa George assistant to the Mayor	WMNZ have received OIO approval for development of proposed new landfill and approximate location. WMNZ not planning on being proactive in the media.	Nirupa will wait for brief from Dean Kimpton then pass onto the Mayor. WMNZ prepared to provide further information.
21/09/2018	Phone call	B Horide	Neighbour	Barry Rose 74 Spindler Road (Property #4)	Arranging to meet and go through an overview of the landfill proposal.	Arranged a meeting for 4:00pm 21/09/18.
21/09/2018	Meeting	B Horide	Neighbour	Barry Rose 74 Spindler Road (Property #4)	Informing of project to develop a proposed landfill. Left Proposed Landfill Introductory Brochure.	Interested in use of airfield. Trees, access road won't effect. Barry Rose provided contacts for other neighbours.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
21/09/2018	Meeting	B Horide	Neighbour Mr Lee Laughton 762 SH1 (Property #19)	Informing of project to develop a proposed landfill. Left Proposed Landfill Introductory Brochure.	No response or comments.
21/09/2018	Phone call	I Kennedy	Neighbour Ken Price 1232a SH1, 64 Spindler Road. (Izard-Price, P.D, Price, K.I. & Wiles, J.S) (Property #9)	Informing of project and trying to arrange a meeting to explain the proposal in further detail.	Ken will advise IK with a suitable time to meet.
21/09/2018	Phone call	I Kennedy	Neighbour Tim Harrison 1232A SH1 (Property #10)	Informing of project and trying to arrange a meeting to explain proposal.	IK to visit Tim at home Monday 24/9/18 afternoon. IK explained briefly what a landfill is.
21/09/2018	Meeting	B Horide	Neighbour 776 SH1 (T+T map #18)	Attempting to inform about project. No form of contact.	Attempt to try visit again by waiting at gate. 'Beware of dogs' sign on gate.
21/09/2018	Phone call	I Kennedy	Neighbour Susan Bretherton Waterfall Farm (Property #22)	Attempting to speak to Susan.	IK spoke to Susan's daughter and advised call back in half an hour.
21/09/2018	Phone call	I Kennedy	Neighbour Susan Bretherton Waterfall Farm (Property #22)	Informing of project and public open day. Attempting to arrange time to meet.	Waterfall Farm has regular meetings, Susan offered to report back to others. Susan will be overseas for 4 weeks, next farm meeting November. Susan to contact other farm shareholders and advise of suitable time.
21/09/2018	Phone call	I Kennedy	Neighbour Maureen and Ian McDougall 1207 SH1	Informing of project and trying to arrange a meeting to explain proposal.	IK to visit 1:00pm Wednesday.
21/09/2018	Phone call	M Cadman	Iwi Natasha Topia, Hokai Nuku	Informing about the project.	Marsha left a voicemail for Natasha to phone back.
21/09/2018	Phone call	M Cadman	Iwi Natasha Topia, Hokai Nuku	Informing about the project.	MC returning missed calls from, left voicemail.
22/09/2018	Phone call	B Horide	Neighbour Barry Rose 74 Spindler Road (Property #4)	Barry is interested in what will happen to assets in airfield club rooms.	BH to talk to WMNZ team and will advise Barry next week about what will happen to chattels in club rooms.
24/09/2018	Phone call	I Kennedy	Neighbour Phil and Sue Tomlinson 78 Spindler Road (Property #6)	Attempting to arrange a meeting time to go through the proposal.	IK left voicemail for Phil and Sue to call back.
24/09/2018	Phone call	I Kennedy	Neighbour Phil and Sue Tomlinson 78 Spindler Road (Property #6)	Sue phoned Ian back.	IK arranged for BH and CW to visit 24/09/18.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions	
		Internal	External Type Name			
24/09/2018	Meeting	B Horide C Wills	Neighbour	Phil and Sue Tomlinson 78 Spindler Road (Property #6)	Informing of project to develop landfill. Interested in if they can continue riding in the area.	CW advised that they can continue riding at this stage.
24/09/2018	Phone call	I Kennedy	Landowner	Peter Spencer, Matariki Forests (Property #8)	Informing of OIO approval and settlement date.	IK advised to refer all queries Peter may have to WMNZ. IK advised of iwi. Peter to advise stakeholders at Matariki. IK to email outline of consultation.
24/09/2018	Meeting	I Kennedy	Neighbour	Tim Harrison 1232A SH1 (wife and daughter) (Property #10)	Informing of project	Tim wants to buy airstrip and have ability to walk/ cycle across the farm.
24/09/2018	Meeting	B Horide C Wills	Neighbour	Tracy Wood 84 Spindler Road (Property #13)	Informing of project to develop a proposed landfill. Left Proposed Landfill Introductory Brochure. Interested in WMNZ ownership.	Confirmed that she will send contact numbers for other neighbours.
24/09/2018	Meeting	B Horide	Neighbour	Gallagher R.N 792 SH1 (Property #17)	Informing of project.	BH left brochure. No stated concerns at time.
24/09/2018	Meeting	B Horide	Neighbour	Leanne Barry 776 SH1 (Property #18)	Informing of project. Main concern is traffic.	Significant concerns raised.
24/09/2018	Phone call	I Kennedy	Neighbour	Les Jones, Waterfall Farm (10 Henley Road, Mount Eden, Auckland 1024) (Property #22)	Informing of project and attempting to set up a time to meet. Main issue is the Wawhiu River.	12 shareholders in Waterfall Farm. Les will get back with suitable meeting details.
24/09/2018	Meeting	C Wills	Neighbour	Purvis, Craig and Mandy 761a SH1	Informing of project.	No stated concerns at time.
24/09/2018	Email	ARL	Neighbour	Georgia Robson, daughter of Purvis, Craig and Mandy, 761a SH1	Inquiring about horse riding.	Inquiring if she can use the forestry roads for horse riding over the summer. CW to respond.
24/09/2018	Phone call	I Kennedy	Neighbour	Chrissie Longworth	Attempting to contact regarding Springhill Farm.	IK to call back later.
24/09/2018	Phone call	I Kennedy	Neighbour	Chrissie Longworth	Attempting to contact regarding Springhill Farm.	IK left voicemail on Chrissie's mobile, will call back later.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions	
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24/09/2018	Email	B Horide	Iwi	Bill Kapea (Haahi Walker, Richard Nahi)	Confirmation of WMNZ initial meeting with Ngāti Whatua/Ngāti rango.	Meeting date confirmed for 9/10/18 at Redvale
25/09/2018	Phone call	I Kennedy	Neighbour	Debbie Sarney (and Ian Sarney) 72 Spindler Road (Property #3)	Informing of project overview and setting up meeting. Concerns with hazardous materials leaching from the landfill.	Susan King had passed on message. IK arranged for CW to visit 26/09/18.
25/09/2018	Phone call	B Horide	Neighbour	Robyn and Richard Brown 76 Spindler Road (Property #6)	Informing of project and setting up a meeting to go through this with them in further detail.	Bruce to meet Richard 28/09/18.
25/09/2018	Email	B Horide	Neighbour	Robyn and Richard Brown 76 Spindler Road (Property #6)	Informing of project.	BH sent confirmation details of project and contact details for WMNZ team.
25/09/2018	Meeting	I Kennedy	Neighbour	Waterfall Farm Les Jones, Susan Bretherton and 4 other shareholders. 10 Henley Road, Mt Eden (Property #22)	Informing of project.	Appear to have one house on the property but no one stays permanently.
25/09/2018	Email	T Nickels		All WMNZ managers	Informing of project.	Advised all managers of project.
25/09/2018	Phone call	ARL Phone	Public Interest	Tom Roberts Allen's Auto Services, Warkworth	Wants to know more about the project.	WMNZ to call back 09 425 9363.
25/09/2018	Phone call	T Nickels	Iwi	Mook Hohneck (Ngāti Manuhiri)	Mook was passing by Lunn Ave and tried to meet with Tom.	Tom was overseas. Mook to phone back another time to arrange time to meet Tom.
25/09/2018	Email	ARL	Media	Caroline Williams, Rodney Times/ Stuff	Media Inquiry	Need response in 24 hours. MC actioning.
25/09/2018	Phone call	ARL	Public Interest	Tom Roberts	Wanting information about community benefits.	BH to call back.
25/09/2018	Phone call	B Horide	Consultant/Contractor	Sarah Ho, NZTA	Informing of project	Left voicemail that consultation has begun.
25/09/2018	Phone call	ARL (B Horide)	Public Interest	Tom Roberts	Informing of project and community benefits.	Is WMNZ interested in community project, dirt bike tracks. BH to email ARL contact details.
25/09/2018	Meeting	C Wills	Neighbour	Barbara McPherson 291 Pricor Road	Informing of project	Main topic is roading improvement.
25/09/2018	Email	ARL	Media	Sally Marden, Mahurangi Matters	Interview with Tom	Forwarded to MC who will respond.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
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25/09/2018	Phone call	CSR> S Fogarty	Media Sally Marden, Mahurangi Matters	Residential inquiry	Media inquiry.
25/09/2018	Email	B Horide	Public Interest Tom Roberts	Contact details for ARL	Emailed details.
26/09/2018	Email	M Beretta	Neighbour Berger, Nicky and Dan	Informing of Mahurangi Matters article on Facebook.	
26/09/2018	Meeting	C Wills	Neighbour Dave Fletcher 70 Spindler Road (Property #2)	Attempting to inform of project and go through in further detail.	Asked to reschedule. CW left contact details.
26/09/2018	Meeting	C Wills	Neighbour Debbie Sarney (and Ian Sarney) 72 Spindler Road (Property #3)	Informing of project. Issues are P house demolition waste, odours, leachate, traffic and noise.	No further meeting required.
26/09/2018	Phone call	B Horide	Neighbour Robyn and Richard Brown 76 Spindler Road (Property #6)	Wanting comprehensive maps of the area.	Left voicemail for BH to call.
26/09/2018	Phone call	B Horide	Neighbour Robyn and Richard Brown 76 Spindler Road (Property #6)	Wanting comprehensive maps of the area. Advised WMNZ own land. Robyn's issue is that Chinese purchased land. She wants to know if OIO visited the land before the purchase.	BH to advise.
26/09/2018	Email	ARL	Neighbour Meryl Bacon, Waterfall Farm (Property #22)	Wanting landfill proposal introductory brochure.	Wanted to share brochure with other shareholders. Brochure was uploaded to ARL website.
26/09/2018	Meeting	I Kennedy	Neighbour Maureen and Ian McDougall 1207 SH1	Informing of project.	NZTA are buying them out for SH1 W2W.
26/09/2018	Email	M Cadman	Media Sally Marden, Mahurangi Matters	Response to media inquiry	Advised Tom would be available for an interview next week. Sent PDF of brochure.
26/09/2018	Email	M Cadman	Media Caroline Williams, Rodnet Times/ Stuff	Response to media inquiry	Answers to media questions. Location, traffic, consultation.
26/09/2018	Phone call	M Cadman	Iwi Natasha Topia, Hokai Nuku	Informing of project	Marsha will send an email summary. (26/09/18)
26/09/2018	Email	M Cadman	Iwi Natasha Topia, Hokai Nuku	Informing of project	Summary of project and website details provided.
26/09/2018	Phone call	B Horide	Media Caroline Williams, Rodney Times/ Stuff	Wanting a call back	Forwarded to MC.
26/09/2018	Phone call	B Horide	Consultant/Contractor Sarah Ho, NZTA	Inquiring about project.	Left message for BH to call back.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
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26/09/2018	Phone call	B Horide	Consultant/Contractor Sarah Ho, NZTA	Inquiring about project as NZTA received media request.	Advised of OIO approval. Advised of WMNZ consultation process. NZTA unable to disclose much information until consent application received.
26/09/2018	Newspaper	M Cadman	Media Mahurangi Matters	Media response to Mahurangi Matters	Main topics location, distance from Auckland, consultation.
27/09/2018	Phone call	B Horide	Neighbour Barry Rose 74 Spindler (Property #4)	Repsonse to Barry's question about equipment.	BH left voicemail, advised they can store equipment temporarily there. Discuss Ts and Cs if need be.
27/09/2018	Meeting	I Kennedy	Neighbour Izard-Price 1232 SH1 Ken Price and Philippa Izard-Price Lawyer Jeff Morrison (Property #9)	Izard-price property.	Concerned with loss of property value.
27/09/2018	Phone call	C Wills	Neighbour Ross and Christine McPherson 133 Wayby Road (Property #12)	Informing of project.	Set up meeting for 2/10/18. Do not live in property.
27/09/2018	Phone call	ARL	Neighbour Mandy Purvis		Called ARL 0800 number, unknown number, no message left
27/09/2018	Phone call	ARL	Neighbour Mandy Purvis		Called ARL 0800 number, unknown number, no message left
27/09/2018	Phone call	B Horide	Neighbour Mandy Purvis	Open day dates	BH advised open day dates
27/09/2018	Phone call	B Horide	Recreation Dave Wilmot, Springhill Aviation	Informing of project.	Has personal interest to land (8km NE). Will have a club committe meeting and submit feedback. BH to send contact details.
27/09/2018	Email	B Horide	Recreation Dave Wilmot, Springhill Aviation	Informing of project, follow up from phone call.	BH sent email with contact details for project,
28/09/2018	Phone call	B Horide C Wills	Neighbour Barry Rose 74 Spindler (Property #4)	Aviation club equipment. Main concern is loss of property value.	WMNZ informed Barry that it would be ok to leave the aviation club gear there.
28/09/2018	Meeting	B Horide C Wills	Neighbour Richard Brown 76 Spindler Road (Property #5)	Informing of project. Concerns are traffic and leachate. Richard is a strong advocate for waste by rail.	Issues are traffic- strong advocte for waste by rail, public meeting and concerned about leaching.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions	
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28/09/2018	Meeting	B Horide C Wills	Neighbour	Phil Tomlinson, Sue King 78 Spindler Road Also their daughter from USA and Di who lives in the barn (Property #6)	Informing of project. Main concern is loss of property value. They would like protection and covenanting.	Wish for protection, convenancing. Have a key to forest.
28/09/2018	Meeting	B Horide C Wills	Neighbour	696 SH1	Informing of project	Main concern traffic, declined opportunity to go through brochure.
28/09/2018	Phone call	B Horide	Neighbour	Julie Wood 109 Waiwhiu Road (Property #23)	Attempting to inform of project.	No answer.
1/10/2018	Email	C Wills	Neighbour	Dave Fletcher 70 Spindler Road (Property #2)	Attempting to inform of project.	Made alternative arrangements for meeting.
1/10/2018	Email	C Wills	Neighbour	Dave Fletcher 70 Spindler Road (Property #2)	Attempting to inform of project.	Confirmed time to meet Dave at home.
1/10/2018	Phone call	C Wills	Neighbour	Ross and Christine McPherson 133 Wayby Road (Property #12)	Informing of project.	Confirming time for meeting tomorrow.
1/10/2018	Phone call	B Horide	Neighbour	Frogpool Farm	Attempting to inform of project.	No answer.
1/10/2018	Phone call	B Horide	Neighbour	Julie Wood 109 Waiwhiu Road (Property #23)	Attempting to inform of project.	BH left voicemail, advised can come explain project in more detail.
1/10/2018	Phone call	B Horide	Neighbour	Carpenter & Dixon 54 Waiwhiu Road (Property #26)	Attempting to inform of project.	No answer.
1/10/2018	Phone call	B Horide	Neighbour	Stephen Taylor 172 Waiwhiu Road (Property #28)	Attempting to inform of project.	Phone engaged.
1/10/2018	Phone call	B Horide	Community group	Deerstalkers Association	Informing of project.	Increase activity on site. No one should be entering without permission. BH to email website, leader will put in newspaper.
1/10/2018	Email	B Horide	Community group	Deerstalkers Association	Informing of project.	Advised that level of hunting will reduce in years to come. Attached website details.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
1/10/2018	Phone call	B Horide	Neighbour Nick Ball 61 Wilson Road	Attempting to inform of project.	Left message explaining happy to call back and discuss project.
2/10/2018	Meeting	C Wills	Neighbour Ross and Christine McPherson 133 Wayby Road (Property #12)	Informing of project. Concerns are loss of property value, effects on the Dome and Hōteu River and traffic.	CW offered Redvale visit.
2/10/2018	Meeting	B Horide	Neighbour Young, C.B. & J.A. 302 Wilson Road North (Property #14)	Attempting to inform of project.	No one home.
2/10/2018	Meeting	B Horide	Neighbour Phil Braddock 728 SH1 Frogpool Farm	Informing of project.	Main issues is traffic. Thinks groundwater may also be an issue, BH explain landfill and left brochure.
2/10/2018	Meeting	B Horide	Neighbour Julie Wood 109 Waiwhiu Road (Property #23)	Attempting to inform of project.	Nobody home.
2/10/2018	Meeting	B Horide	Neighbour Stephen Taylor 172 Waiwhiu Road	Informing of project.	Left with brochure, overall no major concerns raised.
2/10/2018	Meeting	B Horide	Neighbour Kathy Tolman 190 Waiwhiu Road	Informing of project.	Left brochure.
2/10/2018	Phone call	B Horide	Neighbour Nick Ball 61 Wilson Road	Informing of project.	Main concerns are traffic and odour. BH advised 2028 is when the landfill is planned to be operating.
3/10/2018	Phone call	M Cadman	Neighbour Robyn and Richard Brown 76 Spindler Road (Property #5)	Wanted detail on employment opportunities.	Wanting project manager's contact details. Provided ARL details.
3/10/2018	Email	C Wills	Neighbour Georgia Robson, daughter of Purvis, Craig and Mandy, 761a SH1	Access for riding in Matariki Forest	Matariki will still control access, it will be some years before WMNZ activities build up. CW provided contacts for Sam Middlemass at Matariki Forests.
3/10/2018	Phone call	I Kennedy	Landowner Emily Lentino (ex- wife), Louise Lentino (sister-in-law) (Property #1)	Purchase of land	Trust did not let them know WMNZ was purchasing the land. Concerned on impact on groundwater.
4/10/2018	Phone call	B Horide	Neighbour Mrs Rumble 1402 SH1 (Property #11)	Informing of project and attempting to set up a time to meet and explain the proposal in further detail.	Set time for BH to visit.

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		Internal	External Type Name		
4/10/2018	Phone call	B Horide	Neighbour Appleby 761B SH1	Informing of project	BH left voicemail about offering to come and explain the proposal.
5/10/2018	Meeting	C Wills	Neighbour Lee Laughton 80 Spindler Road Also another neighbour Louise Carmichael from west side of SH1 (Property #7)	Explaining proposal.	Concerns are loss of property value, water quality and traffic.
8/10/2018	Phone call	B Horide	Neighbour Sue Tomlinson 78 Spindler (Property #6)	Prospect of grazing.	BH left voicemail, follow up with text message.
8/10/2018	Text message	B Horide	Neighbour Sue Tomlinson 78 Spindler (Property #6)	Prospect of grazing.	Advised will update in a couple of weeks because still negotiating a lease with the farmer.
8/10/2018	Meeting	B Horide	Neighbour Young, C.B. & J.A. 302 Wilson Road North (Property #14)	Attempting to inform of project.	No one home.
8/10/2018	Meeting	B Horide	Neighbour Dixon 54 Waiwhiu Road (Property #26)	Attempting to inform of project.	No one home, powered gate closed
8/10/2018	Phone call	B Horide	Neighbour Dixon 54 Waiwhiu Road (Property #26)	Attempting to inform of project.	No answer.
8/10/2018	Meeting	B Horide	Neighbour Jung Hee Lee 795 SH1	Attempting to inform of project.	No one home, do not enter site.
8/10/2018	Email	M Cadman	Media James Addis Mahurangi Matters	Answering media inquiry	Key topics waste type, odour, pollution of Hōteu, visibility.
9/10/2018	Meeting	B Horide	Neighbour Mrs Rumble 1402 SH1 (Property #11)	Informing of project.	Why NZTA would remove so many buildings near their farm, native tree harm. Main concerns are traffic.
9/10/2018	Meeting	B Horide	Neighbour Young, C.B. & J.A. 302 Wilson Road North (Property #14)	Attempting to inform of project.	No one home.
9/10/2018	Overland mail	B Horide	Neighbour The director Domevie (Property #20)	Informing of project.	Provided contact details, offered to come and explain proposal.

Date	Contact Type	Attendees			Topic of consultation	Outcomes/actions
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9/10/2018	Phone call	ARL		Unknown, number 027 545 3404	No message left	
9/10/2018	Meeting	T Nickels M McSaveney B Horide C Wills M Cadman R Rountree J Jefferis M Beretta L James	Iwi	William Kapea Haahi Walker (Ngāti rango/ Ngāti Whatua)	WMNZ and iwi meeting to outline cultural reconnection and project proposal.	Topics discussed location, need for a landfill, how a modern landfill works and final capping. Haahi took brochure and information back to share with people at the marae. William Kapea to advise next stage.
10/10/2018	Email	ARL	Public Interest	ARL database	Informing of open day details	Outlined first 2 open day details
10/10/2018	Email	ARL	Public Interest	Mark Thomas	Details of open day	Wanting details of public meeting
10/10/2018	Email	ARL	Public Interest	Mark Thomas	Details of open day	Sent details about open day and links to website.
10/10/2018	Phone call	ARL	Public Interest	Robyn 0226706965	Details of open day	BH called back and gave details of open day,
12/10/2018	Meeting	T Nickels M McSaveney B Horide C Wills R Rountree	Iwi	Mook Hohnneck, Vern Rosieur (Ngāti Manuhiri)	WMNZ and iwi meeting to outline cultural reconnection and project proposal.	Topics discussed location, need for a landfill, how a modern landfill works and final capping. Discussion on land ownership, Ngāti Manuhiri believe they should be first to any rights and no other iwi. Mook to advise Tom with a time to set up meeting for another proposal.
12/10/2018	Phone call	T Nickels (J Scott)	Public Interest	Dennis Horner 021 949 132	WMNZ intention for the airstrip	Is interested in what WMNZ intends to do with the airstrip. TN to follow up.
16/10/2018	Phone call	I Kennedy	Neighbour	Izard-Price 1232 SH1 Ken Price and Phillipa Izard-Price Lawyer Jeff Morrison (Property #9)	Open day	Advising of open days 17 and 27 October, welcome to attend, advising of extra traffic and private property signs on their driveway.
16/10/2018	Phone call	I Kennedy	Neighbour	Tim Harrison 1232A SH1 (Property #10)	Open day	IK advised of open day and traffic plan.
16/10/2018	Phone call	I Kennedy	Landowner	Emily Lentino (Property #1)	Open day	IK left voicemail, advised willing to meet up and discuss project. Advised detail of open day.

Date	Contact Type	Attendees			Topic of consultation	Outcomes/actions
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16/10/2018	Phone call	B Horide	Iwi	William Kapea	Willie Wright, Integrated Kaipara Management Group	Willie Wright is chairman of Integrated Kaipara Management Group, media have asked for his opinion. BH requested contact details from WK but suggested email. BH advised of WMNZ meeting with Ngāti Manuhiri. WK will get in touch with WMNZ after discussing the proposal with the rest of Ngāti rango.
16/10/2018	Phone call	B Horide	Politician	Willie Wright DOC Whangarei-Beth	BH trying to contact Willie Wright	BH left message for Willie to outline WMNZ has a project happening in the Hōteō and interested in feedback. Requested Willie to call back.
16/10/2018	Phone call	B Horide	Consultant/Contractor	Raewyn Morrison Forest and Bird	BH checking that Forest and Bird was aware of the project.	BH outlined project in Hōteō river area. Raewyn had already seen open days. Was going to look online and then if she had any questions would contact ARL.
17/10/2018	Open day	I Kennedy B Horide C Wills M Cadman S Fogarty R Rountree J Jefferis M Beretta M McSaveney T Nickels M Gao D Gautam A Beachen S Carson A Brabant (T+T)	Public Interest		Public Open Day	
17/10/2018	Email	B Horide	Iwi	Mook Hohneck (Ngāti Manuhiri)	Notification that ecology surveys will be commencing shortly on WMNZ land for Hochstetter's frogs. Permit has been submitted to DOC.	
17/10/2018	Email	B Horide	Iwi	Haahi Walker (Ngāti rango/ Whatua)	Notification that ecology surveys will be commencing shortly on WMNZ land for Hochstetter's frogs. Permit has been submitted to DOC.	

Date	Contact Type	Attendees			Topic of consultation	Outcomes/actions
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17/10/2018	Open day	I Kennedy			Open Day	IK to follow up with Caroline Milner from the local board. Spindler Road neighbours concerns are property devaluation.
17/10/2018	Email	T Nickels	Public Interest	Roger & Patte Williams 65 Alnwick Street Warkworth 0919 09 425 9127	Vegetation on Wilson Road	Would like to visit Wilson Road Main concerns are vermin pest control, weed control, site water management and cost effective disposal of greenwaste. WMNZ team to follow up response.
18/10/2018	Email	T Nickels	Public Interest	Joseph Kapea	Open day	TN sent Joseph educational program about sustainable modern landfills.
18/10/2018	Text message	I Kennedy	Landowner	Emily Lentino (Property #1)	Emily feels pressure for selling property to WMNZ.	Emily has asked for WMNZ to speak up that the decision to sell to WMNZ was through the trustees not family.
19/10/2018	Phone call	C Wills	Public Interest	Dean Yarnley	Open day follow up on incineration	CW explained why WMNZ is not considering incineration. Dean recommended we add it into our FAQs.
19/10/2018	Email	I Kennedy	Public Interest	Caroline Milner	IK provided more information based on areas of interest	Traffic proposal and truck number estimates. Hōteu river and how effects on this will be mitigated. Positive benefits to the community such as community committee, protection of native bush and walkway and cycle paths.
23/10/2018	Phone call	I Kennedy	Politician	Beth Houlbrooke (Chair of Rodney Board)	Proposing a meeting regarding the application process for the project.	IK left voicemail for Beth to call back and arrange a time to go through the proposal.
23/10/2018	Phone call	I Kennedy	Politician	Colin Smith (Member of Rodney Board, Wellsford)	Proposing a meeting regarding the application process for the project.	IK discussed points of interest: When Redvale opened people wanted the landfill in Wellsford. Interested in why not incineration? How we can bring benefits to the local Wellsford community? Flooding as a potential issue. Wellsford water supply, which comes from a bore near Wayby Valley Road. Colin to advise who and when for the meeting.
24/10/2018	Phone call	B Horide	Consultant/Contractor	Cathy Chinn NZTA Safe Roads	Contact details for project open days and information.	Wanting details of open days, BH provided links for website and details for ARL link. BH provided details of open day 2.
24/10/2018	Email	ARL	Public Interest	ARL database	Informing details and reminder about second open day.	

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25/10/2018	Email	ARL	Public Interest Carol Weaver	Rainfall management, response to question from open day.	Management of rainfall, leachate, stormwater cover, daily cover. All of these operational practices manage impact from heavy rainfall.
26/10/2018	Email	ARL	Neighbour Susan Speedy	Truck movements	Advised of return truck movements.
26/10/2018	Email	M Cadman	Regulatory authority Wellsford Police	Open day	MC advised of open day and potential protestors. Police advised
27/10/2018	Open day	I Kennedy B Horide C Wills M Cadman S Fogarty R Rountree M Beretta M McSaveney T Nickels S Carson B Marshall D Aspin	Public Interest		Public Open Day
29/10/2018	Email	ARL	Neighbour Susan Speedy	Truck movements, traffic and stormwater	Advised of return truck trips, traffic, provided examples of trucks at Kate Valley and will follow up with a photo of ponds at Redvale and Whitford.
31/10/2018	Email	ARL	Public Interest ARL database	Poster content from open days available online.	Advised poster content from open days 1 and 2 is now available online and send links to the website.
1/11/2018	Email	ARL	Public Interest Roger & Patte Williams 65 Alnwick Street Warkworth 0919 09 425 9127	Vegetation on Wilson Road	Response to email. Provided information on vermin pest control, weed control, site water management and cost effective greenwaste disposal.
1/11/2018	Email	ARL	Public Interest Roger & Patte Williams 65 Alnwick Street Warkworth 0919 09 425 9127	Vegetation on Wilson Road	Suggested drone footage showing the nature and topography of the site could be useful.
2/11/2018	Email	ARL (Project Manager)	Regulatory authority Warwick Pascoe Principal Project Lead, Resource Consents Auckland Council	Consent process	Interested in meeting up and discussed how to enhance the consent process. Forwarded to BH and IK.
6/11/2018	Email	ARL	Neighbour Susan Speedy	Opening of landfill and estimated truck numbers	Interested in when the landfill is expected to receive waste and when truck numbers could expect to increase.

Date	Contact Type	Attendees			Topic of consultation	Outcomes/actions
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7/11/2018	Email	ARL	Neighbour	Susan Speedy	Opening of landfill and estimated truck numbers	Responded to question about when the landfill is expected to receive waste and when truck numbers could expect to increase.
8/11/2018	Email	ARL	Neighbour	Susan Speedy	Interested in how many trucks are expected to run from the start.	
8/11/2018	Email	ARL	Public Interest	Tom Pendlebury 13 Christine Place, Warkworth	Concern with road layout at their address	Provided detail around the NZTA plans for the NZTA projects Puhoi-Warkworth and Dome Valley.
8/11/2018	Email	ARL	Public Interest	Brendan Gaffney	Truck numbers and the option for waste by rail	Provided information around truck estimated numbers and the potential to explore waste by rail in the future.
8/11/2018	Email	ARL	Public Interest	Rhodna Whitehead	Concerns for pollution into the Hōteu River and Kaipara Harbour	Provided information around stormwater management systems and plans.
9/11/2018	Email	ARL	Public Interest	Tom Pendlebury 13 Christine Place, Warkworth	Acknowledgement of recalled email	Previous email to them was sent to an incorrect recipient. This email advised and apologised for the error.
9/11/2018	Email	ARL	Public Interest	Quentin Jukes	Acknowledgement of recalled email	This recipient was incorrectly send an email in reponse to a query from Tom Pendlebury. The email confirms that WMNZ has notified this with the correct recipient.
9/11/2018	Phone call	I Kennedy	Public Interest	Barry Pinker	Inquiry about airfield usage	Barry used to use the airfield. IK explained HSE implications around using airfield going forward and WMNZ is exploring further options. At the moment the airfield is closed until further notice. IK advised that Barry will be updated once options have been explored.
9/11/2018	Email	I Kennedy (John Brown)	Network utility operator	RNZAF Daniel J. Hunt, Group Captain	Inquiry about airfield usage	RNZAF used to use the airfield for helicopter training purposes under the previous ownership. Formal request to use the airstrip again. John Brown advised that it is closed until further notice because there is no one on site to operate the airfield.
9/11/2018	Phone call	S Fogarty	Public Interest	Rufus Piper 027 405 9193	Plans for Springhill Estate	Rufus called and is interested in WMNZ's plans for Springhill Estate. BH to call back.
9/11/2018	Phone call	B Horide	Public Interest	Rufus Piper 027 405 9193	Plans for Springhill Estate	Rufus is interested in leasing the farm off WMNZ if it came up again. BH confirmed WMNZ owns the farm and the process will be to keep the farm operating as it is for the next few years. BH said that there is someone already sorted to lease.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
12/11/2018	Email	B Horide	Iwi Ngai Maunga Whakahii o Kaipara	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.
12/11/2018	Email	B Horide	Iwi Ngai Tai ki Tamaki	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.
12/11/2018	Email	B Horide	Iwi Ngāti Maru	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.
12/11/2018	Email	B Horide	Iwi Ngāti Te Ata	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.
12/11/2018	Email	B Horide	Iwi Ngāti Wai	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
12/11/2018	Email	B Horide	Iwi Ngāti Whanaunga	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.
12/11/2018	Email	B Horide	Iwi Ngāti Whatua Orakei	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.
12/11/2018	Email	Bruce Horide	Iwi Ngāti Whatua o Kaipara	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.
12/11/2018	Email	B Horide	Iwi Te Kawerau a Maki	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.
12/11/2018	Email	B Horide	Iwi Te Runanga o Ngāti Whatua	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteoro River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteoro catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.

Date	Contact Type	Attendees			Topic of consultation	Outcomes/actions
		Internal	Type	External Name		
12/11/2018	Email	B Horide	Iwi	Te Uri o Hau	Notification of OIO approval for WMNZ to purchase a block of land in the Hōteu River. Proposal is to establish and operate a landfill. Initial contact has been made with iwi and hapu residing in Hōteu catchment.	Provided link to the ARL website and highlighted the poster content displayed at the public open days is available.
12/11/2018	Email	B Horide	Iwi	Haahi Walker (Ngāti rango/ Whatua)	Notification that WMNZ sent letters to several other iwi groups notifying them of the project as a matter of courtesy.	No response required.
12/11/2018	Email	B Horide	Iwi	Mook Hohneck (Ngāti Manuhiri)	Notification that WMNZ sent letters to several other iwi groups notifying them of the project as a matter of courtesy.	No response required.
12/11/2018	Email	ARL	Public Interest	ARL database	Details of upcoming open days provided.	No response required.
12/11/2018	Text message	I Kennedy	Landowner	Emily Lentino (Property #1)	Attempting to meet up and explain the project proposal in further detail.	
14/11/2018	Email	B Horide	Iwi	Pani Gleeson Ngāti Whatua O Kaipara	Area is in a significant area of their rohe. They request a hui to discuss the proposal.	Area is in a significant area of their rohe. They request a hui to discuss the proposal.
20/11/2018	Email	ARL	Neighbour	Lee Laughton 80 Spindler Road (Property #7)	Property value	Wants to know what compensation he will receive for his loss in property value. CW advised at the open day there would be no compensation provided.
20/11/2018	Email	ARL	Public Interest	ARL database	Frequently asked questions available online. Details of upcoming open days.	No response required.
22/11/2018	Email	ARL	Neighbour	Susan Speedy	Truck numbers.	Explained that it is difficult to estimate the exact number on opening of the landfill because of external factors.
22/11/2018	Phone call	I Kennedy	Landowner	Emily Lentino (Property #1)	Attempting to meet up and explain the project proposal in further detail. Advised that attempting to contact Mrs Brown (Tony's mother).	

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
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22/11/2018	Text message	I Kennedy	Landowner Emily Lentino (Property #1)	Attempting to meet up and explain the project proposal in further detail. Advised that attempting to contact Mrs Brown (Tony's mother).	
22/11/2018	Phone call	ARL	Public Interest Caroline Milner	Wanting to speak to Ian.	Left message for Ian to call back. Ian will call back 22/11/18.
22/11/2018	Phone call	I Kennedy	Public Interest Caroline Milner	Caroline advised Redvale locals are working with Wellsford locals.	
23/11/2018	Email	M Cadman	Politician Marja Lubeck (Laura Crossen, office of Marja Lubeck)	Informing that WMNZ is currently consulting with the community and would be happy to meet with her. Advised of the second round of open days.	
26/11/2018	Email	ARL	Media Anne Gibson (New Zealand Herald)	Statement on new plans.	Marsha followed up.
26/11/2018	Email	ARL	Media Anne Gibson (New Zealand Herald)	News article	Anne sent link to article on WMNZ plans for the land.
26/11/2018	Email	M Cadman	Politician Marja Lubeck (Laura Crossen, office of Marja Lubeck)	Meeting with I Kennedy and Ms Lubeck confirmed.	Date of meeting 7 December 11am-12pm.
26/11/2018	Email	M Cadman	Media Anne Gibson (New Zealand Herald)	M Cadman provided information on the proposed landfill.	Anne said she will put it on the Christmas ideas -expect her to be in contact in the new year.
28/11/2018	Phone call	I Kennedy	Neighbour Izard-Price 1232 SH1 Ken Price and Phillipa Izard-Price Lawyer Jeff Morrison (Property #9)	Notification of open day and traffic management.	Left a message for Jeff to call back.
28/11/2018	Phone call	I Kennedy	Neighbour Tim Harrison	Notification of open day and traffic management.	Left a message for Tim.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
28/11/2018	Phone call	I Kennedy	Landowner Emily Lentino	Contact details for Linda Brown.	Left a message for Emily.
29/11/2018	Open day	I Kennedy B Horide C Wills M Cadman S Fogarty T Nickels M Beretta L James M McSaveney B MacFarlane J Jefferis R Rountree A Beachen K Kumar T Bryce (T+T) D McKenzie (Stantec)	Public Interest	Public Open Day	
30/11/2018	Email	ARL	Media Katie Bradford One News	Mitigating environmental and traffic concerns.	Would like an interview. Marsha arranged for Tom to interview in studio 1/12/18.
1/12/2018	Open day	ARL	Public Interest M Cadman S Fogarty I Kennedy	Public open day.	

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		Internal	External Type Name		
3/12/2018	Email	ARL	Neighbour Lee Laughton 80 Spindler Road (Property #7)		Risks to community, fight has only just began.
3/12/2018	Email	ARL	Public Interest ARL database	Update of public notification	
4/12/2018	Phone call	B Horide	Iwi William Kapea	Their 3 groups are due to meet this week.	B Horide explained that T Nickels will be meeting again with Ngāti Manuhiri. W Kapea said that if they raise the importance of a site blessing, Haahi Walker will call Mook Hohneck direct.
4/12/2018	Meeting	T Nickels	Iwi Mook Hohneck (Ngāti Manuhiri)	T Nickels explained the project in overview form. Mook emphasised he wants a long term partnership with WMNZ. Mook will assist with a CVA.	Next step is for T Nickels and WMNZ team to meet Ngāti Manuhiri and the fellow trustees.
6/12/2018	Email	ARL	Public Interest Craig Brown	River map and environmental mitigation.	Provided contact details for I Kennedy and B Horide and offered for them to come and explain the project to Craig.
11/12/2018	Email	ARL	Public Interest ARL database	Advised the posters from Open days 3 and 4 are online.	Provided some information and a link to the Dairy Flat Community trust fund allocation.
12/12/2018	Meeting	I Kennedy	Public Interest Caroline Milner	Tour of Redvale Landfill and Energy Park.	
13/12/2018	Email	ARL	Neighbour Dave Fletcher	Called through WMNZ customer service asked to speak to ARL team.	C Wills to phone back 13/12/18
13/12/2018	Email	I Kennedy	Public Interest Caroline Milner	RMA process courtesy of the MfE website.	
13/12/2018	Phone call	T Nickels	Media Rowan Quinn Senior Journalist RNZ News Auckland	Progress report on submission of consent application.	Tom advised that WMNZ set optimistic timelines however submission will more likely be February or March 2019. Rowan will contact again in the new year.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
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13/12/2018	Meeting	I Kennedy	Politician Rodney Board	Outline of project: site location, what will be on the site, benefits to the community	
18/12/2018	Meeting	I Kennedy	Politician Rodney Board Local Board Transport Infrastructure and Environment Committee	Letter following Ian's deputation at the Rodney Board meeting.	The Rodney Board will take up the offer for a Redvale site visit in the new year.
18/12/2018	Email	B Horide	Regulatory authority Vector	Vector are working with NZTA n the Dome Valley Safe Roads project and requested a high level view of the landfill.	Bruce provided a high level timeline 2019-2031 with proposed programme relating to electricity power supply and export. Bruce also attached a plan.
14/01/2019	Email	I Kennedy	Public Interest Caroline Milner	Update of resource consent lodgement date. Requesting a copy.	
15/01/2019	Email	I Kennedy	Public Interest Caroline Milner	Advised WMNZ expect to lodge in Q1 and Auckland Council will notify in Q2.	
16/01/2019	Email	B Horide	Network utility operator Rob Fisher Mark Bourne Watercare	WMNZ is currently preparing technical reports to establish a landfill near Wellsford. Requesting a contact to consult with at Watercare.	Rob Fisher copied in the details of Mark Bourne who is the Head of Servicing and Consents at Watercare.
17/01/2019	Meeting	T Nickels I Kennedy M McSaveney	Iwi Ngāti Manuhiri	WMNZ recognise Ngāti Manuhiri as mana whenua. Ngāti Manuhiri do not want meetings with other iwi. They will assist with a CVA.	WMNZ will set up meetings with Jessie and the consultants to assist with the CVA.
22/01/2019	Email	ARL	Community group Stuart Windross Mahurangi East Residents and Ratepayers Association (MERRA)	They are concerned about traffic increases. They are advocating a waste-by-rail option is part of the consent. They attach a proposal for the waste by rail.	I Kennedy will arrange a meeting with MERRA.
24/01/2019	Email	I Kennedy	Iwi Jessie Chapman Ngāti Manuhiri	WMNZ welcome the landfill specialists for assistance with CVA. They are advanced in their studies but the reports are not finalised.	Jessie will respond which consultants she would like to meet with.

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24/01/2019	Meeting	I Kennedy	Network utility operator KiwiRail	Waste by Rail	KiwiRail confirmed they cannot accommodate WMNZ waste with their current infrastructure. There is a study due next month. Unloading at Wellsford is controlled by RMA and is restricted between 07h00-18h00.
24/01/2019	Email	B Horide	Regulatory authority David Sinclair Auckland District Health Board	WMNZ are planning to establish a landfill near Wellsford and are currently preparing technical reports for the RMA consent application. WMNZ have asked consultants to prepare health risk assessments and WMNZ welcomes the opportunity to explain the project to ADHB.	B Horide provided ARL website details and will suggest meeting dates.
25/01/2019	Phone call	I Kennedy	Community group Stuart Windross Mahurangi East Residents and Ratepayers Association (MERRA)	Ian introduced himself to Stuart. Ian said he is happy to meet with Stuart when he is back from leave. There are 8 people on the committee.	Ian will make contact when he returns from leave on 4 February 2019. Stuart will look for dates that work with him and his colleagues.
25/01/2019	Email	I Kennedy	Iwi Jessie Chapman, Fiona McKenzie (Ngāti Manuhiri)	Cultural Values Assessment.	Bruce to make contact with Fiona. Ngāti Manuhiri to send through account details. WMNZ will provide technical reports when these become available. Bruce Horide will contact Fiona to discuss the proposal. Confirmed the cost of the CVA and asked for account details.
30/01/2019	Meeting	B Horide	Iwi Fiona McKenzie (Ngāti Manuhiri)	Bruce described efforts to avoid SEAs. Fiona was interested in native bush and benefits of people upstream in the Waiteraire catchment. Fiona expressed disappointment that Springhill would be planted in pine.	Bruce provided ARL brochure, schematic drawings from open day posters, plan of Matariki Forest holdings, T+T plan showing SEAs on an aerial photo and an active tip face photo. WMNZ to provide copies of technical reports when they are available, especially ecology, geotechnical and archaeology.

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31/01/2019	Meeting	B Horide Matt Baber (T+T)	Regulatory authority	Thelma Wilson, Peter Smith (Department of Conservation) (DOC)	Recreational opportunities for Sunnbrook Reserve. Pest control, DOC are concerned about predators, they would like pest control to include monitoring and fencing. Ecology, planting initiatives, wetland protection, relocation of fauna. Sediment, stormwater concepts designed for peak flows.	Results of studies to be provided in due course. Subsequent consent lodgment 31/5/19. Subsequent mtg 16/7/19 and contact 2/8/19.
1/02/2019	Email	B Horide	Iwi	Fiona McKenzie Mook Hohnneck (Ngāti Manuhiri)	Archaeology report.	Bruce sent Fiona the archaeological report which will assist with the CVA.
1/02/2019	Email	B Horide	Iwi	Haahi Walker (Ngāti rango/Whatua)	Archaeology report.	Bruce sent the archaeological report. Bruce provided an update that WMNZ are still preparing applications for resource consents and will lodge in the next few months.
4/02/2019	Email	B Horide I Kennedy	Iwi	Fiano McKenzie (Ngāti Manuhiri)	Meeting follow up.	FM requested copies of technical reports in due course.
6/02/2019	Email	ARL/ M Cadman	Media	James Addis Mahurangi Matters	Protestors, leachate, lining system, WMNZ leaving tributaries off the map of the Hōteu River, update on consent application progress.	Marsha to respond.
8/02/2019	Phone call	ARL	Public Interest	Di Scott Bayleys Warkworth 274493804 di.scott@bayleys.co.nz	Wants a map that shows the land purchased by WMNZ. She wants to be aware of the boundaries along Spindler Road for when she is selling properties.	Message left for her by BH. Follow up required.
11/02/2019	Meeting	I Kennedy	Community group	Stuart and Karen Windross and others (MERRA)	Road traffic and rail option.	MERRA favour rail. Mintues agreed 20/2/19.
12/02/2019	Meeting	B Horide	Community group	Dot Dalziell Walking Access Commssion	OIO decision and WAC's interests. Bruce provided a copy of the project brochure, NZ topo map, T+T Fig A2 and an aerial photo marked to show the outline of Mahurangi Forest.	Bruce to provide copies of plans showing SEAs, unformed legal roads, dates of the next harvest. WAC would like to talk to DOC to check their ideas for the WMNZ site are complimentary, especially around Sunnybrook.

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13/02/2019	Email	B Horide	Public Interest Di Scott Bayleys Warkworth 274493804 di.scott@bayleys.co.nz	Map of land purchased by WMNZ.	Bruce provided a map and link to the location on the ARL website.
14/02/2019	Meeting	B Horide	Iwi Fiona McKenzie (Ngāti Manuhiri)	Site visit to Springhill, Bruce showed Fiona the pines which are the landfill valley, hillside farm destined for pines, stockpile valley, native bush that will be preserved and the Hōteo River bank.	Fiona commented that WMNZ need to fix absent linkages between blocks of native bush, identify native trees to preserve, have availability to iwi of felled native trees and that access to Sunnybrook Reserve is difficult.
15/02/2019	Email	Rachel Signal-Ross T+T	Regulatory authority Thelma Wilson (DOC)	Ecology survey and findings report.	A link to a copy of the ecology findings reports was emailed to FM.
15/02/2019	Email	Rachel Signal-Ross T+T	Iwi Fiano McKenzie (Ngāti Manuhiri)	Ecology survey and findings report.	A link to a copy of the ecology findings reports was emailed to FM.
15/02/2019	Email	B Horide	Regulatory authority Dot Dalziell Walking Access Commssion	Guidance on unformed legal roads.	Links provided to WM for information.
19/02/2019	Meeting	Bruce Horide	Neighbour Peter Spencer, Jason Syme, Sam Middlemass, Will Steward (Matariki Forests)	Familiarisation with proposal and ecology.	Site visit conducted mainly to view the Springhill land.
21/02/2019	Meeting	B Horide T+T Andrea Brabant, Rachel Signal-Ross	Regulatory authority Mark Ross, Warwick Pascoe	Familiarisation with landfill.	Site tour conducteed at Redvale, being indicative of the scope of project proposed at ARL.
26/02/2019	Email	ARL	Public Interest Craig Brown	Map of waterways and how WMNZ plan to secure the environment.	Craig is part of the Grant family who used to own Springhill Farm (his great grandfather).
26/02/2019	Email	B Horide	Network utility operator Greg Bracey (Refining NZ)	BH spoke with Greg Bracey regarding WMNZ'S proposal which is in the vicinity of a section of the Marsen-Wiri pipeline.	Bruce said that the designers are currently refining the concept designs and will send through the drawings in a few weeks. Site meeting is scheduled 27/3/19.

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26/02/2019	Phone call	B Horide C Wills	Iwi	Bill Kapea	At a recent hui, it was suggested that Haahi Walker already approved the landfill. Ngāti Manuhiri was at that hui. Haahi questioned how WMNZ should reply to Whakahii, Bill advised WMNZ would have to follow process.	Bill Kapea is meeting their iwi on 27/3/19 and will discuss getting a hui organised. He will meet at Redvale at 10am on 1/3/19.
28/02/2019	Email	I Kennedy	Regulatory authority	MoT	Upper North Island Supply Chain Strategy / logistics and freight review.	WM sent tem notice of WM's proposal for their information.
1/03/2019	Meeting	B Horide C Wills	Iwi	Bill Kapea, Tearahi (Ngāti rango)	CW took TA on a drive around Redvale. Discussion about if Redvale is not replaced then Auckland's waste (Ngāti Whatua's rohe waste) would go to Ngaphui's or Tainui's rohe, which is contrary to the principle of taking care of their own wastes.	Ngāti rango is organising a hui on 23/24 March in Wellsford and 6/7 April 2019 in Helensville. Invited guests would be Ngā Maunga Whakahii, Te Uri o Hau, Waste Management and Ngāti Manuhiri. These would be at public venues not Marae, to avoid cancellations if a tangi occurs. BK suggested that it would be too early to ask any Kaipara iwi for a CVA until they had attended the proposal hui to be better informed
6/03/2019	Meeting	I Kennedy	Community group	Warkworth Area Liaison Group	Need for landfill in Auckland, alternatives and ARL project specifics.	WALG intend to make a submission in favour of rail.
8/03/2019	Meeting	I Kennedy	Regulatory authority	Mark Bourne (Watercare-Head of Servicing and Consents), Lindsay Wilson (Watercare)	Water takes and water discharges in the vicinity of WM's proposed ARL.	Discussion and information sharing.
11/03/2019	Email	I Kennedy	Iwi	Jessie Chapman	Meeting of WM's	Confirming meeting arrangement.
11/03/2019	Email	Rachel Signal-Ross T+T	Iwi	Fiona McKenzie (Ngāti Manuhiri)	Ecology report.	A link to a copy of the ecology findings report was re-sent to FM.
13/03/2019	Email	B Horide C Wills	Iwi	Bill Kapea	Ngāti rango Hui	Venue and date confirmed for 23/3/2019.
14/03/2019	Email	B Horide	Iwi	Pani Gleeson Ngāti Whatua O Kaipara	Request for engagement	Reply sent by B Horide 14/3/19 to organise an initial meeting

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19/03/2019	Meeting	B Horide C Wills Macfarlane R Bailey L James	Politician Beth Houlbrooke Allison Roe Louise Johnston Ben Moimoi	Information about landfills and waste	Presentation and site tour.
21/03/2019	Email	T Nickels	Iwi Mook Hohneck (Ngāti Manuhiri)	BCG Chairman's scheduled visit.	Visit scheduled.
22/03/2019	Meeting	B Horide C Wills	Iwi Pani Gleeson, Shona Oliver Ngāti Whatua O Kaipara	Initial consultation.	Ecology and archaeology reports to be sent to NWoK. Site visit to Redvale to be arranged.
23/03/2019	Hui	I Kennedy B Horide C Wills	Iwi Multiple attendees including public	WMNZ's proposal and presentation by WMNZ.	Minutes taken by J Richards.
25/03/2019	Email	Rachel Signal-Ross T+T	Iwi Pani Gleeson, Shona Oliver Ngāti Whatua O Kaipara	Ecology and archaeology reports links for download.	WM asked to send final reports when ready. No further action required from WM at this time.
26/03/2019	Phone call	C Wills	Neighbour Dave Fletcher	The previous weekend's hui at Helensville	No action required.
27/03/2019	Meeting	B Horide	Network utility operator Peter Owbridge (NZ Refining)	NZ Refining oil pipeline.	WM will provide draft plans of the landfill proposal. NZR will work with WMNZ if the proposed work comes near the pipeline. Powbridge sent email to First Gas for info sharing on 28/3/19.
28/03/2019	Email	B Horide	Network utility operator Anthony Joines	Contact names.	First points of contacts for First Gas and for WM confirmed.
1/04/2019	Phone call	B Horide	Iwi Mai Chen, representing multiple iwi	Making contact on behalf of iwi.	Email to come, requesting information and previous contacts with her clients.
2/04/2019	Email	B Horide	Iwi Alan Riwaka (Te Runanga o Ngāti Whatua)	Concerns about WMNZ's proposal. Seeking meeting in Whangarei.	Phone call by BH but no reply. Email by BH on 4/4/19.
4/04/2019	Email	I Kennedy	Iwi Ngarimu Blair	Making contact on behalf of iwi.	Referring WMNZ to Nga Maunga Whakahii and Te Runanga oNgāti Whatua as the mandated contacts.

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4/04/2019	Email	I Kennedy	Iwi Renata Blair	Email received confirming and adding to the above. Renata Blair is Director of Ngāti Whatua Orakei Trust, Ngarimu is Deputy Chair, Marama Royal is Chair and Jamie Sinclair is CEO.	Send correspondence to CEO Jamie Sinclair plus make contact with Ngāti Maunga Whakahii (mandate for South Kaipara). Also Te Uri o Hau and Te Runanga o Ngāti Whatua.
4/04/2019	Meeting	B Horide C Wills	Iwi William Kapea	Advice on how to proceed with Ngāti rango and hapu.	Ngāti Ronga will suggest a meeting involving representatives from all three marae.
4/04/2019	Meeting	B Horide C Wills	Iwi Shona Oliver Pani Gleeson Cherie Povey (Nga Maunga Whakahii)	Information about an existing operating WMNZ landfill.	Visit to ARL site to be arranged.
5/04/2019	Phone call	B Horide	Iwi Alan Riwaka (Te Runanga o Ngāti Whatua)	Establishing contact.	TRoNW want WM to meet them at their offices. Concern about effects on river.
5/04/2019	Email	B Horide	Iwi Alan Riwaka (Te Runanga o Ngāti Whatua)	Possible meeting dates.	Waiting for TRoNW to confirm a date. C Wills phone on 14/4/19 and 29/4/19 but no answer.
8/04/2019	Phone call	B Horide	Regulatory authority Dot Dalziell Walking Access Commssion	Progress on addressing unformed legal roads.	WM to contact AT. WM to arrange a site visit. CW called DD 29/4/19 and arranged a visit for 8/5/19.
9/04/2019	Email	C Wills	Iwi Bill Kapea	Historic Ngai Tahu visit to Redvale.	Old correspondence sent to BK.
9/04/2019	Email	C Wills	Iwi Bill Kapea	Hui minutes. Ngāti rango independence from the three main mandated iwi/hapu in the area.	Minutes final version attached.
10/04/2019	Email	I Kennedy	Community group Michelle Carmichael (Fight the Tip)	Closed landfills and lining systems.	Clarification provided, following comments at hui. Reply received 17/4/19.
11/04/2019	Meeting	Mr Cao (Chairman), Tom Nickels, Ian K, Mike McSaveney, Mook Hohneck, Ringi Brown, Nicola MacDonald, Jessie Chapman	Iwi Ngat Manuhiri Trust (Mook Hohneck)	Chairman meets Chairman. Site familiarisation visit, explanation of ecology mitigation on Springhill, relationship strengthening.	Discussion of alternative iwi covenant and long-term partnership. Discussion of alternative iwi covenant, long term partnership. Mook Hohneck confirmed Ngāti Manuhiri support this and will assist in discussions with other iwi.

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17/04/2019	Email	Chris Wills	Regulatory authority Murray Campbell (AT specialist for unformed legal roads)	Request for process to follow to occupy paper roads.	Waiting for AT to reply. B Horide also rang and left a message for him 29/4/19. MC left a message for BH 29/4/19.
29/04/2019	Email	Bruce Horide (WM), Matt Baber (T+T)	Regulatory authority Thelma Wilson (DOC)	Agenda for tomorrow's meeting.	Agenda sent.
30/04/2019	Phone call	Chris Wills	Regulatory authority Murray Campbell (AT specialist for unformed legal roads)	Request for process to follow to occupy paper roads.	WMNZ will send plans and CTs to indicate the roads that WM want to close.
30/04/2019	Meeting	Bruce Horide (WM), Matt Baber (T+T)	Regulatory authority Thelma Wilson (DOC)	Ecology progress. Frog surveys. Further frog survey to do. DOC lacks information on Sunnybrook so difficult for them to comment.	T+T will continue frog surveys. BH will circulate minutes. (M Baber emails 2, 6/8/19 - mins and suggested next meeting dates).
30/04/2019	Phone call	Chris Wills	Community group Willie Wright (KHIMG)	Information about WM's project and relevance to Kaipara Harbour.	Site visit to Redvale to be arranged by CW. Phone number obtained for Te Uri O Hau. Visit arranged 2/5/19 to Redvale on 15/5/19.
1/05/2019	Email	Chris Wills	Regulatory authority Murray Campbell (AT specialist for unformed legal roads)	Request for process to follow to occupy paper roads.	Waiting for reply.
1/05/2019	Email	Chris Wills	Iwi Bill Kapea (Ngāti rango)	Update from NR side; query regarding progress from WM side.	Ngāti rango will hold their own hui over their leadership direction. WM will host Ngāti rango at Redvale late May 2019. Visit date 18/5/19 confirmed on 9/5/19.
7/05/2019	Phone call	Ian Kennedy	Iwi Nicola MacDonald (Ngāti Manuhiri)	Building a relationship.	Visit to Redvale to be arranged.
8/05/2019	Meeting	Chris Wills	Regulatory authority Dot Dalzell Walking Access Commssion	Inspection of routes for possible tracks including Waiwhiu stream bank.	WAC are seeking loops, but through landfill activities. WAC asked WM to arrange access to east site of Waiwhiu and to provide a works and forestry programme - confirmed by WAC in an email 10/5/19.
8/05/2019	Email	Chris Wills	Iwi Stephen Brown (Te Uri o Hau)	Project information and briefing opportunities.	SB is invited to visit Redvale, possible with Willie Wright next week.
9/05/2019	Meeting	Chris Wills, Bruce Horide	Iwi Bill Kapea	Ngāti Rango's own hui 5/5/19; planning for NR visit to Redvale 18/5/19.	Redvale visit date confirmed 18/5/19. Panui provided to WM.
9/05/2019	Email	Ian Kennedy	Community group David Sawyer (Fight the Tip)	Visit to Redvale Landfill.	Waiting for FTT to pick a date to visit Redvale.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions	
		Internal	External			
			Type	Name		
17/05/2019	Meeting	Chris Wills, Bruce Horide, Ian Kennedy	Iwi	Ngāti Manuhiri	Informing new trustees; site tour of Redvale.	Ngāti Manuhiri see partnership and early input into cultural values matters.
18/05/2019	Meeting	Chris Wills, Bruce Horide, Ian Kennedy	Iwi	Ngāti Rango	Informing members; site tour of Redvale.	Ngāti Rango seek to continue a long-term relationship with WM and will report back to a Ngāti Rango hui about their observations at Redvale. Ngāti Rango are interested in what happens to the waste in the more distant future.
20/05/2019	Meeting	Bruce Horide	Regulatory authority	David Sinclair, Neil Silver, John Whitmore (ADHB), JS (T+T)	Public health risk.	ADHB asked to be contacted when any information is released or application information is made available. BH will add JW to WM's email list.
20/05/2019	Meeting	Bruce Horide	Regulatory authority	David Sinclair, Neil Silver, John Whitmore (ADHB), JS (T+T)	Public health risk	Informative for ADHB. They ask to be contacted when any info is released or application info is available. BH will add JW to WM's email list.
21/05/2019	Email	Chris Wills	Regulatory authority	(Murray Campbell) AT	Site plan of roads proposed to be	Auto reply - on bereavement leave. PS email contact made
22/05/2019	Email	Ian Kennedy	Iwi	Piet Tuinder (Ngati Manuhiri)	Request to review AEE.	IK reply 23/5/19.
23/05/2019	Meeting	Bruce Horide, Chris Wills	Iwi	Stephen Brown (Te Uri o Hau), Willie Wright (IKHMG)	Information and understanding around the proposal and site tour of Redvale.	Grateful for the opportunity. TUoH intend to ask for a copy of the ecology report as soon as WM has lodged its applications.
23/05/2019	Phone call	Marsha Cadman	Politician	Matt King	Local media articles linking MK to campaigners against the proposed landfill.	Site tour offered. WMNZ contact details to be sent.
27/05/2019	Phone call	Chris Wills	Iwi	Bill Kapea (cultural advisor to WM)	Response to Ngati Manuhiri's CVA will go into the consent application.	Acknowledged.
27/05/2019	Email	B Horide	Regulatory authority	Lynda & Dot Dalziell (WAC)	Six-monthly report to 11/3/19 as required by OIO.	Sent to WAC.
30/05/2019	Meeting	Bruce Horide, Chris Wills	iwi	Bill Kapea (cultural advisor to WM)	WM's response to Manuhiri's CVA.	Suggestions were noted e.g. to make reference to AC's Te Aranga design manual.
30/05/2019	Meeting	Bruce Horide, Chris Wills	Regulatory authority	Murray Campbell, Tammy	Stopping of unformed legal roads.	AT's process outlined. Next step = thorough documentation of proposal, reasons, and alternatives by WM, then a pre-lodgment meeting.
31/05/2019	Phone call	B Horide	Neighbour	Chrissie Longworth	Consent lodgment.	Message left.
31/05/2019	Phone call	B Horide	Neighbour	B & R Rose 74 Spindler Road	Consent lodgment.	Message left.

Date	Contact Type	Attendees			Topic of consultation	Outcomes/actions
		Internal	Type	External Name		
31/05/2019	Phone call	B Horide	Neighbour	Lee Laughton	Consent lodgment.	LL remains very concerned about leachate in stream through his property and he doubts WM's consultants have recognised rainfall intensities. Email address provided b LL - BH will check it's on the mail out list.
31/05/2019	Phone call	B Horide	Neighbour	Mrs Rumble	Consent lodgment.	Acknowledged.
31/05/2019	Phone call	B Horide	Neighbour	Julie Wood 109 Waiwhiu Road	Consent lodgment.	She doesn't have computer or letterbox. Council say they'll put copies of application into libraries.
31/05/2019	Phone call	B Horide	Neighbour	Nick Ball 61 Wilson Road	Consent lodgment.	Acknowledged.
31/05/2019	Phone call	B Horide	Regulatory authority	Jane Price (NZTA)	Consent lodgment.	Message left.
31/05/2019	Phone call	B Horide	Regulatory authority	Sarah Ho (NZTA)	Consent lodgment.	Message left.
31/05/2019	Phone Call	Ian Kennedy	Iwi	Pieter Tuinder Ngati Manuhiri	Consent lodgement	Piet busy reading application. Told of lodgement and plan change, elections, work through partnership more. PT to read, report to trustees and CEO re proposal and mitigation to check Trustees views on proposal and mitigation. Once directional feedback, start engagement with WM re what can be enhanced to meet their expectations. Table and CVA not included in application at this stage, but still seek their approval.
31/05/2019	Phone call	B Horide	Regulatory authority	Thelma Wilson (DOC)	Consent lodgment.	Acknowledged.
31/05/2019	Phone call	B Horide	Neighbour	Natasha Topia, Hokai Nuku	Consent lodgment.	Acknowledged.
31/05/2019	Phone call	B Horide	Recreation	Dave Wilmot, Springhill Aviation	Consent lodgment.	Message left.
31/05/2019	Phone call	B Horide	Regulatory authority	Kathy Chinn (NZTA Safe Roads Alliance)	Consent lodgment.	Acknowledged.
31/05/2019	Phone message	Ian Kennedy	Neighbour	Emily Lentino	Consent lodgement	Have lodged. Happy to discuss if she calls back. Will try call again.
31/05/2019	Phone message	Ian Kennedy	Community group	Dave Sawyer Fight the Tip	Consent lodgement	Check on availability for Redvale site visit . Have lodged. On 30/5/2019
31/05/2019	Phone message	Ian Kennedy	Politician	Beth Houlbrooke (Rodney Local Board)	Consent Lodgement	lodged. Will call back next week.
31/05/2019	Phone call	B Horide	Iwi	Shona Oliver (Nga Maunga Whakahii)	Consent lodgment.	Acknowledged.
31/05/2019	Phone message	Ian Kennedy	Politician	Coin Smith (Rodney Local Board)	Consent lodgement	Lodged yesterday. Tru to chat further next week. Will also call others.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
31/05/2019	Phone message	Ian Kennedy	Politician Allison Roe (Rodney Local Board)	Consent lodgement	Lodged. Will get back next week to check for questions.
31/05/2019	Phone message	Ian Kennedy	Politician Cameron Brewer (AC and Rodney Local Board)	Consent lodgement	Lodged. Now in Council process. Welcome a call if you need more info.
31/05/2019	Phone call	Ian Kennedy	Politician Greg Sayers (AC Councillor)	Consent lodgement	Lodged. Private Plan Change to follow. Long term life looks to have a Precinct registered in Unitary Plan. Plan Change and Consent will catch up and be jointly notified.
31/05/2019	Phone message	Ian Kennedy	Neighbour Debbie and Ian Sarney	Consent lodgement	Message: lodged consent application. Will phone again.
31/05/2019	Phone call	Ian Kennedy	Neighbour Jeff Morrision (Izard Price lawyer)	Consent lodgement	Lodged yesterday. Plan Change (Precint) to follow to have long term place in Unitary Plan. Lodge Plan change in next month. Elections might delay joint notification.
31/05/2019	Phone message	Ian Kennedy	Neighbour Debbie and Ian Sarney	Consent lodgement	Message: Will phone back.
31/05/2019	Phone message	Ian Kennedy	Iwi Ren Blair (Ngati Whatua Orakei)	Consent lodgement	Message to Ren. Courtesy that we lodged. Will confirm email and copy to Ren, marama Royal, Jamie Sinclair and Ngarimu Blair.
31/05/2019	Phone message	Ian Kennedy	Neighbour Debbie and Ian Sarney	Consent lodgement	No answer. Didn't leave message due to repeat calls.
31/05/2019	Phone call	Ian Kennedy	Community group Stuart & Karen Windross, and others (MERRA)	Consent lodgement	Lodged yesterday. Addressed concerns. Explained Landfill Precint for long term record in Plan. Going for Private Plan Change in coming weeks. Possible 6 month to notification with all at the same time. Delay possibly assist rail. Appreciate the update. Will update his committee.
31/05/2019	Phone message	Ian Kennedy	Community group Bruce Scoggins Walkworth Area Liaison Grup	Consent lodgement	Message. Lodged. Planning a Private Plan change in about 1 month. Will catch up. IK to call back to explain more.
31/05/2019	Phone call	Ian Kennedy	Network utility operator Mark Bourke	Consent lodgement	Lodged and Plan Change coming in a few weeks. Joint notified and in libraries.
31/05/2019	Phone call	Ian Kennedy	Neighbour Tim Harrison	Consent lodgement	Consent now lodged. Not notified yet. Plan change to follow. This due to long term infrastructure needing to be get record in Planning Maps. Looking for Precinct. Same process but might only be next year due to Council elections. In libraries soon.
31/05/2019	Phone call	C Wills	Neighbour Sarney, 72 Spindler Rd	Consent lodgement	No action required.
31/05/2019	Phone call	C Wills	Neighbour Dave Fletcher, 70 Spindler Rd	Consent lodgement	No action required.

Date	Contact Type	Internal	Attendees		Topic of consultation	Outcomes/actions
			Type	Name		
31/05/2019	Phone call	C Wills	iwi	Glenn Wilcox (Independent Maori Statutory Board)	Consent lodgement	No action required.
31/05/2019	Phone call	C Wills	Neighbour	King, 78 Spindler Rd	Consent lodgement	No action required.
31/05/2019	Phone call	C Wills	Neighbour	McPherson, 133 Wayby Valley Rd	Consent lodgement	No action required.
31/05/2019	Phone call	C Wills	Iwi	Haahi Walker (Ngati Rango / Ngati Whatua)	Consent lodgement	No action required.
31/05/2019	Phone call	C Wills	Politician	Mark Mitchell	Consent lodgement	No action required.
31/05/2019	Phone call	C Wills	Neighbour	Brown, 76 Spindler Rd	Consent lodgement	No action required.
31/05/2019	Phone call	C Wills	Community group	Willie Wright (KHIMG)	Consent lodgement	No action required.
4/06/2019	Phone call	B Horide	Regulatory authority	Kelli Sullivan (NZTA)	Consent lodgment.	Message left.
4/06/2019	Phone call	B Horide	Regulatory authority	Dot Dalziell (Walking Access Commission) (WAC)	Consent lodgment.	Message left.
4/06/2019	Phone call	B Horide	Neighbour	Mrs McKenzie	Consent lodgment.	Notes strong storm flows from the Waiwhiu, Tomarata & Whangaripo streams. She said they'd sold 297 Wilson Rd.
4/06/2019	Phone call	B Horide	Public Interest	Raewyn Morrison Forest and Bird	Consent lodgment.	She appreciated getting the notice and will let others at F&B know. Other F&B members had been the Open Days.
4/06/2019	Phone call	B Horide	Neighbour	John Appleby 761B SH1	Consent lodgment.	He's concerned that the highway won't handle the traffic, and disappointed that the government is not investing in 'green' tech to avoid waste going into the ground. He'll be following events more closely.
5/06/2019	Phone call	B Horide	Regulatory authority	Jane Price (NZTA)	WM's programme after consent lodgment.	Agreed to meet before notification. Confirmed WM's intention to notify PPC and hear at the same time, at least six months away, which leaves time for more consultation.
6/06/2019	Email	T Nickels	Politician	Phil Goff	Consent lodgment.	No further action was required from WM at this time.
6/06/2019	Email	T Nickels	Politician	Bill Cashmore	Consent lodgment.	No further action was required from WM at this time.
6/06/2019	Email	T Nickels	Politician	Penny Hulse	Consent lodgment.	No further action was required from WM at this time.
6/06/2019	Email	T Nickels	Politician	Stephen Town	Consent lodgment.	No further action was required from WM at this time.
9/06/2019	Phone call	ARL 0800		Maori television 027 800 4961	No message left	Subsequent call to Ian Kennedy.
10/06/2019		I Kennedy	Iwi	Pieter Tuinder Ngati Manuhiri	Rahui	PT collected application at Redvale.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
10/06/2019	Phone call	I Kennedy	Politician Dr Jason Smith (Mayor Kaipara DC)	General Landfill consultation	JS has made statements on Landfill proposal but never met with WM. IK wants to set up meeting to consult. Left message for return call.
10/06/2019	Phone call	Ian Kennedy	Politician Beth Houlbrooke (Chair - Rodney Local Board)	Lodgement	Have been missing each others calls of late but she got my earlier messages. Appreciated the call. IK will email to Local Board secretary for circulation.
10/06/2019	Email	Ian Kennedy	Politician Rodney Local Board	Lodged consent	Following call to Beth Houlbrook, emailed to Vicki
15/06/2019	Meeting	I Kennedy, C Wills, B Macfarlane, B Horide	Community group Fight The Tip (5 reps)	Redvale Landfill site visit	WMNZ provided a PowerPoint presentation to explain how a landfill works like the one proposed for Wayby Valley, and took the party on a tour by van around the Redvale Landfill.
17/06/2019	Email	T Nickels	Iwi Conan Christmas (Ngati Manuhiri)	Invitation to visit WM's landfill in Canterbury.	WM will prepare a site visit programme. Subsequently: Info sent by TN to CC 18/6/19 about Canterbury Waste Services.
19/06/2019	Phone call	B Horide	Iwi Alan Riwaka (Te Runanga o Ngati Whatua)	Date for briefing.	AW will get back to WM with a date.
20/06/2019	Phone call	C Wills	Iwi Stephen Brown (Te Uri o Hau)	CVA and site visit.	SB will consider doing a CVA. SB is keen to join any visit to the ARL site.
20/06/2019	Email	ARL website	Iwi Sammy Williams (Trustee, Omaha Marae, Ngati Manuhiri)	Stated that they represent Ngati Manuhiri, rather than M Hohneck (Ngati Manuhiri Settlement Trust)	WM replied 24/6/19 with WM's contact details.
24/06/2019	Meeting	C Wills / B Horide	Iwi Alan Riwaka & 3 others (Te Runanga o Ngati Whatua)	Explanation of ARL proposal. Discussion on biggest issues for TRoNW.	WM to arrange site visits. WM to provide info on lining systems and a few other items.
24/06/2019	Email	I Kennedy	Politician Jackie Waymouth (on behalf of Jason Smith, mayor, Kaipara DC)	Invitation to meet or visit WM. Follows phone message left by IK a.m.	
25/06/2019	Email	B Horide	Regulatory authority Evan Keating (NZTA)	New point of contact at NZTA. NZTA are currently looking at WM's consent application. This email follows up a phone call earlier today (Keating/Horide).	NZTA will call to set up a meeting in two weeks.
26/06/2019	Meeting	C Wills / I Kennedy	Regulatory authority Dot Dalziel (Walking Access Commission)(WAC)	Proposed closures of unformed legal roads and proposed alternative easements.	General agreement. WAC will review and reply?
28/06/2019	Email	I Kennedy	Community group Dave Sawyer & 2 others (Fight The Tip)	Invitation remains open for others to visit or meet with WM.	IK followed up by email 5/7/19.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
2/07/2019	Phone call	I Kennedy	Iwi Pieter Tuinder (Ngati Manuhiri)	CVA, Cnsent Applciation and PPC	Initial conversation, a meeting is to be organised to discuss the PPC in more detail
3/07/2019	Email	I Kennedy	Politician Jackie Waymouth (on behalf of Jason Smith, mayor, Kaipara DC)	Repeat of email sent 23/6/2019 Invitation to meet or visit WM.	Jackie advised Jason Young away. Will get back in a week with does he want to me, and if so, Redvale or Kaipara.
6/07/2019	Email	I Kennedy	Community group Fight The Tip (M Carmichael)	Request to FTT for WM to present Private Plan Change proposal.	Invitation declined by FTT.
9/07/2019	Meeting	B Horide, R Signal-Ross	Iwi Piet Tuinder (Ngati Manuhiri)	Private Plan Change proposal.	Large scale plans to be provided (sent 10/7). Site visit to be arranged. Info to be provided on long term containment.
9/07/2019	Phone message	C Wills	Iwi Stephen Brown (Te Uri o Hau)	Offer of a visit to ARL site with others.	Message left.
10/07/2019	Email	B Horide	Regulatory authority Thelma Wilson (DOC)	Emailed through information package, consent conditions and proposed tracks.	Meeting to be arranged.
11/07/2019	Meeting	B Horide, C Wills	Iwi Te Runanga o Ngati Whatua (5)	Visit to ARL site and visit to Redvale Landfill. PPC rules and process explained.	They said they were much better informed now. Discussion highlighted several areas where WM could fill in info gaps and provide clearer benefits for their iwi (no due date set).
15/07/2019	Email	C Wills, I Kennedy, B Horide	Iwi Bill Kapea (Ngati Rango)	Update on Ngati Rango organisation.	Continue to keep in touch.
16/07/2019	Meeting	B Horide	Iwi Shona Oliver, Pani Gleeson (Nga Maunga Whakahii o Kaipara)	Familiarisation with the actual site. PPC explained.	Useful visit to see the site first hand.
16/07/2019	Meeting	B Horide, I Kennedy	Regulatory authority DOC (T Wilson, F McKenzie, S Sebregts) & WAC (D Dalziell)	Opportunities to enhance recreation in Sunnybrook Reserve, and proposed road stopping.	WMNZ will further develop its proposed road stopping to show how it takes recreation into account.
16/07/2019	Email	T Nickels	Iwi Ngati Manuhiri Settlement Trust	Maintaining contact. Mandated entities for Ngati Manuhiri.	Reply eml rec'd 17/7/19 20:13.
24/07/2019	Email	Ian Kennedy	Iwi Sammy Williams (Trustee, Omaha Marae, Ngati Manuhiri)	Mook Hohneck and consultation with Marae	WMNZ open to consultation at the request of the Chair of the Marae (Kororia Dennis)
30/07/2019	Meeting	B Horide, C Wills	Iwi Ngati Rango (3 reps)	Private Plan Change (PPC) proposal.	They'll read the rules tabled by T+T and get back to WMNZ. The plan showing the Subprecinct was considered very useful.

Date	Contact Type	Internal	Attendees		Topic of consultation	Outcomes/actions
			Type	Name		
1/08/2019	Email	B Horide & others	Iwi	William Kapea (Ngati Rango)	Proposed wānanga and site visit for Ngāti Rango. Reply to voicemail left by BH 31/7/19.	Ngati Rango to arrange their event and invite WM along to speak.
2/08/2019	Email	Matt Baber (T+T)	Regulatory authority	DOC	Proposed dates for ecology update meeting.	T Wilson is away. Aim for September. Alt dates suggested by email 6/8/19.
5/08/2019	Email	I Kennedy	Politician	Jason Smith (mayor Kaipara DC)	Invitation to meet.	Invitation declined by J Smith.
29/07/2019	Email	B Horide	Public Interest	ARL database	Project update. Addressing PPC.	N/A
2/08/2019	Email	Matt Baber (T+T)	Regulatory authority	DOC	Proposed dates for ecology update meeting.	T Wilson is away. Aim for September. Alt dates suggested by email 6/8/19.
5/08/2019	Email	B Horide	Iwi	Ngāti Te Ata	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Glenn Wilcox (Independent Māori Statutory Board)	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Willie Wright (KHIMG)	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Alan Riwaka (Te Runanga o Ngati Whatua)	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Sonny Nesbit (Te Roroa)	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Nga Maunga Whakahii o Kaipara Development Trust	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Ngāti Whatua o Kaipara	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Ngāti Maru	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Ngai Tai ki Tamaki	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Ngāti Whātua Ōrākei	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Te Kawerau a Maki	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Ngāti Wai	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Te Uri o Hau Settlement Trust	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Ngāti Rango	Project update. Addressing PPC.	N/A
5/08/2019	Email	B Horide	Iwi	Ngāti Manuhiri Settlement Trust	Project update. Addressing PPC.	N/A
6/08/2019	Email	Matt Baber (T+T)	Regulatory authority	DOC	Frog relocation and minutes of 30 April 2019.	Meeting to be arranged.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
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9/08/2019	Email	B Horide	Regulatory authority Evan Keating (NZTA)	Table of queries to wrap up interim safety audit.	Reply sent by Stantec to NZTA.
12/08/2019	Email	B Horide, C Wills	Iwi William Kapea (Ngati Rango)	Explanation of Ngati Rango's position.	WM to confirm it'll meet with Ngati Rango on the date & location proposed. Wananga/hui held 20/9/19.
16/08/2019	Phone call	I Kennedy	Iwi Piet Tuinder (Ngati Manuhiri)	Progress on review of consent application and acceptance by Trustees	Piet to present to Trustees on proposal in next meeting (2 weeks). Follow up phone calls 8 & 31/10/19.
16/08/2019	Phone call	I Kennedy	Iwi Angela (ex Chair)	Consultation. How and with whom?	Details of Kaumatua and Chair provided for future consultation.
16/08/2019	Meeting	I Kennedy, C Wills, B Macfarlane, B Horide	Politician Matt King	Presentation on Redvale and ARL proposal; Redvale site tour.	ARL proposal explained on site.
21/08/2019	Phone call	I Kennedy	Iwi Te Kiri Marae (Myra - Kaumatua and Trustee) (Ngati Manuhiri)	Request invite to present to Trustees	Potential meeting at end of the month. PS Phone call with chairperson 26/8/19.
22/08/2019	Email	B Horide	Iwi Gabriel Kirkwood (Ngai Tai ki Tamaki)	Reply to project update email re PPC.	Ngai Tai ki Tamaki will defer to Ngati Whatua o Kaipara and Ngati Manuhiri.
26/08/2019	Phone call	I Kennedy	Iwi Claudia Dennis (Chairperson, Te Kiri marae) (Ngati Manuhiri)	Proposal for WM to meet marae trustees in person.	Offer by WM declined graciously, prefer not to present to individual marae, would prefer to present to Ngati Manuhiri as a whole.
26/08/2019	Email	B Horide	Regulatory authority Dot Dalziell (Walking Access Commission, WAC)	Contact names for mtb groups, in response to inquiry from WM 26/8/19.	Two contacts known to WAC were provided to WMNZ. WMNZ sent them emails 27/9/19.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions	
		Internal	External Type Name			
26/08/2019	Meeting	B Horide	Regulatory authority	Evan Keating (NZTA, planner) Michael McQuillan (Beca, Safe Roads Alliance) Mark Newsome (NZTA, safety) Vivian Tadros (NZTA, project manager) Kevan Fleckney (NZTA, technical) Rachel Signal-Ross (T+T, planner) Don McKenzie (Stantec) Zoe Chen (Stantec)	WMNZ's proposal for roundabout and construction access; underground services e.g. Vector; NZTA want assurance that the entrance off SH1 is 'do-able'.	WM will prepare a legal agreement regarding the intersection. PS Legal meeting 15/11/19.
27/08/2019	Email	B Horide	Recreation	Miles Purchase, Jamie Roberts (Auckland Downhill)	Invitation to discuss potential mtb tracks.	They have WM's details if interested.
27/08/2019	Email	B Horide	Recreation	Graeme Stretch (Dome Valley mtb group)	Invitation to discuss potential mtb tracks.	Followed up by meeting 30/8/19.
27/08/2019	Email	B Horide	Recreation	Secretary (Auckland Mountainbike Club)	Invitation to discuss potential mtb tracks.	Followed up with phone conversation 29/8/19.
27/08/2019	Email	B Horide	Recreation	Jamie Roberts (Auckland Downhill)	Acknowledged email from WMNZ.	AKDH will get back.
27/08/2019	Email	B Horide	Recreation	Simon Yates (Secretary, Auckland Mountain Bike Club)	Acknowledged email from WMNZ.	AKMTB will be in touch.
27/08/2019	Email	B Horide	Recreation	D Sarney	Querying mountain bike track 'promises' before getting consents.	
28/08/2019	Meeting	B Horide (WMNZ), A Brabant and M Baber (T+T)	Regulatory authority	DOC Hamilton & Frog Relocation Group (multiple attendees including by dial in)	Frog relocation.	T+T will continue to look for and assess frog relocation. Management Plan is required. PS Application for permits to search was submitted in Nov'19; DOC was waiting on iwi consultation prior to issuing permits as at Feb'20.
29/08/2019	Phone call	B Horide	Recreation	Jon Kearins (Auckland Mountain Bike Club)	Mountain bike opportunities	AKMTB will support local involvement. Many constructive suggestions provided to WMNZ.

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		Internal	External Type Name		
30/08/2019	Meeting	B Horide	Recreation Graeme Stretch (Dome Valley mtb group)	Mountain bike opportunities	WMNZ's project explained. DVMTB maps shared. WMNZ will take this info into account in its plans.
5/09/2019	Meeting	C Wills, B Horide	Iwi Piet Tuinder (Ngati Manuhiri)	Site visit to Springhill, the forest, and the stream below the proposed landfill valley.	Useful familiarisation with the site. PT feels better prepared to report to the Manuhiri board, who he would like approval from before giving the ok to release the CVA.
10/09/2019	Email	ARL email	Public Interest Gavin stokes	Requesting a site visit.	WMNZ called him (CW c.18/9/19) and left a voicemail message.
12/09/2019	Meeting	B Horide (WMNZ), D McKenzie and Z Chen (Stantec)	Network utility operator Jay Kesha (Vector)	Effect of WMNZ's proposed roundabout on Vectors trench due for construction this year.	Stantec will prepare and send cross sections (sent 27/9/19).
13/09/2019	Email	ARL email	Neighbour Lee Laughton	Health Risk Assessment consideration of Spindler Road farm and swimming in stream.	Reply emailed to indicate how the HRA addressed risk in the Spindler Rd stream.
20/09/2019	Hui	WMNZ (6 reps) B Horide, I Kennedy, L James, M McSaveney, C Wills, B Macfarlane	Iwi Ngati Rango (8 reps)	Wananga: Ngati Rango's kaitiaki role and history of harm to their rohe.	Advancement of understanding between Ngati Rango and WMNZ.
21/09/2019	Hui	B Horide, I Kennedy, L James, M McSaveney, C Wills	Iwi Ngati Rango (6 reps)	Wananga: Continued discussion, and presentation from WMNZ including PPC site plan and slides with explanation.	Advancement of understanding between Ngati Rango and WMNZ.
21/09/2019	Meeting	B Horide, I Kennedy, L James, M McSaveney, C Wills	Iwi Ngati Rango (7 reps)	Site visit for familiarisation.	Visit to see the site first hand.
23/09/2019	Email	C Wills	Iwi Raewyn Mercer (Ngati Rango)	Invitation to visit Redvale.	Subsequently 19/2/20 Ngati Rango visited Redvale. But invitation remains opens if more members of Ngati Rango wish to visit the site.
1/10/2019	phone call	B Horide	Regulatory authority I Tulloch (AT Auckland Transport)	Proposed road stopping. Purpose of proposed meeting.	WM to send its updated plans before meeting. PS Sent 17/10/19. Met 21/10/19.
2/10/2019	Meeting	B Horide (WMNZ), A Brabant and M Baber (T+T)	Regulatory authority Thelma Wilson (DOC), Fiona McKenzie (DOC)	S92 responses; access to Sunnybrook Reserve; frog relocation.	T+T will undertake frog surveys at potential relocation sites once permits are granted by DOC.
3/10/2019	Email	I Kennedy	Community group MERRA	Kiwirail update	general questions re govt announcement
4/10/2019	Email	B Horide	Regulatory authority Thelma Wilson (DOC)	TW provided a contact for aerial surveyors.	For WM information.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
7/10/2019	Email	I Kennedy	Community group MERRA	Kiwirail update and invite to meeting	IK willing to meet to update. Will wait for MERRA invite
8/10/2019	Phone call	Ian Kennedy	Iwi Ngati Manuhiri Piet Tuinder	Progress on CVA and seeking authority to release CVA version #1 to AC.	Still working through AEE and seeking instruction from Trustees. he is updating the CVA and hopes to get it to us in the next 2 – 3 weeks. Hopefully as a draft so we can discuss before he finalises it. PS follow phone call on 31/10/19.
14/10/2019	Email	B Horide	Regulatory authority Dot Dalziel (Walking Access Commission, WAC)	WAC willing to attend meeting with WMNZ and NZTA.	Attendance at upcoming NZTA meeting arranged.
16/10/2019	Email	B Horide	Regulatory authority Dot Dalziel (Walking Access Commission, WAC)	Roundabout design as it may affect WAC's public access recommendations.	Copies of roundabout drawings provided as requested by WAC.
21/10/2019	Email	I Kennedy	Network utility operator KiwiRail (Steve Muir)	Update on proposals for upgrading rail to Northland. Response to request from WMNZ 10/10/19.	Keeping in touch.
21/10/2019	Meeting	I Kennedy B Horide	Regulatory authority I Tulloch and M Campbell (AT Auckland Transport), Dot Dalziel (WAC)	Road-stopping process.	WM will engage a surveyor and prepare an application. PS Under way as at Feb'20.
25/10/2019	Email	B Horide	Iwi Alan Riwaka, Jo Nathan (Te Runanga o Ngati Whatua)	Ecology report. Waterways plan. WM's Guide to groundwater. Consent applications update on resource consents, PPC and road-stopping.	Ecology report delivered by T+T filedrop link 29/10/19.
25/10/2019	Email	B Horide	Iwi George Albert, Richard Nahi, Te Arahi Kapea (Ngati Rango)	Ecology report. Waterways plan. Consent applications update on resource consents, PPC and road-stopping.	Ecology report delivered by T+T filedrop link 29/10/19.
25/10/2019	Email	B Horide	Regulatory authority Thelma Wilson (DOC)	Ecology report.	Ecology report delivered by T+T filedrop link 29/10/19.
31/10/2019	Meeting	Ian Kennedy	Network utility operator Steve Muir, KiwiRail	waste by rail	\$95M govt fund will merely keep current service and not upgrade to allow for waste by rail
31/10/2019	Email	Ian Kennedy	Community group MERRA, Stuart Windross	waste by rail	\$95M govt fund will merely keep current service and not upgrade to allow for waste by rail
31/10/2019	Phone call	Ian Kennedy	Iwi Piet Tuinder (Ngati Manuhiri)	CVA	PT will present his analysis of the application to the NM trustees soon.

Date	Contact Type	Attendees			Topic of consultation	Outcomes/actions
		Internal	Type	External Name		
4/11/2019	Meeting	B Horide	Regulatory authority	John Robson, Belinda Petersen, Kelli Sullivan, Evan Keating (NZTA)	Update on WW2W and WMNZ projects.	Clarification of project programmes.
4/11/2019	Phone call	B Horide	Landowner	Lisa	Potential effects on odour and groundwater at a property she is considering purchasing in Whangaripo Valley Road.	Discussion on odour complaints and direction of groundwater flow. PS Follow up call made by Chris Wills on 5/11/19.
7/11/2019	Email	B Horide	Regulatory authority	Evan Keating (NZTA)	Auckland Council's S92 questions - copy of selection on traffic.	Provided FYI. PS Receipt acknowledged by EK 8/11/19.
15/11/2019	Meeting	B Horide, Counsel	Regulatory authority	Evan Keating, Justys Vickers (NZTA), Counsel	Legal agreement for roundabout on SH1.	WMNZ to expand draft terms provided by NZTA.
21/11/2019	Meeting	I Kennedy	Neighbour	Tim Harrison	Potential effects.	Contact to continue.
25/11/2019	Email	B Horide	Iwi	Shona Oliver, Pani Gleeson (Ngati Whatua o Kaipara and Nga Maunga Whakahii o Kaipara)	Ecology report. Waterways plan. Consent applications update on resource consents, PPC and road-stopping.	Ecology report delivered by T+T filedrop link on 25/11.
4/12/2019	Phone call	B Horide	Network utility operator	Ian Mcburney (Vector contracted project manager)	Vector's proposed trench across WMNZ's proposed roundabout.	Review again in Feb'20 when WMNZ have a preliminary design.
4/12/2019	Phone call	B Horide	Iwi	Alan Riwaka (Te Runanga o Ngati Whatua)	Alan returned BH's message of earlier today. TRoNW would like to discuss groundwater, waste disposal alternatives, Olivine technology, ecology.	Email sent by BH 4/12 suggesting some dates. Subsequent meeting 28/1/20.
27/11/2019	Meeting	I Kennedy	Politician	Erica Stanford	Redvale and ARL consultation	Provided information on landfill operation, ARL proposal.
2/12/2019	Phone call	I Kennedy	Iwi	Ngati Manuhiri Pieter Tuinder	Follow-up Ngati Manuhiri re their response to Application provided to them in May and approval to release CVA to AC. Left message	Left message.
6/12/2019	Phone call	I Kennedy	Iwi	Ngati Manuhiri Pieter Tuinder	Left another message re progress with Trust and the CVA	Left message.
6/12/2019	Email	I Kennedy	Politician	Chris Penk	Invite to Redvale ARL for new year	Awaiting response.
12/12/2019	Email	I Kennedy, B Horide	Iwi	Piet Tuinder (Ngati Manuhiri)	Update, CVA under consideration by trustees.	Awaiting review by Ngati Manuhiri trustees. Subsequent meeting and status update 20/2/20.
13/12/2019	Phone call	C Wills	iwi	William Kapea (Ngati Rango)	Potential to meet with WMNZ MD. Invitation to do a CVA.	Discuss again after Xmas. Subsequently 19/2/20 Ngati Rango presented Taonga to WMNZ at Redvale.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions
		Internal	External Type Name		
17/12/2019	Phone call	B Horide	iwi Piet Tuinder (Ngati Manuhiri)	Aiming for meeting in January. Concern about narrowing opportunities for their input.	IK / PT to be in touch this week. Subsequent meeting and status update 20/2/20.
18/12/2019	Phone call	I Kennedy	iwi Piet Tuinder (Ngati Manuhiri)	Opportunities for their input, opportunities offered to NM to date, CVA and invoices	Meeting to be scheduled for late Jan / early Feb. Subsequent meeting and status update 20/2/20.
13/01/2020	Email	C Wills, B Horide	iwi William Kapea (Ngati Rango)	Update on Ngati Rango's own discussions; CVA prep; suggested meeting with WMNZ Managing Director.	WM to find some compatible dates.
14/01/2020	Email	B Horide	iwi Piet Tuinder (Ngati Manuhiri)	Ecology management plans	Opportunity to review documents.
16/01/2020	Email	C Wills	iwi William Kapea (Ngati Rango)	Dates available to meet Ngati Rango.	Date to be confirmed.
23/01/2020	Phone call	C Wills	iwi Stephen Brown (Environs, Te Uri o Hau)	discussion about impact on Kaipara. TUoH intend to provide a CVA.	SB will send a proposal to WMNZ. SB intends to attend meeting with TRoNW on 28/1/20. PS TUoH will defer CVA to TRoNW.
23/01/2020	Phone call	B Horide	iwi Alan Riwaka (Te Runanga o Ngati Whatua)	Agenda for meeting/hui next Tuesday. Olivine will attend.	Agreed attendees. WM request 40 minutes to present its proposal.
28/01/2020	Hui	WMNZ (3 reps) Bruce Horide, Chris Wills, Ian Kennedy, and T+T (1 rep) Leon Pemberton	iwi Alan Riwaka (Te Runanga o Ngati Whatua) + 21 others + 3 Olivine reps	Hui. Presentations made by WMNZ on the proposed landfill and by Olivine on their technology.	Presentation slides sent to TRoNW on 29/1/20.
28/02/2020	Hui	I Kennedy	iwi Mikaera Miru	Invite to Redvale	IK invited Mikaera to Redvale. He again declined, saying he does not want the landfill there. Wouldn't feel as strongly if it was elsewhere. Concerned with Hochstetter frogs, Hoteo and Kaipara.
3/02/2020	Email	B Horide	iwi Stephen Brown (Environs, Te Uri o Hau)	Email to follow up phone call (Brown/Horide) earlier today. Te Runanga favour a coordinated approach from its hapu. WM's proposal will likely be Publicly Notified March.	Te Uri o Hau will hold off proceeding with its own CVA, awaiting Te Runanga's lead on a response on an iwi-wide basis.

Date	Contact Type	Attendees		Topic of consultation	Outcomes/actions	
		Internal	External Type Name			
14/02/2020	Meeting	T Nickels, M McSaveney, I Kennedy, M Cadman, B Horide	Regulatory authority	Andrew Bauke, Max Gander-Cooper, Kirsty Prior (DOC)	Presentation on WM company, Redvale Landfill, and proposed ARL landfill.	
19/02/2020	Meeting	WMNZ (Managing Director + 5 reps) T Nickels, I Kennedy, C Wills, R Forster, B Horide, M McSaveney.	Iwi	Ngati Rango (7 reps)	Presentation of Ngati Rango's Nga Taonga Tuku Iho book to WMNZ.	WMNZ to respond to Ngati Rango.
20/02/2020	Meeting	T Nickels, I Kennedy, B Horide	Iwi	Mook Hohneck, Ringi Brown, Jason Pou, B Diamond (new General Mgr), Piet Tuinder (Ngati Manuhiri)	Ngati Manuhiri's issues around WMNZ's proposal. Relationship development.	Both parties will advance the concept of a mitigation agreement.
20/02/2020	Email	I Kennedy	Regulatory authority	Dot Dalziell (WAC)	Invitation to meet to discuss walking route.	Agree when and where to meet. PS comms with WAC and DOC 21/2/20 to set up a site visit.
21/02/2020	Email	B Horide	Regulatory authority	Alex Wilson (DOC)	Invitation to meet on site to look at carpark and possible track route in bush.	Alex requested records of past consultation.
25/02/2020	Phone call	I Kennedy	Iwi	Piet Tuinder (Ngati Manuhiri)	Follow up on meeting of 20/2/20: Asking to meet to discuss concerns, and; seeking to progress a mitigation agreement.	IK left a phone message.

Appendix G: Traffic assessment

30 January 2020

Waste Management New Zealand Ltd
PO Box 228
Silverdale
AUCKLAND 0944

**Attention: Bruce Horide
Ian Kennedy**

Dear Bruce / Ian

Auckland Regional Landfill – Request for Further Information

Stantec is pleased to provide the following response to the traffic comments received from Auckland Council, dated 24 December 2019 with regards to the Private Plan Change application and the additional Section 92 comments dated 30 January 2020 with regards to the Resource Consent application, in respect of the above project.

1. Introduction

Following receipt of the Private Plan Change application for the above development, Auckland Council has issued a request for further information under Clause 23(2) of the Resource Management Act 1991 (**“the request”**), dated 24 December 2019. Auckland Council has also included these traffic comments within an additional request for further information under Section 92 of the Resource Management Act in regard to the Resource Consent application, dated 30 January 2020.

The following response addresses the transport related matters raised within the request for the proposed Auckland Regional Landfill (**“ARL”**) in Wayby Valley. These queries are cited in *italics* for ease of reference with the Stantec response following.

This response builds on the Integrated Transport Assessment (**“ITA”**) prepared by Stantec dated May 2019 in regard to the ARL.

2. Responding to Request for Further Information

Transport Bullet Point 1

“Traditionally, analysing the AM and PM peaks during the week is generally acceptable. However, given the popularity of this road during the weekend, particularly in summer periods, separate modelling for the weekends is needed to assess the situation fully”.

The reported traffic generation of 520 trips per day and the subsequent morning and evening peak hour traffic generation (as shown in Table 5-2 of the ITA) has been determined based on the expected peak hour traffic during the year. This has been assessed by considering the characteristics and patterns of current waste volumes, customers and total waste volume acceptance at the Redvale Landfill.

As experienced at the Redvale Landfill, the peak traffic generation associated with a regional landfill is strongly influenced by contaminated soils during the summer construction season, which are typically transported by contractors and hauliers on weekends and outside the weekday peak periods. Therefore, the peak traffic generation of waste truck movements (520 trips per day inclusive of both inbound and outbound movements) used in the modelling assessment is expected to occur on a Saturday.

In regards to holiday and weekend traffic, traffic flows from the New Zealand Transport Agency (“NZTA”) traffic count database on State Highway 1 (“SH1”) at a count site south of Wellsford across the first week of January 2019 (which can be considered the peak holiday period) have been analysed. Traffic data from NZTA database shows that a the two-way SH1 volume on Saturday 5 January 2019 was approximately 4,100 vehicles and 4,600 vehicles in the morning and evening peak four-hour periods, respectively. Assuming a 3% growth rate per annum (consistent with the growth rates used in the ARL ITA assessment), it is expected that the peak traffic flows on SH1 in 2028 (corresponding with an expecting year of ARL established operation) would be approximately 5,400 vehicles and 6,000 vehicles in the morning and afternoon peak-four hour periods, respectively.

A peak intensity of 72 waste truck movements (inclusive of laden inbound and unladen outbound movements) is expected to occur between 8am to 12am, and 12 and 4pm, which coincides with the identified four-hour peak period of SH1 usage. Across these morning and afternoon peak four-hour periods, the ARL traffic generated represent approximately 1% of the total SH1 Saturday holiday traffic. Such additional flows are considered to be well within the day-to-day and peak period to peak period variation of flows already being carried by the highway.

Heavy vehicle volumes during the peak four-hour period on the same day were recorded at 426 vehicles and 468 vehicles in the morning and evening peak four-hour period respectively. Considering the estimated background traffic growth between the 2019 data and the year of established operation, approximately 560 and 610 heavy vehicles in the morning and afternoon peak four-hour period respectively are expected to travel through this section of SH1 in 2028. The heavy vehicle generation of the landfill represents an increase of approximately 12% to 13% of the predicted heavy vehicle volumes along SH1 in 2028, taking the total proportion of heavy traffic from 10% to 11% of the total traffic within the peak four-hour periods (i.e. a 1% increase).

The proportional increase in traffic associated with the landfill during the summer periods remains modest and would not adversely affect the operation of the highway. It is noted that during the other January 2019 analysed periods SH1 traffic data record showed greater proportion and total number of heavy traffic movements. Analysis of the January 2019 data reveals that the hourly heavy vehicle proportion regularly exceeds 10% of the total traffic, both on a Saturday and weekdays.

In addition, the above assessment has been undertaken on the assumption that the peak waste truck generation would remain consistent during the summer holiday period. Whilst the waste truck generation over the holiday period is influenced by many factors, it is commonly known that residential waste tonnage collected during this period is less than on a regular day. Similarly, contaminated soil tonnages are known to drop during the Christmas and New Year break. In this regard, the above assessment is considered to provide a suitably conservative assessment of the effect of the landfill on weekend and holiday traffic.

Modelling undertaken within the ITA incorporated multiple levels of conservatism such as:

- assuming co-incident waste and non-waste peak periods; and
- upper estimate of waste volume generation.

As the modelling results in the ITA show that the proposed roundabout will operate with minimal delays and additional available capacity, no further modelling of SH1 holiday period is considered necessary.

Overall, it is considered that the modelling undertaken within the ITA is sufficient to understand the overall traffic effects of the proposed plan change and consent application.

Transport Bullet Point 2

“The operational impact of heavy vehicles travelling though Dome Valley from Warkworth to the proposed roundabout requires further assessment. With the daily addition of 260 heavy vehicles it

is assumed there will be an impact on traffic flows, particularly on the up-hill sections. An assessment is to include, but not be limited to, grades of hills to and from the roundabout, passing lanes in each direction, horizontal geometry, existing speed limits and operational speeds. This is particularly important as it has been noted that Dome Valley has a very high number of crashes, with almost 20% being directly related to overtaking”.

It is noted that this section of SH1 already carries a high heavy vehicle proportion, both during the weekday and on the weekend, with heavy vehicle proportions varying between 8% to 15% in 2019. As discussed previously, the ARL activity is expected to increase heavy vehicle volumes by 12% to 13% in the ARL 2028 operational year, taking the proportion of heavy traffic within the weekend peak four-hour periods to 11% of the total peak traffic volume (i.e. an increase in total heavy vehicles of approximately 1%). It is acknowledged that the increase in heavy vehicles will have some impact on traffic flows and speeds, however, the provision of various passing and slow lanes as currently exist (in part) and as being upgraded within the current NZTA safety improvements through the Dome Valley, will assist in the mitigation of any negative effects additional vehicles may have compared to the existing environment. It is also noted that the projected volumes and proportions of heavy traffic carried along the highway while giving rise to additional traffic flows along the highway are not greatly inconsistent with other periods of heavy traffic movements at other time of the week.

The NZTA Dome Valley Safety improvements being undertaken within the Safer Networks Programme will enhance the consistency of lower travel speed expectations and enhance the safety of any overtaking manoeuvres being undertaken. Work involves installing flexible median safety barriers and replacing the northbound and southbound passing lanes at the top of the Dome Valley with a wider shoulder, allowing slow vehicles space to pull over. These improvements are expected to be completed well in advance of the construction of the ARL access roundabout and other works for the ARL project, and are expected to positively address the high proportion of overtaking crashes and provide a more consistent speed environment. It is noted that all works on SH1 including grades and geometry will be subject to the express approval of NZTA and accordingly, these design matters will be addressed during the consent application.

We trust that the above response meets your requirements, however, please do not hesitate to contact us if you have any queries on the above.

Yours sincerely



Zoe Chen
Transportation Engineer
Stantec New Zealand



Saul Vingrys
Traffic Engineering and Transport Planning Lead – Auckland
Stantec New Zealand