IN THE ENVIRONMENT COURT
AT AUCKLAND

I TE KŌTI TAIAO O AOTEAROA
KI TĀMAKI MAKAURAU

Decision [2023] NZEnvC 277

IN THE MATTER	of appeals under sections 120 and 121 of the Resource Management Act 1991 (**RMA/the Act**)
AND	
IN THE MATTER	of an application by Waste Management NZ Ltd for resource consents to construct and operate a new landfill at 1232 State Highway 1, Wayby Valley, Wellsford
BETWEEN	TE RŪNANGA O NGĀTI WHĀTUA (ENV-2021-AKL-076)
	ROYAL FOREST AND BIRD PROTECTION SOCIETY OF NEW ZEALAND INCORPORATED (ENV-2021-AKL-078)
	DIRECTOR-GENERAL OF CONSERVATION (ENV-2021-AKL-079)
	FIGHT THE TIP: TIAKI TE WHENUA INCORPORATED (ENV-2021-AKL-082)
	NGĀTI WHĀTUA ŌRĀKEI & ENVIRONS HOLDINGS LIMITED (ENV-2021-AKL-085)

CHANNEL INFRASTRUCTURE NZ LIMITED (as to protection of gas pipeline only)
(ENV-2021-AKL-084)

Appellants

MANUHIRI KAITIAKI CHARITABLE TRUST
(withdrew as Appellant January 2023)

(ENV-2020-AKL-080)

AND

AUCKLAND COUNCIL

Respondent

Court:	Judge J A Smith Judge M J Dickey Commissioner R Bartlett Commissioner G Paine Commissioner K Prime
Hearing:	20-23 June 2022, 25-28 July 2022, 1-11 August 2022, 25-31 October 2022, 1-4 November 2022, 21-25 November 2022, 1-2 February 2023, 20-24 March 2023, 29-31 March 2023, 3-6 April 2023, 13-14 April 2023, 19 April 2023, 24 April 2023 and 27-28 April 2023
Appearances:	B Matheson, S Pilkinton and M Mitchell for Waste Management NZ Ltd (**The Applicant/Waste Management**) D Hartley and A Buchanan for Auckland **Council** J Pou and T Urlich for Manuhiri Kaitiaki Charitable Trust (**MKCT**) s 274 party with Appeal withdrawn January 2023. R Enright for **Te Rūnanga o Ngāti Whātua** and Trustees of Ngā Maunga Whakahii o Kaipara Development Trust R Haazen for **Ngāti Whātua Ōrākei** and Environs Holdings Ltd and **Te Uri o Hau** S Ongley and M Hooper for the Director-General of Conservation (**Director-General**) P Anderson and M Downing for Royal **Forest and Bird** Protection Society of New Zealand A Braggins for **Fight the Tip** Tiaki Te Whenua Inc W Foster appearing for himself Channel Infrastructure NZ Ltd no appearance– abide decision on the basis of agreed condition related to fuel pipeline
Date of Decision:	21 December 2023
Date of Issue:	21 December 2023

INTERIM DECISION OF THE ENVIRONMENT COURT

This Court concludes:

A: A modified Application, conditions and Management Plans could meet the purpose of the Act, and the provisions of the AUP.

B: Further work is required to identify:

(a) whether the Northern Valley can be retained (unlogged) for 7-10 years while the frog population improves;

(b) whether the downstream area of landfill and the separation of waters can be improved to deal with:

(i) high rainfall;

(ii) landslip or failure of the landfill;

(c) the arrangement with tangata whenua (including MKCT) can be resolved as conditions of consent or other agreements.

C: Waste Management is to file and serve a memorandum with its response and timeline to issues raised in B. This memo is to be filed by 31 January 2024.

D: Auckland Council and MKCT are to file any additional memoranda by 9 February 2024.

E: Appellants and s 274 parties are to file any memoranda in response by 1 March 2024.

F: The Court will convene a judicial conference or make further directions as necessary.

G: Costs issues (if any) will be subject to directions after any final decision.

REASONS

A. Background – the proposed landfill

Proposed landfill

[1] These appeals relate to an Auckland Council decision to grant resource consents to Waste Management New Zealand Ltd to establish and operate a new class 1 landfill at 1232 State Highway 1 (**SH1**), Wayby Valley near Wellsford.

[2] The application was highly contentious, and the decision of the Council-appointed Commissioners was divided. Those who have filed appeals support the minority decision of Commissioner Tepania; while Waste Management and Auckland Council support the decision of the majority.

[3] There was a contemporaneous application for a plan change to establish a regional landfill in this area which was refused by the same Commissioners. The decision on that application for plan change has not been appealed.

[4] The position of the Council, and now Manuhiri Kaitiaki Charitable Trust (**MKCT**), is to support the majority decision of the Council subject to extensive changes to the conditions of consent. The latest version of conditions was produced in closing on 28 April 2023. The conditions are numerous and rely in part on draft management plans that have yet to be finalised. The final management plans are critical to a full understanding of the activity and the conditions.

The site

[5] **The Site** covers parts of two significant properties, known as Springhill Farm and [the part of] Rayonier Matariki Forests (**Matariki Forests**) between Wilson Road and Springhill, comprising around 1,070 ha.

[6] The **Landfill Footprint** itself is in the order of 80 ha and has a preliminary design showing around 30 million cubic metres of landfill space available. It fills what we will refer to as the **Landfill Valley** on the Matariki Forests land. Associated with this are other development areas, including those for spoil stockpiles, gas recovery and leachate treatment, site offices, settlement ponds and other water management features, along with roading. Beyond the immediate Landfill Footprint a large area for predator-proof fencing covering several large wetlands is proposed, and additional borrow areas in addition to the large spoil stockpile. This is largely on Springhill land.

[7] The Landfill Footprint will be seated within the valley floor of the Landfill Valley (map attached as **Annexure A – Fig.2** from Mr John Goodwin's evidence). It will be built in stages from the base towards the top of the valley. The anticipated fill life for the landfill is around 30 years depending on waste volumes received, followed by disestablishment and remediation. **Annexure B – Fig. 8**, from the same evidence, shows the layout of the landfill's physical components.

Range of waste

[8] Waste Management intends the landfill to be operational on completion of the filling of the Redvale Landfill anticipated to occur by 2028. Redvale Landfill currently receives some of Auckland Council's waste, particularly from the central and northern parts of the Auckland region. However, evidence was clear that much of Redvale Landfill is utilised for commercial and demolition waste, as this new landfill would be.

[9] The Auckland Waste Assessment 2017 recorded that 15% of waste is from household kerbside sources and 85% from commercial sources. The most readily available composition data is from 2016,[1] as follows:

	Percent	Estimated Tonnes
Paper	8%	144,000
Plastics	12%	216,000
Organics	19%	342,000
Ferrous	2%	36,000
Non-ferrous	1%	18,000
Glass	1%	18,000
Textiles	4%	72,000
Nappies & Sanitary	2%	36,000
Rubble	21%	378,000
Timber	10%	180,000
Rubber	2%	36,000
Potentially hazardous	17%	306,000
TOTAL	**100%**	**1,800,000**

[10] Although Waste Management seeks no particular constraints on the sources of waste, it is clear that the primary intention will be to serve the northern part of the Auckland Region, including Warkworth, with the potential to also supply services to points further north such as Wellsford and the Kaipara District.

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[1] Table 8: Auckland Residual Waste Composition; EIC, Mr Duncan Wilson, dated 26 April 2022, at [11.5].

Outline of intended operation

[11] Waste Management intends that transportation of waste will occur via current SH1. In the event that a new state highway is constructed between Warkworth and Wellsford during the life of the landfill, then a connection point would be constructed to Wayby Valley Road and thus to the existing SH1. A new roundabout will be constructed on SH1 to allow all traffic to enter the site. Incoming waste-filled trucks will access a 24-hour bin exchange area where the incoming bins will be exchanged for empty bins and these trucks will then depart the site.

[12] The Site's main access road will be constructed from the bin exchange area up to the landfill site and will act as an internal trucking route for specialised trucks, operated by Waste Management staff. These trucks will transport the bins to the deposit areas within the landfill in accordance with a written programme for the placement of waste (an operation management plan). That route also provides access to all other site facilities.

[13] The bin exchange area is very close to Sunnybrook Scenic Reserve and situated on the Waitaraire Stream, a tributary to the Hōteo River, in which aquatic and benthic values have been identified.

[14] During the construction period when the Site is being prepared, access will be obtained via a private road known as Wilson Road, which is accessed off SH1 some kilometres further to the south in Dome Valley. This access point is close to several properties, some residential, one of which is immediately adjacent to the entry point. Vehicles will need to traverse relatively steep terrain to access the balance of the Site for construction purposes.

[15] It appears inevitable that some of the construction vehicles will also need to enter through the Springhill Farm access, given the relatively easier terrain and readier proximity to certain areas such as the base of the landfill, the stream areas and the stockpile areas.

[16] Construction at the Site will take approximately five years, making a total period of at least 35 years with the landfill operation. The landfill itself will be constructed in stages, including the removal of existing plantation pine forest, excavation to form the landfill shell and construction of water management facilities both within the landfill itself and downstream, as treatment ponds. A liner system will be required to contain the waste and this will be constructed in stages once the site is operational, as the landfill develops. The development will include both leachate collection and containment infrastructure and stormwater management infrastructure.

Hearing

[17] This hearing commenced in June 2022.

[18] As the hearing progressed, it became clear that there were aspects of the application that Waste Management had not fully explored with the other parties. The hearing was suspended for several months while the parties held further discussions. By agreement, they returned to the Court and asked to continue with the hearing.

[19] In January 2023 we were advised that Waste Management had reached an agreement with MKCT such that it now supported the application. Waste Management made a number of significant concessions in terms of the conditions of consent and entered into a side agreement to provide land for housing, funding and to transfer the entire block to MKCT on completion of the landfill activity.

[20] That raised questions as to the status of MKCT's appeal, and the evidence already filed and cross examination conducted.

[21] Eventually its appeal was withdrawn, but MKCT continued as a s 274 party. The evidence that had already been filed on the matter, particularly from Mr Mook Hohneck, was still supported. Mr Greg Carlyon, a planning witness originally called by both MKCT and Te Rūnanga o Ngāti Whātua, was now called only by Te Rūnanga o Ngāti Whātua and he remained as a witness for them, although subject to cross-examination by Mr Pou for MKCT.

[22] In later discussions it transpired that the earlier adjournment for discussions to occur between the parties was more narrowly focussed than had been indicated to the Court. The discussion was, we understand, primarily with Ngāti Whātua about an alternative site, and MKCT was involved in the discussions only at the preliminary stage.

[23] The change of position has meant that much of the evidence given at the earlier stages of the hearing, some subject to vigorous cross-examination by Mr Pou, needs to be re-examined in the context of the agreement reached.

The appeals

[24] The wide range of issues raised by the appellants relate to:

(a) the use of landfill as opposed to other waste minimisation techniques and residential interests;[2]

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[2] Particularly Fight the Tip, individual local resident submitters, Mr Foster, Kaipara District Council, Ngāti Whātua Ōrākei and Te Uri o Hau, MKCT.

(b) operational and development concerns;

(c) relationship of Māori with the values of the area;[3]

(d) ecological concerns.[4]

[25] When MKCT changed its position to support the proposal it did not change its evidence on its cultural concerns. Mr Hohneck made it clear that without the amended conditions now proposed by Waste Management and MKCT and the further agreement that was reached, MKCT would still oppose the application.

[26] The position for Te Rūnanga o Ngāti Whātua and Ngā Maunga Whakahii o Kaipara (we refer to them both as **Ngāti Whātua**),[5] Ngāti Whātua Ōrākei and Te Uri o Hau[6][7] (when we refer to Te Uri o Hau we are also referring to Environs Holdings Ltd) is that their concerns remain and that these should lead to the decline of the application.

[27] There are a number of other issues arising in this case beyond the above key issues relating to local amenity (noise, effects on residents of the construction road, odour), and the need for this particular site or a new landfill at all.

Further refinement of proposal and concessions

[28] In his thorough and thoughtful final submissions, Mr Matheson, for Waste Management, indicated that there had been further development of the conditions of consent and indicated several significant changes.

[29] The major one of these is a proposal that the **Northern Valley**, the valley immediately north of the Landfill Valley, would now be subject to a significant change in ecological approach so that the riparian margins of the main stem of the stream at the base of the valley are preserved in the long term as habitat for native species, including pepeketua | Hochstetter's frog, pekapeka-tou-roa | long-tailed bat, mokomoko | lizards and other important native species.

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3 Te Rūnanga o Ngāti Whātua (and Ngā Maunga Whakahii o Kaipara), Ngāti Whātua Ōrākei, Te Uri o Hau, Environs Holdings Ltd (a company operating under a wider remit for Te Uri o Hau) and MKCT.

4 Particularly Royal Forest and Bird Protection Society of New Zealand Incorporated (**Royal Forest and Bird**), Director-General of Conservation (**Director-General**) and all other appellants in support of them.

5 Te Rūnanga o Ngāti Whātua and Ngā Maunga Whakahii o Kaipara are Post Settlement Governance Entities. The latter manages Te Rūnanga's settlement assets.

6 Both are hapū of Ngāti Whātua a iwi. Environs Holdings Ltd is the environmental management arm for Te Uri o Hau.

7 We include Environs Holdings Ltd when we refer to Te Uri o Hau.

[30] These changes were not ones that we were able to discuss with any of the other parties. We address them later in the decision.

The necessary consents

[31] The Site is in the Rural-Rural Production Zone. There is common ground that the application for this landfill consent is overall a non-complying activity. It requires numerous consents, including for land use as a non-complying activity, discharges to land, air and water and for reclamation.

[32] Waste Management conceded that the application for consent does not pass the first limb of the threshold test under s 104D(1)(a), which requires that the proposal's effects be minor. In fact, in several respects there was evidence that without offset or compensation (countervailing benefits under s 104(1)(ab)), the impacts of the activity would be significant. These are particularly in the following areas:

(a) the loss of stream length and function (12.2 km of permanent and intermittent streams);

(b) impact upon Hochstetter's frogs (the potential loss of between 500 and 2,000 animals);

(c) impact on lizards and bats;

(d) effects on amenity;

(e) effects on the relationships of iwi and hapū with the values of the area.

[33] In relation to the second limb of the threshold test under s 104D(1)(b), which requires that the proposal not be contrary to objectives and policies of the Auckland Unitary Plan Operative in Part (**AUP**), Waste Management and the Council conceded that the application does not meet some policies. However, their view is that giving appropriate weight to the wording and context of each of the provisions, and the changes to conditions and further proposals, the application does pass the s 104D threshold when viewed against the objectives and policies of the AUP as a whole.

[34] Waste Management says that, taking into account the offset and compensation benefits (particularly those relating to approximately 50 km of riparian enhancement), the predator-proof fenced area around the Springhill Farm wetlands and surrounds, and the other significant mitigatory offset and compensation steps proposed, the application should be granted consent on the merits under s 104(1).

Section 290A – Decision of the first instance

[35] Section 290A of the RMA states the Court must have regard to the decision appealed. We conclude we must have genuine regard to that decision and have reasons for departing from it. Where the proposal becomes more refined or new cases or new evidence becomes available, these may be reasons for a change in outcome.

[36] The Commissioners agreed that the application did not pass the effects threshold under s 104D(1)(a). They accepted that their consideration of the adverse effects under this section must not include offset or compensation.

[37] The majority determined that the application is contrary to some objectives and/or policies. At paragraph [670] they speak of a broad overall judgement being appropriate. They recognised that the proposal was contrary to some policies, but stated that these were not so central as to sway the decision. Unfortunately, the majority did not identify which provisions they considered were not central. They also said that measured weight should be given to the avoid policy.

[38] Overall, we conclude that this is an unsatisfactory approach to the analysis in respect of s 104D given the specific wording of the decision in *Environmental Defence Society Inc v The New Zealand King Salmon Co Ltd* (***King Salmon***).[8] The Supreme Court noted the need to pay particular attention to the different wording and context of provisions in a [Regional] Plan and that some words are to be given their particular meaning and 'avoid' may mean 'not allow'. The meaning is dependent on the wording and context.

[39] The tension which has continued to be addressed is what is to be avoided? Ephemeral (or minimal) and temporary effects are a matter of fact for the Court and have not been particularly troublesome in identification. On the other hand, what is an *ephemeral* or *minimal* effect has caused ongoing issues for experts.

[40] In the recent ***Port Otago***[9] case the Supreme Court imported the term *material harm* from the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 to assist with evaluating this term. For practical purposes in this case neither *avoid adverse effects* nor *avoid material harm* fully captures the issue as to whether the death of a substantial number of threatened animals can be justified by medium term gains for the species. However, with these definitions the issue of scale remains as does the time to achievement and the certainty of the outcome.

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8 *Environmental Defence Society Inc v The New Zealand King Salmon Co Ltd* (***King Salmon***) [2014] NZSC 38; [2014] 1 NZLR 593.

9 *Port Otago Ltd v Environmental Defence Society Inc* (***Port Otago***), [2022] NZSC 112.

[41] What level of loss, in the short to mid-term, is acceptable; and how certain do the long term gains need to be to satisfy us that a consent may be granted? We conclude that detailed analysis is required, together with high levels of precaution as to outcomes to avoid material harm or adverse effect.

[42] With regard to the overall merit and our broad discretion under s 104(1), the majority acknowledged that the adverse effects are more than minor, but overall considered that they are avoided, remedied or acceptably mitigated, offset or compensated. Again, given the lack of any further analysis it is difficult to understand the basis on which this finding was made.

[43] The dissenting minority position was set out particularly at paragraphs [166] – avoid means avoid, and [171] – that the cultural values, cultural landscapes, ecology effects are such that the proposal did not merit consent under s 104(1). As we will discuss in due course, the movement in the test to avoid material harm does not resolve the key concerns in this case, although it does frame them.

[44] However, the change in position of MKCT at this hearing is relevant, and influences the assessment of cultural values, cultural landscapes and even ecological effects given kaitiaki involvement in restoration works.

[45] We take into account that the first instance decision was relatively nuanced; and the Commissioners recognised the proposal is finely balanced. Accordingly, the changes that have been made to the proposal since that time are such that we cannot presume that the approach of the Commissioners is necessarily still applicable, particularly with the amended conditions and the change by MKCT to support the consent.

B. Overview of issues and our findings

[46] The issues for the proposed landfill distill to the following:

- Breach of tikanga – no consultation before site was chosen.
- Mauri, mātauranga and taonga values adversely affected.
- Contaminants from construction and operation reaching the Hōteo River and Kaipara Harbour.
- Loss of river and wetland extent.

- Loss of habitat and species.
- Inadequacy of effects management.
- Inadequacy of conditions and management plans, in particular the need for trigger levels for contingency actions. There is also a need for contingency actions for low probability but high impact events.

[47] We have concluded, on all of the evidence, that there is no direct provision in the AUP for a landfill in the Auckland Region. Its status is explicitly non-complying in the Rural Production Zone.

[48] Even with the maximum levels of avoidance, remediation and mitigation proposed there are adverse effects which are more than minor. Whether these can be satisfactorily offset or compensated lies at the heart of this case.

[49] Waste Management and the Council do not accept that the proposal is contrary to the objectives and policies of the AUP as a whole. The appellants say there are at least some objectives and policies to which the application is contrary, and viewed in the round the application is contrary to the regional and district objectives and policies. Whether the application can meet either threshold under s 104D of the Act is another issue central to this case. It is conceded that the effects are more than minor.

[50] We should note that the Court has concerns as to how this Site, in particular, was chosen for the works, and whether the Site is appropriate. This, of course, feeds into the question of avoidance of adverse effects, which we will discuss later, given the clear and recognised adverse effects on threatened species and habitats. However, as Mr Matheson submitted and we accept, the appropriateness of the site is not determinative of the consent outcome.

Overview of Court conclusions

[51] The tensions raised in this case are not new. They lie at the heart of the Act's purpose in seeking to enable use of natural and physical resources while avoiding, remedying or mitigating adverse effects. This has often been typified as a bottom line approach, however consideration in this and many other cases leads us to suggest that a more proportionate response is anticipated in terms of the Act, in that the use of the word while envisages that use and development may not necessarily be anathema to the other values protected and supported under the Act.

[52] The way in which that proportionate view is expressed is both in the wording of the various statutory and other provisions that might apply in a particular case, but also

in the ways in which overall benefits might be realised.

[53] This Court has previously criticised bottom line approaches to the wording in s 5. That cannot be the intent of the Act. We do not understand any Court to have upheld that position. The Act requires particular regard both to the ways in which the values are expressed and in designing outcomes. We reiterate this given the importance of the question of tikanga as law and the views of tangata whenua expressed very clearly in this hearing.

[54] In relation to the concept of mana whenua, this is agreed to be a relatively new concept – it may even be described as a legal construct. It is clear that the overlaying of various forms of authority, tapu, kawa and tikanga lie at the heart of the concepts of mauri and mana.

[55] As the parties were quick to tell us in this case, questions of whanaungatanga become important and bear upon how these relationships are expressed. The Hōteo River is a prime example, with all parties expressing their particular connections to it and the other parties to this hearing in relation to it and the wider area.

[56] Nevertheless, there appears to have been a common understanding of which areas were Ngāti Manuhiri, Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau. These included the area of the landfill site itself and the area to the east of it. The landfill site appears to have been recognised as being within the Ngāti Manuhiri rohe. Ngāti Whātua have clearly been established around portions of the Kaipara and for some distance up the various tributaries, including the Hōteo River.

[57] Nevertheless, the Hōteo River seems to demonstrate areas of overlapping interest both for the harvesting potential of the river itself and for the karaka trees that grew along its margins. The extent of this is in dispute and is the subject of an application to the Māori Land Court. However, Ngāti Whātua Ōrākei and Te Uri o Hau are established more broadly around the Hōteo and on the Kaipara Harbour.

[58] We do not intend to comment upon who may have exclusive authority in respect of any part of the Hōteo. What we can say is that the evidence was clear before us that, at least up to the Wayby Valley area, there was common usage by a number of parties that may have been based upon whanaungatanga and other informal – or formal – understandings between the various hapū and iwi.

[59] These relationships are also reflected in the Act in the provisions of ss 6, 7 and, of course, in s 8, and the provisions of the Treaty of Waitangi|te Tiriti o Waitangi.

[60] Accordingly, the Deeds of Settlement for the Treaty Claims are also of relevance. However, as the parties explained, although the settlements can be indicative of mana whenua, they do not in themselves establish mana whenua (i.e., they suggest but do not determine mana whenua).

[61] As the legal system struggles with these issues they are very much at the forefront of many of the RMA matters the Court has considered recently and is likely to consider within the next few years.

Summary conclusions

[62] Overall, the Court needs to consider the ways in which the various effects are experienced in planning terms and in real terms, both in scientific evidence and in mātauranga Māori. We also need to consider the effects including those on Māori relationships and their values. We must view those through the lens of the public documents – statutory, regulatory and planning – and seek to respond on a proportionate basis.

[63] In this case it is unfortunate that Waste Management did not engage with tangata whenua prior to making an application to the Overseas Investment Office (**OIO**) to purchase the Site, which application signalled the company's intention for the Site as a landfill. We see no basis for Waste Management's assertion that there were confidentiality issues or relationship issues that would have prevented such an approach. In fact, the witnesses for Waste Management for the most part conceded that, in retrospect, they should have engaged in such a way.

[64] Overall, we have found that there are clear adverse effects both on the ecology of the area in relation to Hochstetter's frogs, native bats and aquatic biota, and their habitat from the loss of stream length and to other native species (for example, lizards and invertebrates) from habitat loss.

[65] We have also found that there is a clear potential impact of sediment, leachate and other contaminants on the mauri of both the wider landfill area as a whole and in particular on the Hōteo River. We acknowledge that mauri is already depleted in this area, but Ngāti Whātua in particular are concerned that the effect on mauri might be overwhelming on the wider Kaipara catchment if there were to be a failure of the landfill engineering.

[66] We also recognise the lack of consultation and involvement with iwi and hapū that had occurred prior to this hearing commencing.

[67] Mr Matheson made a proposal in closing in relation to additional riparian enhancement and predator control in the next valley to the Landfill Valley, which we have called the Northern Valley. This proposal has resonated with the Court, and suggests an additional way to rebuild partnership relationships and whanaungatanga and increase the mauri of the land and streams in the vicinity of the landfill generally, their ecological function and the ecological function and mauri of the Hōteo River.

[68] We conclude the Effects Management Package proposed by Waste Management is generally appropriate subject to a number of changes that need to be made. Also, much of its implementation and acceptability to address issues depends on conditions that we would need to finally determine.

Conditions

[69] There was a great deal of evidence given about conditions of consent. It became very clear to the Court at an early stage that the conditions would require revisions if consent was to be granted. Lack of clarity, certainty and enforceability was a major concern to this Court, and many conditions were simply expressed in terms of leaving the details for parameters to management plans to be produced at a later time.

[70] That being the case, we are not able to finally judge whether the effects are acceptable or can be adequately addressed by management plans until at least the parameters for the conditions can be finalised. It also became clear that the wording of many conditions was a work in progress, and changes have been made throughout the hearing by various witnesses.

C. The Identification and Assessment of Potential Landfill Sites and Assessment of Alternative Methods of Waste Disposal

[71] The site selection process and the adequacy of the assessment of alternative sites was a significant issue for the appellants. The availability of alternative methods for waste disposal, to avoid having to develop a new landfill, was also an issue and we address it in our discussion of landfill capacity in Auckland (Section I).

The parties' arguments

[72] Waste Management argues that, for consent applications, the procedural requirements for alternatives are precise and only require a description of possible

alternatives, relying on *Meridian Energy Ltd v Central Otago District Council*.[10] It notes that the assessment does not have to capture every alternative, and it is not necessary to put forward the best alternative.[11] It argued that there is no jurisdiction to reconsider the alternatives assessment in the Assessment of Environmental Effects document, as the obligation is to provide a description of alternatives and that was done.

[73] In terms of the substantive assessment, Waste Management accepted that alternatives may be relevant under s 104(1)(c). It acknowledged that the assessment may be triggered where it is directed by the planning framework or where, as here, the application may have significant adverse effects.[12] Again, it said it does not have to demonstrate that the proposed landfill is the best alternative;[13] nor does every possible alternative for the landfill need to be assessed.[14]

[74] Ngāti Whātua referred us to the High Court's findings in *Tauranga Environmental Protection Society Inc v Tauranga City Council (**Tauranga Environmental Protection Society**)*[15] which applied the *King Salmon* approach to alternatives to the resource consent applications before it. The High Court stated:[16]

> The Supreme Court held that consideration of alternatives may be necessary, depending on "the nature and circumstances" of a particular application and the justifications advanced in support of it. If an applicant claims that an activity needs to occur in the coastal environment and it would adversely affect preservation of the natural character, or that a particular site has features that are especially suitable, the decision-maker ought to test those claims. That will "[a]lmost inevitably" involve consideration of alternative localities. In that case, it considered the application to consider alternative sites arose from the requirements of the NZCPS and sound decision-making, as much as from s 32 of the RMA.

[75] Ngāti Whātua[17] argued that *Meridian* has been overtaken by *King Salmon* as applied in the above case. It argued that it was both mandatory and appropriate to consider alternative sites in this case, given the planning framework, Ngāti Whātua tikanga and the factual context. We were referred to relevant provisions from the National Policy Statement for Freshwater Management 2020 (**NPS-FM 2020**) and Chapter E3 and

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[10] RMA, Schedule 4, clause 6(1)(a) and clause 6(1)(d)(ii) and s 105 in respect of discharges; *Meridian Energy Ltd v Central Otago District Council* (***Meridian***) [2011] 1 NZLR 482, at [78] (HC).

[11] *Meridian* at [148](e).

[12] *Waimea Plains Landscape and Preservation Society Inc v Gore District Council* (***Waimea***) [2022] NZEnvC 29 at [136]; and Meridian, at [65].

[13] *Meridian* at [148](e).

[14] *Transpower NZ Ltd v Rodney District Council*, A056/94, 8 July 1994, at p3.

[15] *Tauranga Environmental Protection Society Inc v Tauranga City Council* [2021] NZHC 1201, [2021] 3 NZLR 882, at [133] (***Tauranga Environmental Protection Society***).

[16] *Tauranga Environmental Protection Society*, at [133].

[17] And Te Uri o Hau and Ngāti Whātua o Ōrākei.

Chapter B6 provisions from the AUP.[18]

[76] Ngāti Whātua and others took issue with Waste Management's assessment that the proposed Site is the …*best available landfill site north of Auckland*.[19]

[77] Ngāti Whātua and others' view is that there are fundamental problems with the approach taken to site selection, in particular the absence of consideration of cultural values and effects that could only be obtained from consulting the relevant tangata whenua parties and with the absence of detailed consideration of biodiversity effects (as argued by the Director-General).

[78] Ngāti Whātua argued that the significant cultural effects and the associated breach of Ngāti Whātua tikanga was entirely predictable. Waste Management bought the Site before engagement with Ngāti Whātua. Ngāti Whātua submitted that the paper trail, including extensive Tonkin + Taylor reports and the 2016 Waste Management Board reports demonstrates this was a deliberate strategy. It referred to the Board report of June 2016, which stated:[20]

> … although closer to Auckland, there were perceived difficulties in dealing with iwi as landowners (potential risks of extended negotiations on timeline) and a wider public recreational stakeholder interest in the area.

[79] Ngāti Whātua argued that Waste Management did not follow the advice given by Tonkin + Taylor in the consultation strategy, including the extensive briefing given to Waste Management relating to the Treaty settlement framework and iwi authorities. It submitted that it was telling that most or all of the independent experts called for Waste Management agreed that this failed best practice, including Ms Juliane Chetham and Mr James Whetu who agreed that this was not how they would approach engagement with tangata whenua for an infrastructure project of this scale.[21]

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[18] Policy 7 of the NPS-FM: *The loss of river extent and values is avoided to the extent practicable*; Objective E3.2(6) of the AUP, which requires reclamation and drainage of streams and wetlands to be avoided, *unless there is no practicable alternative*; Policy E3.3(2) of the AUP which requires *avoiding where practicable… any adverse effects on lakes, rivers, streams or wetlands*; Policy E3.3(13), which directs the avoidance of the reclamation of streams and wetlands unless there is *no practicable alternative method for undertaking the activity outside… the stream or wetland*; Policy E3.3(17) and (18) of the AUP, which require loss of *natural inland wetlands* and of *river extent* to be avoided, unless, among other things, there is a *functional need for the activity in that location*.

[19] EIC, Mr Ian Kennedy, dated 11 February 2021, at [6.42], where he stated: I am pleased to say that all further investigations on the site have confirmed that the incredibly thorough site selection process that dates back to 2007 has resulted in what I am convinced from the technical perspective, is the best available landfill site north of Auckland, which can be developed and operated with minimum effect on the environment…

[20] Board Paper: Project and Update, Polaris, 21 June 2016; Appendix A Supplementary Evidence of Mr Ian Kennedy, 14 February 2023.

[21] NOE, 6-28 April 2023 at p228-229 (Ms Chetham) and p258-259 (Mr Whetu).

[80] Royal Forest and Bird submits that the Court cannot have confidence alternatives have been considered to the extent that the Court in the *Tauranga Environmental Protection Society* case stated is necessary. It submits that the High Court in *TV3 Network Services Ltd v Waikato District Council*[22] found that where matters of national importance under s 6 are engaged, an assessment of alternative locations is required. It submits that given the proposal raises s 6 issues (effects on wetland and stream habitat) alternative locations are to be considered.

[81] The Director-General asserts that Waste Management's site selection was informed only by desktop analyses of ecological matters, and having regard to the Court's decision in *Waimea,*[23] that is not enough.

[82] Waste Management accepts that it did not follow its consultants' advice for consultation. It regrets it did not consult earlier and observes that is an approach it would not repeat. It does not accept, however, that its failure to consult earlier amounts to unlawfulness or a failure to meet the standards required of an application for resource consent. It does not necessarily accept that its 'alternatives assessment' was flawed. Mr Matheson says that if the Court has concerns around the site selection process, those concerns cannot weigh against the grant of consent – given the planning framework operative at the relevant time. It says that were that so, it would be without precedent in the context of a resource consent application.

[83] Finally on this point, Mr Matheson submitted that while tikanga is accepted as a source of law in New Zealand, it cannot supplant direct and clear statutory wording. Mr Matheson notes that while not consulting mana whenua prior to site selection might not have been tikanga, s 36A of the RMA states that an applicant is not required to consult with any party including mana whenua.

[84] In assessing what was done, we summarise first the criteria Waste Management used to select a site, and then look to the process of selection.

Site selection criteria

[85] We received evidence from Ms Simonne Eldridge that the Technical Guidelines for Disposal to Land[24] are the recognised guidance document for landfills (**WasteMINZ Guidelines/Guidelines**) such as that proposed. These were first published in 2016 and were updated in 2018.

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22 *TV3 Network Services Ltd v Waikato District Council* HC Hamilton AP55/97, 12 September 1997, at p25.

23 *Waimea,* at [139].

24 Prepared by Waste Management Institute New Zealand (**WasteMINZ**).

[86] The purpose of the WasteMINZ Guidelines is to provide technical guidance relating to the siting, design, operation and monitoring of landfills in New Zealand, based on local and international experience. The Guidelines call for a balanced approach where factors are assessed against each other, and mitigation is put in place to get the best outcome.

[87] Ms Eldridge described site selection as a complex, multi-criterion and time-consuming process. It involves consideration of multiple factors such as technical, environmental, geological-hydrogeological, operational, economic, cultural, social and political. Specific weighting for the assessment criteria is not provided by the Guidelines. Ms Eldridge said that weightings are developed on a case-by-case basis with reference to the specific planning context.

[88] For class 1 landfills, the Guidelines recommend the use of a robust selection process and siting criteria to select the most appropriate landfill site to help with avoiding or reducing potential environmental and social impacts of a landfill. It specifically recommends an assessment around the following technical constraints:

(a) site stability – geothermal areas, karst areas, active faults;

(b) hydrogeology – drinking water aquifers;

(c) surface hydrology – flood plains, water supply catchments, estuaries, marshes and wetlands;

(d) environmentally sensitive areas – significant wetlands, intertidal areas, significant areas of native bush, recognised wildlife habitats, areas of sensitive fish/wildlife/aquatic resources.

[89] The Guidelines specify the identification of a number of possible localities or sites, considering geology, hydrogeology, surface hydrology, stability, topography, meteorology, location (logistics of waste transport), potential pathways for the release of contaminants and compatibility with surrounding land uses.

[90] Ms Eldridge deposed that in general terms, the approach recommended in the Centre for Advanced Engineering Guidelines and the WasteMINZ Guidelines is the approach adopted for selection of a suitable location for the landfill.

[91] Ms Eldridge said that consistent with the WasteMINZ Guidelines, the key drivers for a site to be selected as suitable for a regional landfill are a site:

(a) large enough to provide a regional facility and enable security of operation for the landfill into the future;

(b) with adequate buffer distances to neighbouring properties;

(c) that is readily accessible from the state highway network to enable safe and efficient access;

(d) which has underlying geology that is workable, stable and does not present any fatal flaws;

(e) which has terrain and topography that is not too steep, and which has adequate flat areas for ancillary facilities;

(f) which avoids known sites of significance to iwi;

(g) which has planning overlays and zones that do not show areas of archaeological or ecological significance or other significant features; and

(h) which has relatively few landowners and titling encumbrances.

[92] Ms Eldridge said that when taking these key drivers into account, quarries and valley systems are typically preferred for engineered landfills over plains, as they enable the waste volume to be maximised while minimising the Landfill Footprint and height above the surrounding area. This results in reduced excavation, improved stability and improved efficiency of containment thereby significantly reducing environmental and visual effects when compared to a landfill developed on a plain.

[93] No evidence was produced to suggest that a valley was a necessity, however that was clearly a preference for Waste Management. We were told it assists in groundwater management and minimises the potential for a leachate head to develop across the landfill, thus minimising the potential for leachate seepage. Ms Eldridge considered that good management systems would be needed, but a valley was still preferable. She acknowledged a quarry site could be used. Mr Anthony Bryce (a landfill design expert called by Waste Management), however, considered that old quarry sites present significant challenges, and in reference to Whitford landfill moving into the adjacent quarry, said *it is quite an engineering exercise*.[25] He said given a choice between a quarry and the type of site Waste Management has here, he would choose this type of landfill *every day … because it's so much more workable, so much less risky … so much easier to provide the protection you need*.[26]

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[25] NOE, 1 August 2022 at p81, lines 19-24.
[26] NOE, 1 August 2022 at p81, line 26 through to line 4 on p82.

[94] For completeness, we note that some suggested that potential effects from climate change meant that a precautionary approach would site a landfill away from hills, or in a quarry.

Site selection criteria actually used

[95] Mr Ian Kennedy set out Waste Management's preferred criteria for the landfill. The primary criterion was that it should be accessible within a corridor (ideally 2 km, and at maximum 5 km) either side of a state highway to the north or north-west of the Auckland CBD. It was recognised that the new landfill is a replacement for Redvale, and that to efficiently serve the same catchment it needed to be to the north or north-west of the CBD. This would ensure that traffic impacts associated with the new landfill remain close to existing established transport corridors and would not disturb local communities along otherwise-quiet country roads.

[96] An initial cut-off distance of 60 km from the Auckland CBD was applied, but this was later relaxed when there was further confirmation from the NZ Transport Agency/Waka Kotahi (**Waka Kotahi**) of its motorway projects from Puhoi to Warkworth, which should significantly reduce travel times north on SH1. The Wayby Valley site is approximately 70 km from Auckland CBD.

[97] Secondary constraints/criteria were then applied to the areas of potential suitable land within the 2-5 km wide corridor adjacent to the state highway. A site-ranking matrix was developed based on secondary and tertiary siting criteria to generate scores for each site. The weighting of the constraints was largely dependent on whether constraints could or could not be overcome or mitigated by obvious engineering solutions. An example was in respect of buffer availability to sensitive receivers.

[98] In addition, areas where the geology was known to have a high permeability and any sites with known active seismic faults were avoided, as both these factors were deemed to be 'fatal flaws'. Mr Kennedy spoke of learnings from Redvale and the crucial importance of a large buffer to insulate the landfill from its surrounding environment and enable it to properly manage effects.

[99] After a review of its potential sites in 2009, and commensurate with the 1 km buffer rule in the proposed Auckland Air, Land and Water Plan, a 1 km buffer to protect neighbouring properties was added to the criteria.

[100] Waste Management said that it had undertaken exhaustive examination of alternative sites since 2007. Tonkin + Taylor had been retained for this purpose at various times over these years, and the criteria for the selection of a site appears to have been set

in part by Tonkin + Taylor and in part by Waste Management.

[101] The WasteMINZ Guidelines are informative in this context as they recommend assessment around a number of key technical constraints and set out the stages of site selection and key parameters to consider.

[102] However, the criteria set out by Mr Kennedy omitted several critical criteria; including sites of significance to iwi and ecological significant areas which are very relevant to the site eventually chosen.

The site selection process and timeline

2007 - 2009

[103] The initial evaluation in 2007 produced well over 60 potential sites. In both 2007 and 2009 sites around Wayby Valley were selected, among many others to the south of SH1 and elsewhere in the area. Concerns were expressed in those reports about the use of this area given they were too far from Auckland and affected by Rodney District Council overlays that seemed to extend towards Wayby Valley and the Matariki Forests area. The Wayby Valley area was not taken forward as a result of those reports and was essentially left, like most of the other sites, unexplored.

2014-2015

[104] In 2014-2015, after a flyover, Waste Management added back into the assessment areas close to and including part of the Wayby site. For current purposes this could be regarded as including the landfill area. At that stage Tonkin + Taylor did a more formal appraisal of the area, among many others, and the Wayby area was ranked fourth (at 55%) out of eight sites.

[105] There was no recommendation to proceed further with the site. It was outside the distance from SH1 preferred by Waste Management, and there were geological and ecological constraints on the site. These were not separately evaluated. Nevertheless, the scoring system included a weighting for certain items. Cultural concerns were given no extra weighting and therefore did not influence that score. At this stage, sites considered in the Woodhill area scored considerably higher than the Wayby Valley area.

2016

[106] In early 2016 it was agreed that Tonkin + Taylor would prepare a consultation report for Waste Management. Various reports were completed by Chapman Tripp between 2014 and 2015. They set out the property issues for various preferred sites,

referencing tangata whenua interests and relevant Deeds of Settlement. Therefore, it should have been very clear to Waste Management from early 2016 that early consultation in respect of any prospective sites should be undertaken, including with tangata whenua. This Tonkin + Taylor report provided information about Deeds of Settlement involving tangata whenua in North Auckland. The report contained a programme for consultation in 2016. This included consultation with both Ngāti Manuhiri and Ngāti Whātua. At that time the preferred area remained as Woodhill, and it appeared to be anticipated that such consultation would be undertaken within the next few months.

[107] Shortly after that, a Waste Management Board report shows that there was a management preference to move to the northern sites. These are sites owned by Matariki Forests off Wayby Station Road, south of SH1 behind hills that were then in pine coverage. The reasons for that decision are opaque.

[108] Waste Management then had discussions with Waka Kotahi about its intentions for the construction of a new SH1 in this area, and it became clear that decisions as to the final alignment had not been made.

[109] Around this time (June 2016), Ngāti Whātua representative Mr Glenn Wilcox approached Waste Management and suggested discussions in relation to the Woodhill site (W5) in 2016. In August/October 2016 Tonkin + Taylor assessed the Woodhill site (W5) proposed by Mr Wilcox. It scored relatively highly, as compared with other sites, but constraints were noted including proximity to Outstanding Natural Landscape and High Natural Character overlays, Significant Ecological Areas, and hydrological/ geological suitability.

[110] In September 2016 a decision was made not to proceed with Woodhill. In explanation of this Mr Kennedy suggested that further investigation showed the site's existing and other planned uses were incompatible with the landfill. We found that explanation less than convincing, given the decision was already made to look at the northern sites.

2017

[111] Waste Management Board reports indicate that in March 2017 the Board authorised Waste Management to enter into a contract to purchase land south of SH1 from Matariki Forests. The hope was that this would lead to some action by Waka Kotahi in finalising its alignment. A little over a month later management came back to the Board to indicate that the Springhill property had come on the market and they now wished to look at purchasing that.

[112] Curiously enough, the 2014 Tonkin + Taylor report had indicated a number of potential issues with the Site, including its geology. A note on the file dated 16 March 2017 indicates that somebody had reviewed the earlier geology assessment and now considered it to be appropriate, with engineering redesign. That note is not on a Tonkin + Taylor form and its authorship is unclear. While dated 16 March 2017, it does not appear to have formed part of the Board report. Certainly, there is no evidence that Waste Management or Tonkin + Taylor gave further consideration to the earlier advice from Chapman Tripp, or its own consultation advice in relation to the selection of this site, given the known cultural values identified in earlier evaluations, and ecological issues relating to it.

[113] However, in April 2017 Tonkin + Taylor provided a report addressing the Awatere and Wayby sites. It concluded Wayby was slightly more favourable from a geotechnical perspective. Further, a report prepared by Tonkin + Taylor in May 2017 discussed various consenting requirements for access. Various Plan provisions applying to the site were recorded.

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[114] No further investigation of ecological matters was undertaken, and the Matariki Forests and Springhill Farm purchases were authorised and agreements signed in September 2017 (Springhill) and March 2018 (Matariki) and then referred to the OIO but with no information being supplied or sought from tangata whenua.

[115] The OIO issued a conditional approval that required consultation with tangata whenua as part of the process for the resource consent application. It appears that Waste Management then initiated contact with tangata whenua, and undertook onsite assessments of potential habitats and ecological values.

[116] We conclude it is no surprise that, when contacted and after learning of OIO approval, the reaction of Ngāti Whātua, Ngāti Manuhiri and the other hapū and iwi, including Te Uri o Hau, was negative. It does not appear that Waste Management was at any time prepared to discuss alternative sites but rather the terms and conditions under which consent might be granted.

[117] Nevertheless, all tangata whenua groups accept that after August 2018 consultation was undertaken appropriately. Although there were high levels of mistrust, it is clear that Ngāti Manuhiri have been able to build that trust through the hearing process and now take a different view of the application than they did initially. We record that not all of Ngāti Manuhiri support the proposal. We address that later.

[118] In August 2018, after the OIO conditional approval, Tonkin + Taylor completed a Preliminary Ecological Opportunities and Constraints Report. Its purpose was to report on the initial site walkover, identify high level ecological risks, opportunities and constraints to inform the design of the landfill and associated activities.

[119] Finally we record that, after decisions were made to negotiate the purchase of Springhill Farm and the Matariki Forests Land, Waste Management obtained a report from Tonkin + Taylor assessing the viability of developing a landfill in the Kings Quarry at Pebble Brook Road. The assessment identified a number of challenges with the site, and it was considered to be more complex than the other sites, in part due to concerns about residents on the access road and nearby.

Issues with alternative assessment

[120] We accept that, in the usual course of an application for consent for a proposal that is likely to have significant adverse effects, a description of possible alternative locations or methods for undertaking the activity is required to be provided in the assessment of environmental effects. Usually the decision-maker will not look 'behind' that description and will only focus on whether the process was adequate.

[121] When, however, the objectives and policies of a plan require that there be no practicable alternative method or location for undertaking the activity, and/or s 6 of the Act is engaged, the question is how far we must go in assessing those matters.

[122] In *King Salmon* the Supreme Court held that consideration of alternatives may be necessary depending on the *nature and circumstances* of the application and the justifications advanced in support of it.[27] While that was in the context of a plan change, the High Court in *Tauranga Environmental Protection Society*[28] applied this approach to a notice of requirement for infrastructure. Applying to the facts of that case, it found that the:[29]

> …practicability, practicality and possibility of alternatives is a material fact which directly affects the available outcome of the application. This is more than something that "may be relevant"…

[123] The High Court said that *Meridian* had been overtaken in that regard. It found that the Court is legally required to examine the alternatives to determine whether they are practicable, practical and possible with respect to the meaning of those terms in the relevant policies of a plan. It also found that the Court must satisfy itself that the alternatives are not practicable, practical and possible in order to be able to consider

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[27] *King Salmon* at [170].
[28] *Tauranga Environmental Protection Society*.
[29] *Tauranga Environmental Protection Society,* at [143].

agreeing to the proposal.

[124] We record that 'practicable' is a word: [30]

> that takes its colour from the context in which it is used. In some contexts, the focus is on what is able to be done physically; in others, the focus is more on what can reasonably be done in the particular circumstances, taking a range of factors into account

[125] It is on that basis, therefore, that we assess the analysis of alternatives, when we come to make our overall assessment of the proposal and whether it achieves the objectives and policies of the AUP. As preliminary points, we observe:

- Consultation with tangata whenua would have better informed the alternatives assessment. Although Waste Management had information from various reports obtained relevant to the area of its values to tangata whenua, there is no evidence that this or the importance of the Hōteo River and Kaipara Harbour were recognised.

- While there are various documents that could assist with information, for example Treaty claims and settlements and planning documents, it is difficult to dismiss the value of consultation.

- Although s 36A does not require consultation, it must be read in the context of Part 2 of the Act and particularly s 6(e) and s 8. If the only way to adequately address the cultural effects of a proposal is to talk to those who are affected, it is not enough to stand behind s 36A.

- We had no evidence as to other alternative sites from the appellants, but note there was no obligation on them to identify an alternative.

- There were a number of assessments of alternative sites over a decade, but changes in criteria (for example, extension of the distance from central Auckland) or reasons for adding or deleting areas are not documented. Similarly, the abandonment of the Woodhill Area and W5 for the northern sites was not documented or explained adequately.

- Final decisions on site selection appeared to have been made relatively quickly, and included a site that, while previously assessed, had not scored highly compared with others.

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[30] *Tauranga Environmental Protection Society*, at [144] referring to *Wellington International Airport Ltd v New Zealand Airline Pilots' Association Industrial Union of Works Inc* [2017] NZSC 199 at [65].

- The final assessment supporting the final decision was sparse, but Waste Management did have the benefit of earlier assessments which included that general land area. The updated geological comment is not dated or on letterhead, and we do not know if it was contemporaneous.

- The ecological analyses were done on a desk-top basis, with site walkovers and further investigation only occurring after decisions were made to purchase the sites. There was recognition of some ecological issues, but the catchment issues for the Hōteo River and Kaipara Harbour and their ecological issues were not addressed.

- Certain objectives and policies in the AUP, which require there be an analysis of alternatives for some activities, did not exist at the time the company was assessing site options for its next landfill.

[126] Overall, we conclude that there was a lack of proper analysis of this Site given its late reintroduction to the selection process. There was a failure to consider the relevant portions of the Chapman Tripp reports and attached documents, including the Ngāti Manuhiri Deed of Settlement. We also conclude that the earlier issues relating to ecological and geological concerns were not clearly addressed.

[127] Although we accept these issues were not determinative of selection, they do not satisfy us that the Wayby site's ranking had changed as it still had potential constraints identified in earlier reports and reflected in its lower ranking. There is no evidence that this was the best site available.

[128] Rather, we are satisfied that this site was chosen because it became available within the general area of preference of the Waste Management Board. Why the Board preferred this area remains a matter of speculation.

D. Assessment Framework

[129] Sections 104 and 104D of the RMA contain the fundamental criteria to which we should have regard in assessing this proposal.

Section 104

[130] When considering an application, we must, subject to Part 2 of the Act, have regard to a number of matters. They are:

(a) any actual and potential effects on the environment of allowing the activity; and

(ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and

(b) any relevant provisions of a national environmental standard, regulations, a national policy statement, a New Zealand coastal policy statement, a regional or proposed regional policy statement, a plan or proposed plan; and

(c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.

Section 104D

[131] Section 104D is often described as containing the threshold tests for non-complying activities. In other words it contains two tests, one of which must be satisfied before consent can be given to a non-complying activity.

[132] In summary, s 104D(1) states that a resource consent can be granted for a non-complying activity only if the consent authority is satisfied that either;

(a) the adverse effects of the activity on the environment will be minor; or

(b) the application is for an activity that will not be contrary to the objectives and policies of a relevant plan in respect of the activity.

[133] Section 104D(1)(b) relates to regional and district plans. Plan has the meaning given in s 43AA, being a regional plan or a district plan.

[134] The initial issue arises as to whether this includes the regional provisions which are included within the AUP. The AUP contains regional policy statement provisions, regional plan provisions and district plan provisions. What is agreed by all parties is that the s 104D(1)(b) assessment cannot include regional policy statements or other documents such as national policy statements.

[135] For reasons which follow we will address first the relevant s 104 matters, and having assessed the evidence on those matters then consider if either of the tests in s 104D is passed.

[136] Most planners have dealt with this as an entry test. Dr Philip Mitchell, called for Waste Management, in particular criticised Ms Burnette O'Connor, the planner called for Fight the Tip, for approaching it as an exit threshold. There is a strong line of authority

that s 104D can either be an entry or an exit threshold.[31]

[137] The issue that arises is whether we need to undertake the threshold assessment prior to undertaking the substantive merits assessment under s 104. There appeared to be agreement at the conclusion of the case that although both requirements need to be considered there was no particular order required in terms of the statute.

Section 104B

[138] Under this section, after considering an application for a non-complying activity, consent may be granted or refused and conditions imposed under s 108. The Court has a very broad discretion based on s 104 and Part 2 of the Act.

Sections 105 and 107

[139] These sections apply to applications for discharge permits, and contain various matters to which we must have regard or about which we must be satisfied. They include the nature of the discharge and possible alternative methods of discharge (s 105(1). Section 107 imposes restrictions on the grant of certain discharge permits.

The Court's approach to analysis

[140] Because of the significant crossover between effects and the various policies and objectives of the AUP, it is not possible to assess whether an activity is contrary to an objective or policy without considering the question of effects, and the potential for avoidance, remedy, mitigation and also offset and compensation in some cases. This makes the approach to assessment particularly difficult, and we have concluded that the following approach should be adopted:

(a) firstly, we examine the various documents listed in s 104(1)(b), including any other documents that might be relevant (this meets part of s 104(1)(c)). From this we intend to generate findings that we consider to be key points which need to be addressed when considering the application in due course. These also feed into the question of effects;

(b) we then analyse the various effects in this matter under s 104(1)(a). This may also include documents that we consider relevant under s 104(1)(c), if any. Given the significant amount of evidence, and the huge number of accompanying documents it is not possible to go through each effect and the proposals for their reduction. We have focussed on those areas where there remain effects, and the

[31] See for example *Foster v Rodney District Council* [2010] NZRMA 159 at [14] (EnvC).

steps and the adequacy of those steps to address the concerns. The effects include positive effects to offset or compensate for adverse effects under s 104(1)(ab);

(c) having then identified the key effects, without addressing s 104(1)(ab) we then move to consider the threshold test under s 104D. This will use the findings in relation to the provisions and those in relation to the effects under s 104(1)(a) to address the question of whether the application is contrary to the objectives and policies. We note that, in doing so, these are flavoured by the reference on many occasions to avoidance, remedying or mitigating;

(d) if the application passes either of the threshold tests under s 104D we must reach a conclusion under s 104(1). Full assessment is required against all of the matters in s 104, including documents not directly relevant to s 104D, such as regional and national policy statements, all AUP provisions, other Acts and other matters such as offset and compensation under s 104(1)(ab);

(e) by its nature, the decision must be interim given the complexity of this matter. It is clear that significant changes need to be made to the conditions, management plans, and even to the proposal if the application is to receive consent. We have a discretion to determine if a consent could be granted if the concerns outlined in this interim decision are met. The intention is to clarify if that is possible, and if so how.

E. Approach to relevant documents

[141] A significant number of both statutory and non-statutory documents bear upon consideration of the proposal. Some are directly relevant under s 104(1), such as national policy statements, regional policy statements or the provisions of the regional and district plans. Because of the issues that arise under s 104D of the Act relating to the objectives and policies of the AUP, we have concluded that we should deal first with the issues under the policy statements, then under the AUP. We deal with the matters in the following order:

- National policy statements;
- National environmental standards;
- Regional policy statement (**RPS**)- AUP; and

- AUP regional and district plans.

[142] A significant number of further documents and legislation are relevant under s 104(1)(c) (other matters), and these include the Wildlife Act 1953, the Waste Minimisation Act 2008 (**WMA 2008**), Waste Minimisation Plans prepared under that Act by the Auckland Council, and WasteMINZ Guidelines and the Kaipara Moana Remediation project **(KMR).**

[143] It was largely agreed that the following planning documents are relevant to our consideration of this matter:

(a) National Policy Statement for Freshwater Management 2020 (**NPS-FM 2020**) and the National Policy Statement for Freshwater Management 2020 (February 2023 version) (**NPS-FM 2023**);

(b) National Policy Statement for Indigenous Biodiversity 2023 (**NPS-IB 2023**);

(c) National Policy Statement for Renewable Electricity Generation 2011 (**NPS-Renewable Electricity**);

(d) New Zealand Coastal Policy Statement 2010 (**NZCPS**);

(e) National Environment Standards for Air Quality (**NES-Air Quality**);

(f) National Environmental Standards for Plantation Forestry (**NES-Plantation Forestry**) now amended by National Environmental Standards for Commercial Forestry which took effect on 3 November 2023;

(g) the AUP comprising the RPS, Regional Plan and District Plan.

[144] In this regard we note that the regional plan and district plan objectives and policies are relevant to the threshold test under s 104D, but all provisions are relevant to an assessment under s 104(1).

[145] The planners agreed that the rules set out under the National Environmental Standards for Freshwater do not apply to the proposal given that the Standards post-date notification of the application. Waste Management submitted that the NES remains a relevant matter to which regard must be had under s 104(1)(b) because it contains the standards that Matariki Forests will have to follow when felling the pines on the Waste Management landholdings.

F. Planning documents

NPS-FM 2014, NPS-FM 2020 and NPS-FM 2023

[146] A National Policy Statement for Freshwater Management was first introduced in 2011. It has since been amended four times: in 2014, 2017, 2020 and in February 2023.

[147] The NPS-FM 2020 came into effect on 3 September 2020, after the consent application and plan change were notified.

Fundamental concept – Te Mana o te Wai

[148] Te Mana o te Wai was first introduced as a concept in 2014. In 2017, an objective and policy requiring that it be considered and recognised in the management of freshwater was added (the policy was directed at regional council policy and plan making).[32] The fundamental concept of Te Mana o te Wai in the NPS-FM 2020 is as follows:[33]

> Concept
>
> (1) Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and well-being of the wider environment. It protects the mauri of the wai. Te Mana o te Wai is about restoring and preserving the balance between the water, the wider environment, and the community.
>
> (2) Te Mana o te Wai is relevant to all freshwater management and not just to the specific aspects of freshwater management referred to in this National Policy Statement.

[149] The concept is supported by six principles.[34]

[150] The single Objective of the NPS-FM 2020[35] is:

> … to ensure that natural and physical resources are managed in a way that prioritises:
>
> (a) first, the health and well-being of water bodies and freshwater ecosystems
>
> (b) second, the health needs of people (such as drinking water)
>
> (c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.

[151] A suite of policies follow the Objective. We received submissions about Policy (2) (tangata whenua involvement in freshwater management and decision-making) and the proposal's consistency with Te Mana o te Wai and its core principles, Policy (1), Policy (6) (no further loss of extent of natural inland wetlands), Policy (7) (loss of river extent is

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32 NPS-FM 2014 (updated August 2017), Objective AA1 and Policy AA1.
33 NPS-FM 2020, clause 1.3.
34 Clause 1.3(4).
35 Clause 2.1.

avoided to the extent practicable) and Policy (9) (habitats of freshwater species are protected).

Finding A

[152] The NPS-FM 2020 and as amended in 2023 seek to restore and preserve the balance between the water, the wider environment and the community. Te Mana o te Wai is all about restoring and preserving that balance. It seeks first to protect and then to restore the mauri of waters.

[153] The NPS-FM 2020 required that specific policies be included in regional plans:

- 3.22(i) – extent of natural inland wetlands;
- 3.24 – extent of rivers; and
- 3.26 –fish passage.[36]

[154] These specific policies are then deemed to become policies within the AUP as part of the Regional Plan. They are therefore policies to which we will need to refer in due course under s 104D. They are therefore relevant to both our s 104 and s 104D assessments.

Finding B

[155] The weight to be attached to the above provisions as included in the AUP – extent of inland wetlands, extent of rivers and fish passage, is in dispute and needs to be resolved.

Analysis of NPS-FM 2020

[156] The two NPS-FM 2020 inland wetland and river policies referred to above were directly imported into the AUP in December 2020 and after the Council hearing on Waste Management's applications. Policy (17) is directed at avoiding the loss of extent of natural inland wetlands, protecting their values and promoting their restoration subject to certain exceptions, which include that there be a functional need for the activity. Policy (18) – rivers, states that the loss of river extent and values is to be avoided unless there is a functional need for the activity in that location, among others.

[157] Waste Management submitted it responded meaningfully to substantive changes in the regulatory environment by way of design refinements as they have occurred, a fact acknowledged by Mr Carlyon[37] in questioning. The Court notes Waste Management's

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[36] Included in AUP as Policies E3.3(17), (18) and Objective E3.2(7).
[37] Planning witness for Te Rūnanga o Ngāti Whātua.

actions from 2020 – including redesign undertaken to avoid freshwater habitats, renewed efforts for engagement and partnership with tangata whenua and other considerations of cultural values. We accept these actions must be read within the context of an already lodged application, and any directive policies of the NPS-FM should be appropriately weighted within that context.

[158] Waste Management argued that questions in cross-examination have suggested there is nothing new in the most recent iteration of the NPS-FM and the key concepts have been known about for a long time and should not come as a surprise. The Director-General and others submit that the policies and previous iterations demonstrate that submission is incorrect. Waste Management says that there was no policy direction in the 2014 or 2017 versions of the NPS-FM directing wholesale avoidance of wetlands and rivers, and no policy direction of any kind on reclamation. It submitted that Objective (A2) from NPS-FM 2014 was focussed on outstanding water bodies and significant values of wetlands.

[159] Mr Matheson further argued that:

(a) Policy A4, the only policy in respect of consenting of discharges which addressed water quality, did not utilise a functional or even operational needs assessment but referred to *the extent to which it is feasible and dependable that any more than minor adverse effects [on health or freshwater ecosystems] would be avoided.*

(b) the AUP policies in place from November 2016[38] relied on similarly lower bars compared to functional need, referring to functional and operational need or adverse effects avoided as far as practicable within overlay areas.[39]

(c) the Infrastructure chapter contained similar provisions for overlay areas. The project has been designed to avoid all effects on those scheduled areas.

[160] We accept that the NPS-FM 2014 and NPS-FM 2017 did not direct the wholesale avoidance of wetlands and rivers or address reclamation. We also accept that Te Mana o Te Wai was not as prominent in previous versions of the NPS-FM as it is now.

[161] We accept that the AUP, from 2016, excepted infrastructure having a functional or operational need to be in a certain location, from certain of its requirements. It did, however, contain provisions directed at structures, depositions and reclamation of

[38] Operative in Part, 15 November 2016.
[39] He referred to 'sensitive areas', but we were unable to locate a reference for this.

water bodies.[40]

[162] There is a long-standing authority, *Ireland v Auckland City Council*,[41] which states that there is a general duty to determine an appeal in the light of the circumstances prevailing at the date an appeal is heard. The High Court found that if taking into account a change in the law or circumstances since the date of the decision appealed against would prejudice existing rights of a party, the Court could be justified in departing from the general rule. It ruled that in that case the appellant had obtained only contingent rights when the original Council approval was given because that decision was always subject to a right of appeal, which was exercised.

[163] This is not a case where the NPS-FM 2020 or the RMA provide transitional savings for applications in train.

[164] We are sympathetic to the position of Waste Management, which finds itself buffeted by the winds of legislative change, but find that the new policies must be considered along with all the other objectives and policies that apply to this proposal. Having said that, the new policies came into effect just before the Council's hearing commenced.

[165] We conclude that some pragmatism and proportionality need to be applied to such changes of circumstances. Changes to legislation, and as a result policy frameworks, are occurring with some frequency. It is indeed unfair and unrealistic to determine a proposal solely against policies that did not exist when the proposal was first notified. We accept that Waste Management has endeavoured to respond to that changed framework with various design changes to its proposal.

Finding C

[166] The changed legislative environment is part of the context in which we must assess the AUP's objectives and policies. However, it informs rather than dictates the outcome of the assessment under s104D(1)(b) looking at objectives and policies of the AUP. These changes are also relevant to any substantive assessment under s 104(1)(b)(iii).

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[40] Our global term for lakes, rivers, streams and wetlands referred to in the various objectives and policies.

[41] *Ireland v Auckland City Council* (1981) 8 NZTPA 96 (HC).

NPS-Indigenous Biodiversity 2023

[167] The NPS-IB 2023 came into force on 4 August 2023, several months after the end of the appeal hearing. It contains, for indigenous biodiversity, precepts similar to those in the NPS-FM 2023 which applies to aquatic biodiversity. It requires that there be maintenance and at least no overall reduction in the size of populations of indigenous species, their occupancy across their natural range, the functions, properties and full range and extent of ecosystems and habitats they use or occupy, connectivity and buffering around such ecosystems, and their resilience and adaptability. In achieving this through the kaitiakitanga of tangata whenua and the stewardship of people and communities it also provides for the social, economic and cultural wellbeing of people and communities.

[168] It treats the management of Significant Natural Areas identified by territorial authorities differently from land that has not been formally identified in a plan (though it may have significant biodiversity values). Certain adverse effects must be *avoided* in an Significant Natural Area, with exceptions made for new development where it is specified infrastructure that provides significant national or regional benefit, or where there is a functional or operational need for a development to be in a particular location and there are no practicable alternative locations for it. In that case, the construction or upgrade must be managed by applying the effects management hierarchy. Areas of significant biodiversity value that are not identified as such in a plan must also be managed by applying the effects management hierarchy.

[169] In relation to ecological assessment and the effects hierarchy, appendices to the NPS-IB 2023 set out, separately, the principles for biodiversity offsets and for biodiversity compensation that can be applied to projects where the steps to avoid, remedy or minimise adverse effects have been sequentially exhausted. These appear to be similar to those promulgated in the NPS-FM 2023 and also in an appendix to the AUP. They appear to have been applied in a general sense in ecological assessment in recent years and the earlier guidelines have been referenced in the ecological assessments made for the project.

NPS-Renewable Electricity

[170] This is relevant to the proposed use of landfill gas for energy. It was not an issue.

New Zealand Coastal Policy Statement (NZCPS)

[171] There was a dispute between the planners as to whether we need to consider the provisions of the NZCPS. Those who argue that we do not say that it has been given effect to by the AUP, and the proposal is not in the coastal environment. Others

considered that, although the proposal is not located in the coastal environment, there are downstream effects on that environment.

[172] We received evidence on potential effects of the landfill on the coastal environment and agree with Dr Mitchell that those effects are addressed through the relevant objectives and policies in the AUP, for example those contained in Chapters E1 and E11.

Finding D

[173] The various issues raised in the NZCPS are subsumed within the AUP.

National Environmental Standards

NES-Air Quality

[174] These standards control discharges of a number of combustion-derived contaminants as well as discharges to air from landfills having a capacity of >1 million tonnes, as the proposed facility does.

[175] Landfills with more than 200,000 tonnes of waste and a design capacity of >1 million tonnes are to collect landfill gas and either flare it or use it as a fuel to produce energy. The project includes the collection of landfill gas and its conversion to energy supplied to the national grid. We accept the evidence of Ms Jenny Simpson for Waste Management that the facility will meet the requirements of these standards.

NES-Plantation Forestry

[176] The purpose of these standards is to maintain or improve the environmental outcomes associated with plantation forestry activities. They apply to any forestry of at least 1 ha that has been planted for commercial harvesting.

[177] We were advised that the harvesting of forestry on the site would be undertaken separately by the forestry operators – Matariki Forests – and does not form part of the Application.

[178] We were advised that the National Environmental Standards for Freshwater are expressly subject to these standards, meaning that any forestry harvesting operation that may affect streams can continue to occur provided that it complies with the NES-Plantation Forestry. During deliberation of this decision another NES for forestry became operative, the NES for Commercial Forestry.

[179] Given that it was Waste Management's case that Matariki Forests, not it, would fell the pine trees on its landholdings, we were not assisted further with regard to either standard.

[180] It would be fair to say this position was contested by some appellants. Given the waterways and the presence of threatened species, the permitted standards and/or the Wildlife Act may be an issue for forestry clearance. However, we had no evidence on the issues and it is not part of the Application.

Auckland Unitary Plan Operative in Part

Definitions

[181] We summarise relevant definitions for terms used in the AUP, which includes the RPS and the Regional and District Plan.

[182] Landfill is defined as *a facility where household, commercial, municipal, industrial and hazardous, or industrial waste is accepted for disposal*.

[183] Infrastructure is defined with reference to the definition in s 2 of the Act but adds *municipal landfills*. Municipal landfills are not defined in the AUP.[42]

[184] Waste Management described its proposed facility as the Auckland Regional Landfill. We address that description later in this decision.

[185] The terms *functional need* and *operational need* are referred to in various AUP provisions. Functional need is defined as *the need for a proposal or activity to traverse, locate or operate in a particular environment because it can only occur in that environment*. Operational need is similarly defined except the basis for need is described as *because of technical or operational characteristics*.

[186] We accept that the proposed landfill falls within the definition of landfill and infrastructure in the AUP. A question arises as to the applicability of Chapter E26 – Infrastructure to the proposal, and we address that later in this section.

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[42] The RMA defines industrial or trade premises as: (b) any premises used for the storage, transfer, treatment, or disposal of waste materials or for other waste-management purposes, or used for composting organic materials…

Regional Policy Statement

[187] The RPS is part of the AUP and was promulgated contemporaneously. It is demarcated in the AUP largely by separate chapters starting with **B.** As we noted earlier, the policy provisions inform the exercise of our discretion under s 104(1) but are not relevant to the threshold test under s 104D(1)(b).

[188] Our attention was drawn to RPS Chapters:

- B2 Tāhuhu whakaruruhau ā teone – Urban growth and form;
- B3 Ngā pūnaha hanganga, kawekawe me ngā pūngao – Infrastructure, Transport and Energy;
- B4 Te tiaki taonga tuku iho – Natural heritage;
- B6 Mana whenua;
- B7 Toitū te whenua, toitū te taiao – Natural resources;
- B9 Toitū te tuawhenua – Rural environment; and
- B10 Ngā tūpono ki te taiao – Environmental risk.

Chapters B2 Tāhuhu whakaruruhau ā teone – Urban growth and form and B3 Ngā pūnaha hanganga, kawekawe me ngā pūngao – Infrastructure, Transport and Energy

[189] Chapters B2 and B3 emphasise better use of existing infrastructure and efficient provision of new infrastructure.[43] Infrastructure shall be resilient, efficient and effective. The benefits of infrastructure are recognised through, among others, providing essential services for the functioning of communities and providing for public health, safety and wellbeing.[44] The development and operation of infrastructure is enabled while managing adverse effects.[45]

[190] The RPS also requires that the functional and operational needs of infrastructure are recognised, and that the adverse effects of that infrastructure are avoided, remedied or mitigated.[46]

[191] The policies accompanying the objectives for Chapter B3 – Infrastructure are focussed on enablement and providing for the locational requirements of infrastructure

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[43] B2.2. Tāhuhu whakaruruhau ā teone – Urban growth and form.
[44] B3.2.1 Objectives (1), (2)(a) and (d).
[45] B3.2.1 Objectives (3).
[46] B3.2.1 Objectives (4) and (8).

to recognise that it can have *a functional or operational need to be located in areas with natural and physical resources that have been scheduled … in relation to natural heritage, mana whenua, natural resources, coastal environment … and special character.*[47]

Finding E

[192] The need for new infrastructure is recognised in the AUP where:

(a) there is a functional and operational need for it to be located in particular areas with natural and physical resources that have been identified in the AUP that otherwise preclude development; and

(b) its operation should be enabled while managing adverse effects.

Chapter B4 Te tiaki taonga tuku iho

[193] Chapter B4 relates in part to outstanding natural features and landscapes, and has as an objective the protection of those areas from inappropriate subdivision, use and development. It also requires that the ancestral relationships of mana whenua and their culture and traditions with the landscapes and natural features of Auckland are recognised and provided for.[48]

Chapter B6 – Mana whenua

[194] Chapter B6 was the subject of much discussion in the hearing. Part of the Issues Statement encapsulates the reasons for the provisions which follow in the chapter:[49]

> Development and expansion of Auckland has negatively affected Mana Whenua taonga and the customary rights and practices of mana whenua within their ancestral rohe. Mana Whenua participation in resource management decision-making and the integration of mātauranga māori and tikanga into resource management are of **paramount importance** to ensure a sustainable future for mana whenua and for Auckland as a whole.
>
> [emphasis added]

[195] The words *paramount importance* are an indication of centrality to the provisions. Unfortunately, this wording is not repeated in the objectives and policies that follow however it does give a flavour to those provisions.

[196] Objective B6.2 provides for recognition of Treaty of Waitangi | te Tiriti o Waitangi partnerships and participation and the objectives and policies are in part directed at providing opportunities for mana whenua to actively participate in sustainable

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47 B3.2.2 Policy (3).
48 B4.2.1 Objectives (1) and (2).
49 B6.1. Issues.

management of natural and physical resources. Certain policies call for *timely, effective and meaningful engagement with mana whenua at appropriate stages in the resource management process…*[50]

[197] The RPS also recognises mana whenua as specialists in the tikanga of their hapū or iwi and as being best placed to convey their relationship with their ancestral lands, water, sites, wāhi tapu and other taonga.[51] The policies directed at providing opportunities for mana whenua also require that participation is such that it recognises and provides for mātauranga and tikanga.[52]

[198] The RPS calls for mana whenua values, mātauranga and tikanga to be properly reflected and accorded sufficient weight in resource management decision-making.[53] The objectives require that the mauri of, and relationship of mana whenua with, natural and physical resources are enhanced overall.[54]

[199] The RPS seeks integration of mana whenua values, mātauranga and tikanga and the management of natural and physical resources within the ancestral rohe of mana whenua and in the development of innovative solutions to remedy the long-term adverse effects on historical, cultural and spiritual values from discharges to freshwater and coastal water, and in resource management processes and decisions relating to freshwater.[55] Policies also look to provide opportunities for mana whenua to be involved in the integrated management of resources so as to recognise the holistic nature of the mana whenua worldview, among others.[56]

[200] Of particular relevance Policy B.6.3.2(6) states:

> (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 activities, including mahinga kai;
>
> (e) sites and areas with significant spiritual or cultural heritage values to mana whenua; and
>
> (f) any protected customary right in accordance with the marine and coastal area (Takutai Moana Act 2011).

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50 B6.2.2(1)(c).
51 B6.2.2(1)(e).
52 B6.2.2(1)(g).
53 B6.3.1 Objectives (1).
54 B6.3.1 Objectives (2).
55 B6.3.2 Policies (2)(a), (c) and (d).
56 B6.3.2 Policies (4).

[201] The chapter contains further references to supporting Māori economic, social and cultural development (Policy B6.4) and the protection of mana whenua cultural heritage (Policy B6.5).

Chapter B7 Toitū te whenua, toitū te taiao – Natural resources

[202] This chapter seeks to protect areas of identified significant indigenous biodiversity value from the adverse effects of development.[57] A further objective is to maintain indigenous biodiversity through its protection, restoration and enhancement in areas where ecological values are degraded.[58] Degraded freshwater systems are to be enhanced, and the loss of freshwater systems minimised.

[203] There is a focus on avoiding, remedying or mitigating the adverse effects of changes in land use on freshwater.[59] Policies aim to control the use of land and discharges to minimise adverse effects of runoff and to avoid development where it will significantly increase adverse effects on freshwater systems, unless those effects can be adequately mitigated.[60]

[204] There is a detailed policy at B7.3.2(4) directed at avoiding the permanent loss and significant modification or diversion of rivers and streams (excluding ephemeral streams), and wetlands and their margins, unless: it is necessary to provide for infrastructure (among others), no practicable alternative exists, mitigation measures are implemented to address the adverse effects, where adverse effects cannot be adequately mitigated, environmental benefits including onsite or offsite works are provided.[61]

[205] Development is to be managed (which includes discharges and activities in the beds of rivers and streams and wetlands) to protect identified Management Areas; minimise erosion and modification; limit the establishment of structures within the beds of the waterways to those that have a functional need or operational requirement to be located there, and maintain or where appropriate enhance: freshwater systems not protected as Management Areas, navigation along rivers and public access, existing riparian vegetation located on the margins of rivers, streams and wetlands, and areas of significant indigenous biodiversity.[62]

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57 B7.2.1 Objectives (1).
58 B7.2.1 Objectives (2).
59 B7.3.1 Objectives (1)-(3).
60 B7.3.2 Policies (1)(c)-(d).
61 B7.3.2 Policies (4).
62 B7.3.2 Policies (5).

[206] There are further policies regarding the use and allocation of freshwater among others, and managing effects of discharges, including sediment runoff and stormwater management. Finally, there is a policy to restore and enhance freshwater systems where practicable when development occurs.[63]

Finding F

[207] There is a centrality of Māori worldview contained within the RPS. This seeks to maintain, and where appropriate enhance, freshwater systems, mauri of areas and the relationship of tangata whenua with important features. It does not preclude development but anticipates that adverse effects will be addressed and freshwater systems are restored and enhanced where that is possible.

Other RPS Chapters

[208] There are other RPS provisions relating to air, the rural environment and environmental risk. We have considered those provisions but do not summarise them.

Regional And District Plan provisions

[209] The Regional and District Plan provisions are contained in the same document as the RPS. Almost all of these provisions are inter-related to some degree beyond those marked RPS only. The regional and district provisions are normally identified by a delineation in brackets in relation to the provisions, RP (for regional plan) or DP (for district plan) or RPS (for regional policy statements). The distinction between whether a particular objective, policy or other provision is a regional or district one relies on this indication.

[210] As is clear when we move through the various chapters, water quality, lakes, rivers, streams and wetlands, land disturbance, vegetation management, biodiversity, engage both regional and district issues and there is clear ground for overlap between the two. This is highlighted when we come to discuss the provisions of E13.

[211] The proposal needs numerous resource consents as it engages many aspects addressed by the planning framework. Of particular relevance to the proposal are Chapters E1 – Water quality and integrated management, E3 – Lakes, rivers, streams and wetlands, E11 – Land disturbance – regional, E12 – Land disturbance – district, E13 – Cleanfills, managed fills and landfills, E15 – Vegetation management and biodiversity, E26 – Infrastructure, E14 – Air quality and H19 – Rural zones. There are other chapters

[63] B7.3.2 Policies (6).

to which we have had regard but for present purposes we see no need to summarise those provisions.[64]

[212] While there are numerous objectives and policies that apply to this proposal, our primary focus was on those that addressed effects on rivers, streams and wetlands and ecological values relating to native flora and fauna, and Māori relationship values which embrace all those elements. These objectives and policies are not only relevant to the exercise of our discretion under s 104(1) and Part 2, but also to the threshold test under s 104D(1)(b).

Chapter E1 – Water quality and integrated management

[213] The introduction to this chapter refers to the objective of the AUP and national policy statements being to improve the integrated management of freshwater and the use and development of land. The focus of the provisions is on avoiding adverse effects as far as practicable and otherwise minimising them. It records a key concern of mana whenua is effects on the mauri of water caused by pollution of streams, rivers, catchments or harbours.

Objectives and policies

[214] The objectives require that freshwater and sediment quality is maintained where it is excellent or good and progressively improved over time in degraded areas.[65] Further, the mauri of freshwater is maintained or progressively improved over time, to enable traditional and cultural use of this resource by mana whenua.[66] There are policies directed at freshwater quality and ecosystem health interim guidelines[67] and a particular directive policy that requires freshwater systems to be enhanced unless existing intensive land use and development has irreversibly modified them such that it practicably precludes enhancement.[68]

[215] The NPS-FM 2014 required that Policies E1.3(4) to (7) be included in the AUP. Those policies contain, at (4) and (5) matters to be considered on an application for discharge, with Policy (6) making it clear that the previous policies apply to new discharges or a change or increase of any discharge of a contaminant into freshwater or onto or into land in circumstances which may result in that contaminant entering freshwater.

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[64] Chapter D4 – Natural stream management area overlay, D8 – Wetland management areas overlay, D9 – Significant ecological areas overlay, E31 – Hazardous substances, E33 – industrial and trade activities, E36 – natural hazards and flooding.

[65] E1.2 Objective (1).

[66] E1.2 Objective (2).

[67] E1.3 Policies (1) – (2)

[68] E1.3 Policy (3).

[216] There are detailed policies[69] regarding stormwater and others directed at wastewater and other discharges.

Finding G

[217] The objectives and policies reinforce the importance of freshwater and sediment quality being either maintained at an excellent level or improved over time. The AUP also identifies issues from the RPS relating to the mauri of freshwater being maintained or progressively improved over time. This is reinforced by the NPS-FM 2023.

Chapter E3 – Lakes, rivers, streams and wetlands

[218] Chapter E3 – Objectives and Policies are identified as regional plan provisions. The objectives firstly identify protection from degradation (3.2(1)) and restore, maintain or enhance (3.2(2)). An objective then identifies that 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 RMA. The appellants identified that this is a positive requirement, intended (one assumes) to achieve above objectives 1 and 2. The introduction to this chapter speaks first of the importance of management of water bodies to protect natural and ecological and biodiversity values, among others. It also states:

> There is a balance to be struck between the need to provide for the ongoing growth of urban Auckland, including the requirements of infrastructure, and the protection, maintenance and enhancement of lakes, rivers, streams and wetlands. It is important that development occurs in a sustainable manner which should involve, where practicable, the retention and enhancement of lakes, rivers, streams and wetlands.
>
> The Plan identifies a number of areas where the natural values of lakes, rivers, streams and wetlands are higher than elsewhere. These areas are especially vulnerable to the adverse effects of inappropriate subdivision, use and development and require a greater level of protection. These areas are identified in the following overlays:
>
> - D4 Natural Stream Management Areas Overlay;
>
> …
>
> - D8 Wetland Management Areas Overlay; and
> - D9 Significant Ecological Areas Overlay
>
> This Plan requires that permanent loss is minimised and significant modification or diversion of lakes, rivers, streams and wetlands are avoided. Where adverse effects cannot be avoided, remedied or mitigated, it may be appropriate that the residual adverse effects be offset by providing environmental benefits either onsite or offsite. In some circumstances the existing natural values of a lake, river, stream or wetland are so high that offsetting will be inappropriate…

[69] E3.2 Policies (8) – (16).

Objectives

[219] As might be expected, Chapter E3 places value on those lakes, rivers, streams or wetlands (water bodies) containing high natural values, and aims to protect them from degradation and permanent loss. There is also an emphasis on restoration, maintenance and enhancement. Significant residual adverse effects that cannot be avoided, remedied or mitigated are to be offset.[70]

[220] Structures are permitted where there are functional or operational needs for them. Activities are managed to minimise adverse effects. Reclamation and drainage is avoided, unless there is no practicable alternative.[71] The NPS-FM 2020 added an objective for fish passage, requiring that the passage of fish is maintained or is improved.[72]

[221] Parties brought particular attention to 3.2(6) which states reclamation and drainage of any lake river or stream/wetland is avoided unless there is no practicable alternative. Clearly, they identified this as applying to the Landfill Footprint area, which reclaims a significant length of stream as defined in the AUP. Although there is clear reference back to the need to maintain stream and wetland areas, there is also recognition of the potential for restoration and enhancement.

[222] Reference on several occasions was made to the effects management hierarchy, including compensation or offset, which indicates that alternative methods to achieving the above results may be considered in terms of the policies in general terms. The issue is then whether the qualifications, in this case, otherwise negate the avoidance provisions.

Policies

[223] There is a general policy directed at avoiding significant effects on various overlay Management Areas, which does not apply to this proposal.[73] For the area outside the overlays, the policy is to avoid where practicable or otherwise remedy or mitigate any adverse effects on water bodies, and where appropriate restore and enhance the water body.[74]

[224] Policy 3.3(3) seeks to enable the enhancement, maintenance and restoration of water bodies. Policy 3.3(4) seeks that *restoration and enhancement actions, which may form part of an offsetting proposal should…*:[75]

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70 E3.2 Objectives (1), (2) and (3).
71 E3.2 Objectives (4), (5) and (6).
72 E3.2 Objectives (7). NPS-FM 2020, clause 3.26(i).
73 E3.3 Policies (1).
74 E3.3 Policies (2)(a).
75 E3.3 Policies (4).

> (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…[76]

[225] Policy 3.3(5) requires:

> 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.

[226] Royal Forest and Bird submits that Policy (5) is specific and directive. It submits that the absolute loss of stream habitat and freshwater species that do not survive salvage efforts (including mahinga kai species) contravene this policy. It notes that the policy does not extend to offsetting and compensating the loss of mauri or mana whenua values.

[227] Royal Forest and Bird submits that the proposed stream reclamation will result in direct loss of inanga, smelt, other whitebait species such as banded kōkopu, long and shortfinned tuna (eels), kōura and kākahi. It submits that the loss of macroinvertebrates resulting from stream reclamation is a residual adverse effect left unaddressed by Waste Management.

[228] Waste Management submitted that MKCT have confirmed this policy is achieved in terms of any onsite effects, and from their perspective the Hōteo awa, whereas in respect of the Hōteo awa the Ngāti Whātua parties and Te Uri o Hau say it is not.

[229] We conclude that the project may not be fully consistent with this policy, but mauri could be enhanced if the overall outcomes in relation to the freshwater resources of significance are beneficial.

[230] Given that the effects of the proposal as a whole are said by tangata whenua to impact the mauri of the environment, we return to this policy later. The effect on mauri and consistency with the policy turns on our conclusions as to the outcome of the grant of consent (excluding offset or compensation).

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[76] Note 1 attaching to this Policy requires that two documents should be referred to: *Auckland Council Technical Report 2011/009: Stream Ecological Values (SEV)*…; and *Guidance on Good Practice Biodiversity Offsetting in New Zealand … 2014* …

[231] Policy 3.3(6) relates to the management of adverse effects on mana whenua cultural heritage that is identified during development. Policy 3.3(7) provides for structures in, on, under or over any water body and the associated diversion of surface water, provided it complies with certain criteria – including that there is no practicable alternative method or location for undertaking the activity inside the bed of the water body.[77]

[232] Policy 3.3(9) provides for the disturbance and depositing of any substance, among others, in, on or under the bed of a water body, but requires that there is no practicable alternative method or location for undertaking the activity outside the water body and that, among other purposes, it is for the operation, use, maintenance, repair, development or upgrade of infrastructure. Any disturbance is to avoid significant adverse effects and avoid, remedy or mitigate other adverse effects on mana whenua values associated with freshwater resources, including wāhi tapu, wāhi taonga and mahinga kai.[78]

[233] Policies 3.3(10) – (12) contain general encouragement to provide plants that are native to the area, and encourage the incorporation of mana whenua mātauranga, values and tikanga in any planting in, on or under the bed of a lake, river, stream or wetland.[79]

[234] There is a directive policy, 3.3(13) relating to reclamation and drainage that requires:

> (13) Avoid the reclamation and drainage of the bed of lakes, rivers, streams and wetlands, … 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…
>
> (ii) for the operation, use, maintenance, repair, development or upgrade of infrastructure; or
>
> … 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.

[235] Two policies, 3.3(15) and (16), direct the protection of the riparian margins so as to safeguard habitats, aesthetic landscape and natural character values, contribution to

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[77] Chapter E3.3 Policies (6)-(8),
[78] Chapter E3.3 Policies (9)(a), (b)(ii) and (c).
[79] Chapter E3.3 Policies (10)-(12).

biodiversity, avoid or mitigate the effects of flooding, among others.[80]

[236] The NPS-FM 2020 required that two new policies (3.3(17) and (18)) relating to natural inland wetlands and rivers be added to the AUP.[81] The first policy focusses on the avoidance of the loss of extent of natural inland wetlands, the protection of their values, and the promotion of their restoration.[82] Some exceptions are provided for. The second relates to avoiding the loss of river extent and values and is also subject to exceptions.[83]

[237] Prior to the NPS-FM 2023, one of the exceptions to the loss of wetlands or river extent related to specified infrastructure. The regional council had to be satisfied that the loss of wetlands or river extent is necessary for the construction of the specified infrastructure; it will provide significant natural or regional benefits; there is a functional need for it in that location; and its effects are managed through applying the effects management hierarchy. Specified infrastructure is defined to include *(b) regionally significant infrastructure identified as such in a regional policy statement or plan*.

[238] The NPS-FM 2023 now provides for landfills in its list of exceptions to loss of wetlands. The relevant provision states:[84]

> The loss of extent of natural inland wetlands is avoided, their values are protected, and their restoration is promoted, except where:
>
> …
>
> (f) the Regional Council is satisfied that:
>
> (i) the activity is necessary for the purpose of constructing and operating a new or existing landfill or cleanfill area; and
>
> (ii) the landfill or cleanfill area:
>
> - will provide significant national or regional benefits; or
> - is required to support urban development as referred to in paragraph (c); or
> - is required to support the extraction of aggregates as referred to in paragraph (d); or
> - is required to support the extraction of minerals as referred to in paragraph (e); and
>
> (iii) there is either no practicable alternative location in the region, or every other practicable alternative location in the region would have equal or greater adverse effects on a natural inland wetland; and

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80 Chapter E3.3 Policies (15)-(16).
81 NPS-FM 2020 3.22(1) and 3.24(1).
82 Chapter E3.3 Policy (17).
83 Chapter E3.3 Policy (18).
84 Chapter E3.3 Policy (17)

(iv) the effects of the activity will be managed through applying the effects management hierarchy.

[239] It was generally agreed among the parties that, in light of that amendment, there is no need to consider whether the proposal constitutes specified infrastructure as defined in the NPS-FM 2020. Leaving that agreement to one side, we note some difficulties with the amendment insofar as its requirement for alternatives to be satisfied is so expansive as to be impossible to meet (f)(iii). We note the Director-General's concession on this point, noting that as there are no fundamental matters of disagreement between experts, it will not argue that there are any issues on this point. Therefore, while there is a clear exception for landfills in this amendment, we will not consider whether the proposal is specified infrastructure under the NPS-FM 2020.

[240] Finally, in this Chapter Policy 3.3(18) requires:[85]

> The loss of river extent and values is avoided, unless the Council is satisfied:
>
> (a) that there is a functional need for the activity in that location; and
>
> (b) the effects of the activity are managed by applying the effects management hierarchy.

[241] The term effects management hierarchy is defined in the NPS-FM 2020 in relation to natural inland wetlands and rivers to mean *an approach to managing the adverse effects of an activity on the extent or values of the wetland or river (including cumulative adverse effects and loss of potential value)*. It sets out a cascade of management tools that must be applied, starting with the requirement that adverse effects are avoided where practicable, through to minimisation, remedying, aquatic offsetting, and finally determining that if aquatic compensation is not appropriate, the activity itself is avoided. The terms aquatic compensation and aquatic offset are defined and we address those matters when we come to our assessment of the ecological effects of the proposal.

Evaluation of E3

[242] A key issue in relation to Chapter E3 related to whether or not bottom lines are required in 3.2 Objectives, and in particular in 3.2(3) and 3.2(6). While the language of control differs, and while enabling certain activities, there is a focus on avoiding significant adverse effects on the mauri of, and mana whenua values in relation to, the freshwater environment.

[243] While the appellants argued that certain provisions set clear environmental bottom

[85] NPS-FM 2020 February 2023 made minor amendments to Policy (18) that are of no moment for the purposes of this decision. The NPS-FM 2020 defines *functional need* in the same way as the AUP.

lines, they accepted that some were qualified by listed exceptions. Save for the policy addressing mauri, we conclude these provisions do not set environmental bottom lines precisely because they are qualified, and seek to enable activities while controlling effects.

[244] However, the objectives and policies in Chapter E3 are prescriptive, and set out in some detail the ambit of exceptions to their requirements or conditions applying to authorised activities.

[245] The objectives focus on protection of high natural value water bodies; restoration, maintenance or enhancement of all water bodies; management of significant residual adverse effects; provide for structures when there are operational or functional needs; activities are managed to minimise adverse effects; reclamation is avoided unless there is no practicable alternative; and fish passage is maintained.

[246] General policies speak of managing effects by *avoiding where practicable or otherwise remedying or mitigating adverse effects*; and enabling enhancement and restoration, among others.

[247] Specific policies provide for most activities subject to compliance with listed matters, which include:

- no practicable alternative method or location for undertaking the activity outside the water body;
- it is for infrastructure; and
- it avoids significant adverse effects on mana whenua values associated with fresh water.

[248] Reclamation and drainage is to be avoided unless certain exceptions apply, including that:

- There is no practicable alternative method, and
- It is for infrastructure.

[249] The objective which speaks of *operational or functional need* for structures is not carried through to the relevant policy, which makes no mention of either. It is possible, we think, to read *no practicable or alternative method or location* alongside those qualifiers.

[250] Significant adverse effects on the mauri of the freshwater environment and mana whenua values are to be avoided.

Objective (7) – fish passage

[251] Royal Forest and Bird noted that Objective 7 is directive and only allows fish passage to be obstructed where desired fish species are to be protected from some fish species, for example pest species. It noted that two stream channels to be altered by construction of the landfill access road may be too steep to re-establish effective fish passage through the culverts. It says the Court cannot be satisfied Objective 7 has been met.

[252] We acknowledge that there are two instances where fish passage may be restricted, but accept Ms Justine Quinn's evidence (freshwater ecology) for Waste Management that the limited amount and quality of upstream habitat is such that there will be a minimal impact. We conclude that, because a number of existing barriers will be removed, overall there will be an improvement of fish passage access to the wider Western Block (at least 10 km) and Waitaraire Stream (20 km) catchments and therefore benefits to native freshwater fauna.

Policy E3.3(13) – reclamation and drainage

[253] Policy E3.3(13) requires that the reclamation of streams be avoided unless, among others, there is *no practicable alternative method* and the activity avoids significant adverse effects (and avoids, remedies or mitigates others) on mana whenua values associated with the freshwater resources.

[254] Royal Forest and Bird submits that alternative methods includes alternative technologies and alternative landfill scales. It points to Waste Management's acknowledgement that there can be smaller facilities, for example Puke Coal, which was consented for an 8 million m^3 facility.

[255] For mana whenua values, Royal Forest and Bird notes the policy does not extend to offsets or compensation for the loss of these values. In any event, it notes that the losses of stream habitat and mahinga kai are not adequately avoided, remedied or mitigated.

Policy E3.3(17) – loss of inland wetlands

[256] Policy (17) – added by NPS-FM 2020 – requires that loss of wetlands is avoided. One exception related to specified infrastructure. The exceptions were amended by the NPS-FM 2023, which now includes a consenting pathway for new landfills in natural inland wetlands provided that the consenting authority is satisfied of certain matters; that there is either no practicable alternative location in the region, or every other practical

alternative location would have equal or greater effects on a wetland; and the effects of the activity will be managed through applying the effects management hierarchy.

[257] Royal Forest and Bird submits the proposal is contrary to various policies. It adopts the Director-General's closing on alternatives and site selection, highlighting that there is no updated weighting matrix assessing ecological values of alternative sites after the Springhill site was purchased, and that the evidence illustrates an approach whereby ecological issues would be *engineered* away. It submitted that Dr Matthew Baber (terrestrial and wetland ecological matters expert for Waste Management) was only instructed to look at constraints within the proposed site.

[258] Royal Forest and Bird submits the Court cannot have confidence that alternatives have been considered to the extent that the Court in *Tauranga Environmental Protection Society* stated is necessary. It also submits that where matters of national importance under s 6 are engaged, an assessment of alternative locations is required. It submits that given the proposal raises s 6 issues (effects on wetland and stream habitat) alternative locations are to be considered.

[259] While the application might not advance particular policies, it is difficult to draw the conclusion that it is contrary to the objectives and policies of the AUP as a whole. If adverse effects from the discharges were not avoided, or we were not satisfied that there would be a net gain to biodiversity on the site in relation to rivers and wetlands, then it appears to us that the policies and objectives and other provisions guide us to a refusal of consent. The matter is finely balanced.

[260] We accept the application does not meet or advance this policy. The Policy seeks to avoid the loss of natural wetland. Here the loss is addressed, in part, by the improvement of other wetlands of significant value. We must view these outcomes holistically.

Policy E3.3(18) – rivers

[261] Policy (18) directs that loss of river extent and values is avoided unless there is a functional need for the activity and the effects are managed by applying the effects management hierarchy. Royal Forest and Bird contends that the proposal does not fall within either exception. We have already described the weight we should attach to these policies, given the timing of the addition of Policy (18).

[262] We conclude that Policies (13) and (18) canvass the same issue. They are not entirely consistent, given that Policy (13) excepts infrastructure if there is no practicable alternative method while Policy (18) requires there be a functional need for the activity in that location and that effects are managed by applying the effects management hierarchy (of the NPS-FM).

[263] When considering s 104D this is one policy among others. The assessment cannot require the application to meet every policy. In most cases a non-complying activity is likely to offend one or more objectives and policies in the AUP. It may be directly contrary to some. It may also meet others or achieve them in full.

[264] However, it is not individual policies or objectives against which the application and its effects are judged, but the AUP as a whole. That is, has this application *set its face* against the thrust of a Plan, including core values?

Finding H

[265] Chapter E3 recognises the tension between development and the objectives to preserve quality environments and improve those that are degraded. There is still an emphasis on avoidance, remediation or mitigation, although the NPS-FM 2020 (see Policies (17) and (18)) recognises the application of an effects management hierarchy.

[266] We conclude that the introduction of Policies 3.3(17) and 3.3(18) introduce avoidance in the context of the other provisions. The overall effects under s 104D and s 104 are matters we will discuss in due course.

Chapters E11 (Land Disturbance – Regional) and E12 (Land Disturbance – District)

[267] The backgrounds to these chapters recognise that land disturbance is an essential prerequisite for development and use of land. They seek to manage adverse effects through best practice land management techniques while recognising that it is not possible to prevent all sediment entering water bodies.

[268] The provisions relating to land disturbance require that it be managed to, among other things, maintain the cultural and spiritual values of mana whenua in terms of land and water quality, preservation of wāhi tapu and kaimoana gathering.[86] Policies are also directed at enabling land disturbance necessary for a range of activities undertaken to provide for people and communities.[87]

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[86] Chapter E11.3 Policy (2)(d).
[87] Chapter E11.3 Policy (4).

[269] Sediment discharges are to be minimised to the extent practicable having regard to the quality of the environment, with any significant adverse effects to be avoided, [other] adverse effects to be avoided as far as practicable, and the receiving environment's ability to assimilate the discharged sediment to be taken into account.[88]

[270] Chapter E12 objectives and policies are similar to those for the regional plan land disturbance provisions.

Chapter E13 – Cleanfills, managed fills and landfills

[271] The background to the chapter notes that filling activities support the use of land and the disposal of fill and waste generated by residential, commercial, industrial and rural activities in Auckland.

[272] There was a dispute as to the extent to which the objectives and policies referred to landfills generally or only to the discharges from them. The argument advanced by the appellants in particular is that they consider that E13 applies to avoiding all adverse effects from new landfills based upon policy E13.3(4).

[273] While the objectives and policies do not refer to discharges, discharges are the sole focus of the Activity Table. The policies at Chapter E13.3 read as follows:

> (1) Avoid significant adverse effects and remedy or mitigate other adverse effects of … landfills on lakes, rivers, streams, wetlands, groundwater and the coastal marine area.
>
> (2) … land instability.
>
> (3) … relevant industry best practice
>
> (4) Avoid adverse effects from new landfills.
>
> (5) Manage … landfills (including the closure of) to:
>
> (a) Protect the integrity of the site including the containment of contaminants; and
>
> (b) Require aftercare that is appropriate to the nature and requirements of the site, including the type of material that was deposited during its operative period.

Scope of provision

[274] There is nothing in the background to the chapter at E13.1 that limits the way in which the objectives and policies are to be read.

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[88] Chapter E11.3 Policies (7)(a)-(c).

[275] E13.4 Activity Table states that the Activity Table specifies the activity status of discharges from cleanfills, managed fills and landfills pursuant to s 15 of the Act. It is clear that the Activity Table deals with discharges. This demonstrates, in our view, quite clearly that the Activity Table does not cover the full extent of matters addressed within the objectives and policies. We conclude there is nothing exceptional about this.

[276] Waste Management says that E13 is directed at managing the discharges of contaminants to land in circumstances where they might enter water (s 15(1)(b) RMA) in the context of three specific activities: cleanfills; managed fills; and landfills. It notes that other rules in the Auckland-wide section of the AUP address the effects of other discharges in s 15, including discharges of water to water (stormwater) (s 15(1)(a) RMA and AUP E8), discharges from an industrial or trade activity or process to air (s 15(1)(c) RMA and AUP E14) and discharges from an industrial or trade activity or process to land (AUP E33 and s 15(1)(d) of the RMA).

[277] The Council argued in closing submissions that Chapter A of the AUP is relevant to the interpretation of Chapter E13. Part A1.3 relates to the structure of the AUP. It explains that each chapter generally provides the objectives and policies, and in the case of regional and district plans, the rules for a particular resource management matter. Counsel argued that, taking Chapter A into account, the policies need to be read in the context of the chapter within which they sit.

[278] That is consistent with case law – while it is appropriate to seek the plain meaning from a provision, it is not appropriate to undertake that exercise in a vacuum.[89] Regard must be had to the immediate context, and where any obscurity or ambiguity arises it may be necessary to refer to the other sections of the AUP.

[279] E13 is in the Natural Resources section of the Auckland-wide chapter of the AUP. It sits among provisions that control all manner of effects on natural resources. We conclude it is not appropriate to treat it as an island in a sea of other controls. It is not self-contained, and does not control all effects generated by cleanfills, managed fills and landfills. Other sections in Chapter E and elsewhere also must be taken into account and they need to be read as a whole.

[280] The policy provisions need to be read in the context of the chapter within which they are contained. Objective E13.2(1) refers to cleanfills, managed fills and landfills, ensuring that they are sited, designed and operated so that adverse effects on the environment are avoided, remedied or mitigated. The objective for landfills is given effect

[89] *Powell v Dunedin City Council* [2004] 3 NZLR 721, at [35] (CA).

to by two policies – policy (1) and policy (4) which are set out above.

[281] It is of note that the AUP also controls, in other sections, effects from activities more generally. The reference to land stability (in Policy 2) to us addresses discharges, and if seen in that way is consistent with discharges of contaminants.

[282] Having regard to that context we conclude that Policies (1) and (4) are limited in their application to activities which discharge contaminants, that is to be read to include land stability and soil slips, etc. This might include contaminants generally as there is no clear limitation. So, while it includes leachates and other emerging contaminants, it cannot go as far as all effects, for example noise and ecological effects. Again, a pragmatic and proportionate interpretation is required.

[283] In this regard we take the meaning of avoid, with reference to *Port Otago*, to mean avoid material harm. In interpreting these words in a practical sense for this Site, we see the objectives and policies requiring that no more than acceptable levels of contaminants become water-borne beyond the Landfill Footprint and the treatment systems, and do not reach the boundary of the property or the Hōteo rIVER.

[284] From this we conclude that in relation to external effects, namely from discharges that can occur from construction, stormwater, sediment and other contaminants, the avoidance of discharges cannot mean there is no sediment at all in water. As discussed earlier, E11 contemplates some level of discharge but in the parlance of *Port Otago, material harm* must be avoided.

[285] E13 is focussed on discharges from the activity on the land. It is therefore not focussed on the Landfill Footprint itself, except to the extent that that could lead to discharges beyond the footprint. In other words it is concerned with all forms of physical contaminant that could reach land and in particular water. To that extent, roads and their potential to generate sediment or contaminants to nearby streams and land not part of the property, and leachate to contaminate ground and surface water, are clearly in the frame.

Finding I

[286] E13 is directed to avoiding contaminants from the landfill activity reaching land or water, including groundwater, beyond the Site. This includes those which can either be borne in water, that is, leachates, sediments, etc, or are caused by the activities themselves which then leads to the discharge, such as the construction of roads or dams. The requirement to avoid adverse effects in itself identifies that this is not a prohibition against new landfills, but a requirement as to the internalisation of adverse effects. This

is not a total prohibition of any adverse effects but those that create material harm. Again, this calls for pragmatic proportionate interpretation.

Chapter E15 – Vegetation management and biodiversity

[287] The background to this chapter states that the objectives and policies apply to the management of terrestrial and coastal vegetation and biodiversity values outside of scheduled Significant Ecological Areas.

Objectives

[288] Given the impact of the proposal on rivers and streams (by their removal) and indigenous biodiversity values, Chapter E15 is also relevant. The objectives are directed at ensuring that ecosystem services and indigenous biological diversity values, particularly in sensitive environments, are maintained and enhanced while providing for appropriate subdivision, use and development. Where ecological values are degraded, or where development is occurring, indigenous biodiversity is restored and enhanced.

Policies

[289] Policy (1) requires the protection of areas of contiguous indigenous vegetation cover and vegetation in sensitive environments, including the coastal environment, riparian margins, wetlands and environments prone to natural hazards.

[290] Policy (2) requires that the effects of activities are to be managed 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 biodiversity and ecosystem services.

[291] Policy (3) encourages 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 matters in Policy (4) and Appendix 8 Biodiversity offsetting.

[292] Policy (5) enables activities that enhance the ecological integrity and functioning of areas of vegetation, including for biosecurity, safety and pest management. Vegetation management is enabled to provide for the operation and routine maintenance needs of activities (Policy (6)).

Finding J

[293] The policies require protection of indigenous vegetation in sensitive environments and the management of activities to avoid significant adverse effects on biodiversity where practicable. There is a clear directive to the use of the effects management hierarchy to manage effects that cannot be avoided, remedied or mitigated, including encouragement of the use of offsetting.

Chapter E26 – Infrastructure

[294] E26 clearly relates to infrastructure and there is no dispute between the parties that this activity constitutes infrastructure. The question is whether municipal landfills are included in E26, or if it is more constrained to what might be called network utilities defined in the AUP.

[295] Given the AUP's inclusion of *municipal landfills* in its definition of infrastructure, Waste Management argued that Chapter E26 applies to the proposal. Certain parties argued against its relevance, maintaining that as the heading preceding the objectives and policies and the Activity Table itself do not contain any reference to municipal landfills, it is logical that the objectives and policies that precede the Activity Table also do not relate to them.

[296] The Commissioners at first instance were unanimous that E26 does not apply.[90]

[297] We are guided by a plain and ordinary meaning of the words, and note that the objectives and policies are not limited to the activities listed in the Activity Table. Adopting the same contextual approach we adopted for the objectives and policies in Chapter E13, we consider how the AUP and Chapter E26 provides for infrastructure.

[298] The introduction to the chapter notes that infrastructure is critical to the social, economic and cultural wellbeing of people and communities and the quality of the environment. It states that the chapter provides a framework for development, operation, use, maintenance, repair, upgrading and removal of infrastructure. It notes that infrastructure is provided for on the basis of Auckland-wide provisions, but that additional infrastructure provisions in, for example, zones, are also provided throughout the AUP and should be referred to. A table sets out the overlay and Auckland-wide provisions that are included in the chapter. It does not include landfills.

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[90] This finding was not subject to any appeal. At best, it is part of the General Appeals seeking refusal of consent.

Objectives

[299] The objectives and policies of the chapter are set out under the heading 'Network Utilities and Electricity Generation – All Zones and Roads'. On the face of it, the provisions which follow may be limited by reference to the words in the heading. However, save for some specific sub-headings, many of the objectives and policies refer in general terms to infrastructure – without qualification.

[300] The objectives recognise the benefits and value of investment in infrastructure.[91] They enable the development of infrastructure and safe, efficient and secure infrastructure.[92] Objectives require that the adverse effects of infrastructure are avoided, remedied or mitigated.[93]

Policies

[301] Policy (1) recognises the social, economic, cultural and environmental benefits that infrastructure provides.[94] Policy (2) further provides for the development of infrastructure by recognising functional and operational needs, location, route and design needs and constraints, the benefits of infrastructure to communities within Auckland and beyond.[95]

[302] We accept that Waste Management is not a network utility operator. Eligible infrastructure seems to rely on s 8 of the Infrastructure Funding and Financing Act 2020. Given that this is not regionally significant infrastructure, nor is that term defined in the AUP, it is difficult to find support for a view that E26 was intended to cover landfills as well as network utilities. We are reluctant to substitute our determination for that of the Commissioners. It is clear from the appeals filed that this aspect of the decision was supported by the appellants, and they also supported the minority decision.

[303] Our view is that landfills are likely to be covered by E26, however we are reluctant to rely strongly on this provision, given the Commissioners' decision and the lack of a direct appeal point on it. Even if it was taken into account fully, it is clearly subject to the general requirement that infrastructure must avoid, remedy or mitigate its effects.

[304] The submission that there was not scope for us to revisit that decision is at least arguable. We do not consider the finding on this point critical to a determination of this

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91 E26.2.1 Objectives (1) and (2).
92 E26.2.1 Objectives (3) and (4).
93 E26.2.1 Objective (9).
94 E26.2.2 Policy (1)
95 E26.2.2 Policy (2).

case.

Chapter E33 – Industrial and trade activity

[305] The Background to this chapter addresses the need to appropriately manage industrial and trade activities including managing environmentally hazardous substances.

[306] It was accepted that the proposed landfill falls within the definition of industrial and trade activities involving the use, handling and storage of environmentally hazardous substances as part of its production and operation. The objectives and policies are directed at managing the activities to avoid adverse effects on land and water from environmentally hazardous substances and the discharge of contaminants, or to minimise adverse effects where it is not reasonably practicable to avoid them.[96]

Chapter H19 – Rural zones

[307] The site is located in the Rural-Rural Production Zone. The relevant Activity Table provides that landfills are a non-complying activity in all the Rural Zones.

[308] The Zone Description states that the purpose is to provide for the use and development of the land for rural production and rural industries and services while maintaining rural character and amenity values.

[309] The general Rural objectives and policies are focussed on the land resource and rural production activities. A range of rural production activities is enabled, together with a limited range of other activities in the rural areas including the development of infrastructure. Objectives and policies focussed on rural character, amenity and biodiversity values aim to maintain or enhance those values. The effects of rural activities are to be managed to achieve the character, scale, intensity and location that is in keeping with rural character, amenity and biodiversity values including by recognising certain characteristics, including *(c) a general absence of infrastructure which is of an urban type and scale*.[97]

[310] Opportunities are enabled to protect existing Significant Ecological Areas or provide opportunities to enhance or restore areas to meet criteria for Significant Ecological Areas.[98] Objectives addressing, among others, non-residential activities, require that industries, services and non-residential activities of an urban type and scale unrelated to rural production activities are not located in Rural zones.[99] Non-residential

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[96] E33.2 Objective (1) and Policies that follow.
[97] H19.2.4 Policies (1)(c).
[98] H19.2.4 Policies (3).
[99] H19.2.5 Objectives (4).

activities are to be managed to contain and manage adverse effects on site, and avoid, remedy or mitigate adverse effects on traffic movement and the road network.[100]

[311] There is a reference to cleanfills and managed fills where they can assist the rehabilitation of quarries. The objectives and policies relating to the Rural Production zone include providing for forestry activities, including the planting and management of new and existing forests, and planting of indigenous species and amenity exotic species for long-term production purposes and the eventual harvesting of these species.[101]

Chapter E14 – Air quality

[312] The Description for this chapter states that the provisions relate to the management of air quality and the separation of incompatible land uses.

Objectives

[313] The objectives include protecting human health and the environment from significant adverse effects from the discharge of contaminants to air, ensuring that incompatible use and development are separated. However the operational requirements of industry and infrastructure, for example, are recognised and provided for.[102]

Policies

[314] There is a specific suite of policies relating to management of discharges, including in certain rural zones. Among others, there is a requirement for adequate separation between use and development that discharges dust and odour and activities that are sensitive to those adverse effects.[103]

[315] There is a general policy that requires that the discharge of contaminants to air from industrial activities in Rural Zones be avoided, except where the activity is location-specific for infrastructure requiring large separation distances that cannot be provided for within the urban area.[104] There are other requirements to adopt the best practicable option for emission control, effects of air quality beyond the boundary of premises where the discharge is occurring, among others.[105]

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[100] H19.2.6 Policies (2)(b) and (c).
[101] H19.3.3 Policies (2)(a) and (c).
[102] E14.2 Objectives (2), (3) and (4).
[103] E14.3 Policies (3).
[104] E14.3 Policies (6)(a) and (c).
[105] E14.3 Policies (8) and (9).

Activity status of air discharges

[316] Discharge to air from landfills is a discretionary activity.[106] One of the requirements is that the landfill operation must be able to maintain a minimum separation distance of 1 km between the Landfill Footprint and the nearest dwelling located in the urban area and zoned for residential activities.[107] We note that the proposal does not comply with the other standards, which are time-specific as to the disposal of waste and relate back to 2010. Waste Management has proposed a separation distance of 1 km between its Landfill Footprint and surrounding residences that accords with the requirement.

Commentary on AUP Objectives and Policies

[317] In relation to those that relate to biodiversity, the AUP provides a range of alternatives. The question for the Court is whether we can see anything in this wording that seeks to derogate from the requirements of s 6 in general, and in particular the requirement under s 6(c) – the protection of areas of significant vegetation and significant habitats of indigenous fauna and 6(e) – the relationship of Māori and their cultural and traditions with ancestral lands, water, sites, wāhi tapu and other taonga.

[318] While the AUP indicates that there may be alternative methods to achieve those outcomes, we understand that for the objectives to be met, the activities must avoid adverse effects beyond the site in relation to contaminants and discharges, including from construction or operation, those being discharges to land or to water.

[319] In relation to the streams, rivers, wetlands, they should be protected as well as the habitats of indigenous species.

[320] Protection has a broader application within the AUP, but the intent is to achieve at least maintenance and preferably enhancement. We will describe this later in the decision as the 'net gain' objective in relation to biodiversity and two issues arise in respect of that. The first issue is as to how outcomes are measured, and the second is the length of time to achieve the outcome and the certainty that it will be achieved either during or by the end of the term of consent.

[321] As we will discuss in due course, these are not simple issues in the context of this case, involving as it does a significant impact on threatened species, and very low

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[106] See Table E14.4.1, Activity Table.

[107] See Activity Table (A159) and (A160) – note that landfills that do not comply with restricted discretionary activity standards are non-complying. The activity that requires minimum separation distance is located at E14.6.4.1, however the proposed landfill does not comply with the requirements of this rule and therefore must be considered as non-complying.

probability risks of discharge but nevertheless extremely high consequences if this occurs.

[322] It is also to be noted that as the hearing progressed, the experts' areas of disagreement narrowed. There were significant improvements in the proposals put to the Court and the recognition by experts that further work will need to be done if consent is otherwise appropriate. We also mention that the design at this stage is a concept design only for the landfill, and significantly greater certainty would be needed in respect of design outcomes if we were to be satisfied that the landfill could minimise discharges of all forms of contaminant to land or water beyond the site to the extent it has described.

G. Other relevant legislation

Statutory framework for managing waste

National and Auckland waste policy direction

[323] During the hearing issues arose in relation to the provisions of the Auckland Waste Management and Minimisation Plan 2018 (**Waste Minimisation Plan**), prepared under the WMA 2008 and the Low Carbon Auckland Action Plan 2014 (**Low Carbon Plan**). On various aspects of these issues Waste Management, Auckland Council, Ngāti Whātua Ōrākei and Fight the Tip called evidence.

Framework prior to the Waste Minimisation Act 2008

[324] Under the Local Government Act 1974 (**LGA 1974**) territorial authorities were allowed to either collect and dispose of waste or contract for those services.[108] The Local Government Act 2002 (**LGA 2002**) included a specific requirement for territorial authorities to assess *sanitary services* within their districts.[109] Sanitary services were defined by reference to the definition of *sanitary works* in the Health Act 1956. That definition referred to *works for collection and disposal of refuse, night soil, and other offensive matter.*[110]

[325] The LGA 1974 required that every territorial authority adopt a waste management plan, which was required to make provision for the collection and reduction, reuse, recycling, recovery, treatment, or disposal of waste in the district. It also had to provide for its effective and efficient implementation, among other matters.[111] Further, every

[108] Part 31 Waste management, ss 540, 541 and others.
[109] Part 7, subpart 1 LGA 2002.
[110] Section 25(1)(c) Health Act 1956.
[111] Section 539(1) and (2) of the LGA 1974. The definition of *waste management plan* was … *plan developed … in the following order of priority, of the following methods (which methods are listed in order of their importance): (a) reduction; (b) reuse; (c) recycling; (d) recovery; (e) treatment; (f) disposal.* (s 537 LGA 1974).

territorial authority was required to promote effective and efficient waste management within its district, having regard to the environmental and economic costs and benefits for the district; and ensuring that the management of waste does not cause a nuisance or become injurious to health.[112]

[326] Again, under LGA 1974 a territorial authority could undertake or contract for the efficient and effective management of waste, including the provision of waste disposal facilities within or beyond the district.[113] Where a waste management plan was in force, the territorial authority had to exercise its powers relating to waste management in accordance with the AUP.[114]

[327] As at 2008, therefore, the responsibility for assessing and providing waste collection and disposal services was provided for through a combination of provisions in the LGA 1974 and LGA 2002.

Framework after 2008

[328] The advent of the WMA 2008 removed waste collection and disposal from both Local Government Acts by deleting the reference to waste disposal and the definition of *sanitary services* in the LGA 2002, deleting s 128 of the LGA 2002 (which was the process for making an assessment of water and sanitary services), and repealing Part 31 (waste management) of the LGA 1974.

[329] The purpose of the WMA 2008 is to encourage waste minimisation and a decrease in waste disposal in order to protect the environment from harm and provide environmental, social, economic and cultural benefits.[115]

[330] A territorial authority is required to promote effective and efficient waste management and minimisation within its district.[116] Waste management and minimisation is defined to mean *waste minimisation and treatment and disposal of waste*. For those purposes, a territorial authority must adopt a waste management and minimisation plan. That plan must provide for objectives and policies for achieving effective and efficient waste management and minimisation within the district, including:[117]

> (i) collection, recovery, recycling, treatment, and disposal services for the district to meet its current and future waste management and minimisation needs (whether provided by the territorial authority or otherwise); and

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[112] Section 538 LGA 1974.
[113] Section 540(1)(d) LGA 1974.
[114] Sections 540(2) and 541(3) LGA 1974.
[115] Section 3 WMA 2008.
[116] Section 42 WMA 2008.
[117] Section 43(2)(b) WMA 2008.

(ii) any waste management and minimisation facilities provided, or to be provided, by the territorial authority; and

(iii) any waste management and minimisation activities, including any educational or public awareness activities, provided, or to be provided, by the territorial authority.

[331] In preparing a plan, a territorial authority must:[118]

(a) consider the following methods of waste management and minimisation (which are listed in descending order of importance):

(i) reduction;

(ii) reuse;

(iii) recycling;

(iv) recovery;

(v) treatment;

(vi) disposal; and

(b) ensure that the collection, transport and disposal of waste does not, or is not likely to, cause a nuisance; and

(c) have regard to the New Zealand Waste Strategy, or any government policy on waste management and minimisation that replaces the strategy; and

(d) have regard to the most recent assessment undertaken by the territorial authority under s 51; and

(e) use the special consultative procedure …

[332] The waste assessment to which a Council must have regard must contain a number of elements. They are: description of the collection, recycling, recovery, treatment and disposal services provided within the territorial authority's district; a forecast of future demand for those services within the district; a statement of options available to meet the forecast demands; the authority's intended role in meeting the demands; proposals for meeting, including proposals for new or replacement infrastructure; a statement about the extent to which the proposals will ensure the protection of public health and promote effective and efficient waste management and minimisation.

[333] We were advised that the Waste Minimisation Plan was prepared pursuant to the special consultative procedure under the LGA 2002. In evidence and submissions there was much criticism of the Council and whether its consent to the proposal and defence of its decision in these appeals meant that it was complying with the Waste Minimisation Plan. Ngāti Whātua Ōrākei and Te Uri o Hau[119] said that they see the Council as *missing*

[118] Section 44 WMA 2008.
[119] Te Uri o Hau and Ngāti Whātua Ōrākei, closing submissions, dated 19 March 2023 at [2].

in action and its decision to support the proposal is contrary to the policies and targets of the Waste Plan. Mr Foster, in his closing submissions, suggested that the Council's support for the proposal is a misuse of the consent process, and suggested that the Council could even have used the AUP policies and Waste Minimisation Plan as a basis for opposing the proposal from the outset.

[334] In response, the Council noted that landfills are not prohibited in the AUP, and that caution should be exercised in elevating the role of the Waste Minimisation Plan and Low Carbon Plan in the resource consenting process under s 104(1) of the RMA. It submitted that neither document is an aid to the interpretation of the relevant AUP provisions, especially given the Waste Minimisation Plan was prepared after the AUP was made partially operative in November 2016.

[335] It noted the role of the Waste Minimisation Plan and Low Carbon Plan in the statutory criteria under s 104(1)(c) as potentially being *any other matters* the Court may consider relevant and reasonably necessary to determine the application. The Council does not accept that its support for the proposal is contrary to the Waste Minimisation Plan. While that plan includes the aspirational goal of zero waste by 2040, it recognises that landfills will still be needed, at least in the short to medium terms. Whether the proposal will be commercially viable, it said, is a matter for Waste Management.

[336] Waste Management submitted that the suggestion of *no new landfills* as Council's policy is contrary to other express statements of the Waste Minimisation Plan to the effect that there remains a need for landfills.[120] The Waste Minimisation Plan expressly recognises that landfills continue to be required:[121]

> It is not yet technically or economically feasible to divert all materials from landfill. There is no viable method for re-using or recycling many of the products in use today, and the products that will replace them haven't yet been invented.

[337] We were pointed to the statement that there would be *no new landfills* in clause 5.2 Māori priorities of the Waste Minimisation Plan. The priorities outlined in that section are noted as being *identified as priority actions by mana whenua and mataawaka through engagement on this plan or drawn from iwi management plans*.

[338] We were advised that the Council's most recent waste assessment is made at clause 6.2 of the Waste Minimisation Plan and in the Appendix. At clause 7.2 it recognises the transport inefficiencies of moving waste out of the region. It records that around 40% of waste to landfill is currently trucked out of the region (a round trip of 140-300 km).

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[120] Waste Minimisation Plan at clause 3.2, p18; 8.2.3 at p53.
[121] Waste Minimisation Plan at clause 3.2, at p18.

[339] The future projections of waste are addressed at clause 7.3 of the Waste Minimisation Plan, which records the current heavy reliance on *out of region* disposal:

> Currently, around 40 per cent of our refuse is trucked out of Auckland … While there is adequate landfill disposal capacity for the near-medium-term, relying on this capacity doesn't meet our mandate to promote waste minimisation. It also ignores the other cost of waste, including transport costs.

[340] The 2017 Waste Assessment noted that as at that time, the combined capacity of the landfills servicing Auckland would be enough to service Auckland's waste disposal needs for the next decade (that is until 2027). It also noted transportation issues associated with transfer of waste across the region.[122]

[341] The Waste Minimisation Plan noted the importance of building resilience into the waste management systems, including to cater for future natural disasters.[123]

[342] Finally, the Waste Minimisation Plan expressly acknowledges that Auckland needs to retain a safe residual waste disposal option. It says:[124]

> Landfill disposal is regarded as a poor waste management option, particularly in the context of managing organic wastes which decompose over time and release methane. Litter and illegal dumping have both environmental and social effects, damaging the natural environment and harming communities' sense of pride in place.
>
> These objectives are concentrated at the least preferred end of the waste hierarchy – treat and dispose. While they are the least preferred methods, it is important we continue to manage residual waste effectively for public and environmental health and safety reasons.

Evaluation of Waste Minimisation Plan

[343] While we accept that the Plan is the sum of its parts, and there is only one reference to *no new landfills*, we observe that it is unhelpful to have such references in the Plan without making clear the place of that statement in the objectives, policies and methods for waste management and minimisation in Auckland.

[344] We accept the statements made about landfill being at the lowest end of the hierarchy of waste management, and note the comments about landfilling capacity in the region. However, it is not helpful to state the aspirations of tangata whenua in such a document in a vacuum, and without reference back to those aspirations when formulating methods for waste management and minimisation.

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[122] Auckland's Waste Assessment 2017, at p86 and p 85.
[123] Waste Minimisation Plan at clause 7.3, at p49.
[124] Waste Minimisation Plan at clause 8.2.3, at p53.

[345] We can only say that the case put by Waste Management assuming that waste would continue at least at the current levels if not increase over future years, appears to defy the purpose of the WMA 2008 and the objectives of the Waste Minimisation Plan. This may require further government intervention, but at this stage we do not accept that we should uncritically assume that a landfill with volumes at the same levels currently received at Redvale will continue into the future.

[346] It is clearly the intention of the Waste Minimisation Plan that there be significant reductions both by 2030 and by 2040, and we anticipate government intervention if these objectives are not being pursued. Having said that, we acknowledge that there is nothing within any of the documents that requires, or even aspirationally states, that there will be no need for any solid waste disposal to landfill in the near to medium future.

[347] The issue then turned on the volumes that may be required in the future, and whether Redvale or Whitford, or other existing landfills, may be able to take any smaller quantity of residual waste. In our view that is speculative at this stage, but goes to the question as to whether there is a clear necessity for a landfill of this size.

[348] As we discuss later, that addresses the rate of utilisation of landfill *airspace*, or the life of a landfill, rather than the construction of a new landfill. This does not present an insurmountable hurdle to Waste Management. While indicating general intentions to reduce waste and use of landfills this does not bear upon the merits of an application. The inverse is also correct that arguments as to national, regional or local **necessity** for landfills do not fit with relevant legislation and plans.

The Wildlife Act 1953

[349] Issues as to the relevance of this Act arose during the course of the hearing and we sought and received submissions from the parties. Helpfully, an agreed position was reached between counsel for the various parties as to the interface between the RMA and the Wildlife Act.

[350] The construction of the landfill will result in habitat loss and/or direct harm to wildlife, including Hochstetter's frog and long tailed bats. The experts agree that *the general project effects include frog mortality, permanent habitat loss, degradation and fragmentation through vegetation clearance, earthworks activities and potential sedimentation.*[125]

[351] The Wildlife Act predates the RMA and has been in force since 1953. It forms part of the legislative landscape. The Director-General has power to authorise the

[125] JWS, Lizards, frogs and invertebrates, dated 23 May 2023, at [1.1](i).

catching alive or killing of wildlife.[126]

[352] The Director-General pointed out that the purposes of the RMA and the Wildlife Act differ. The RMA is focussed on sustainable management whereas parts of the Wildlife Act that are relevant to the proposed landfill focus on wildlife protection. Under the RMA, adverse effects associated with habitat loss and harm to threatened species can be addressed by either refusing resource consent or imposing conditions that address habitat loss and harm.[127]

[353] At that high level the parties were agreed. The RMA and the Wildlife Act involve separate processes. Any resource consents obtained under the RMA do not relieve an applicant of the need to address any issues that may arise under the Wildlife Act.

[354] Waste Management specifically acknowledged in its closing that it will apply for (and only be able to proceed if granted) any further approvals for its ongoing monitoring, salvage and relocation activities of wildlife if consent is granted. It submits this approach is typical of activities requiring such approvals, given the particular activity may be ultimately adjusted by the resource consents granted and require Wildlife Act approvals that reflect this.

[355] We agree that we do not have jurisdiction under the Wildlife Act 1953. It is sufficient to note that if consent is granted, a separate consenting process may be employed under that Act.

H. Would the landfill be a regional facility?

[356] Waste Management described its proposed facility as the Auckland Regional Landfill, but this appears to have its genesis in an application for a plan change that accompanied the original application. With respect, we can find no support for such an identification in any form of governmental or Auckland Council document. Waste Management is one of several private operators who operate landfills in and around Auckland for profit, Redvale being the most prominent.

[357] Although landfills are identified in the AUP as infrastructure, it does not identify them as regionally significant infrastructure. Dr Mitchell, the planner for Waste Management, opines that 'infrastructure' should be read as regionally significant. We do

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[126] Section 53, Wildlife Act 1953.
[127] *Solid Energy NZ Ltd v Minister of Energy* [2009] NZRMA 145, at [112] (HC).

not agree.

[358] It is not for us to interpolate into documents and/or reinterpret the AUP when its intention is clear. Such interpolation might be possible where there is doubt, but in this case landfills were never identified as regionally significant infrastructure. We do note, however, that the AUP does not identify *any* infrastructure as 'regionally significant'.

[359] As we understand the evidence, there is no guarantee that household waste would necessarily be disposed of to the proposed landfill. As well as from Auckland, we assume that Waste Management hopes to attract waste from Northland. Nevertheless, there is no indication that this is a regional facility as defined within the AUP, any national document or otherwise.

[360] As we have discussed, Chapter E26 on its ordinary interpretation could apply to all infrastructure – not just network utilities. That being the case, the provision for landfills only in certain areas as a non-complying activity might be argued as contrary to the enabling provisions in E26.

[361] However, that conclusion would require decisions as to whether there had been a failure by Council to properly provide for such infrastructure. Rather, the proper interpretation when looking at E26 and E13 is that the non-complying status requires a close examination to ensure that it is acceptable not only in terms of the AUP provisions as a whole, but in terms of its effects.

[362] We conclude that that is a logical consequence of the application of the provisions in the AUP, where so many of the relevant objectives and policies refer to avoiding, remedying or mitigating effects, and appropriateness generally. Reliance on other provisions such as essential services is not helpful in the context of the RMA. This Court is, of course, a creature of that Act and must apply the terms of the Act and the relevant plans.

[363] We note that originally an application was made for a plan change which was refused at first instance. Waste Management did not file an appeal in respect of that decision. Accordingly, we have no discretion to consider whether or not a plan change should be made to provide for a landfill at the Site.

Future need for landfill

[364] We received evidence on the capacity of existing Auckland landfills. If filling were to occur at the same volumes and frequency as it has to date, those landfills will reach capacity within the next 5-10 years. That raises a question as to what thought has been

given to the future requirements for landfills by Auckland Council.

[365] If the Council had intended that landfills be provided for in the Auckland region, then we would have anticipated that they would have been included within the AUP. Although this Court was not involved in the consideration of the AUP provisions, we can infer that the Council deliberately decided not to make direct provision for landfills within the AUP.

[366] However, its status as a non-complying activity does contemplate that there may be circumstances (which might be described as unusual or exceptional) that may justify a grant of consent. We agree that the AUP does not provide that any application for a landfill needs be considered as a plan change, and it therefore seems that there is the option of seeking a plan change or a non-complying consent.

[367] Overall, we consider that the criteria brought to bear would be nearly identical. The AUP contemplates plan changes for certain future urban development. It may be (although not explicit within the AUP) that the Council considered that a landfill was best addressed on the same basis.

[368] Finally, we acknowledge that appropriate waste disposal is a fundamental requirement of all communities. The legislative changes that have removed the requirements on Councils to assess and provide waste collection and disposal services mean that no statutory body has responsibility any more for providing those services, except perhaps tangentially with regard to their Health Act 1956 obligations.

[369] The legislative focus since 2008 is on waste minimisation and a decrease in waste disposal. A Waste Minimisation Plan must be prepared, but we were not advised how it would be implemented. What that means for Auckland's waste minimisation and disposal is unclear.

[370] If, for example, waste minimisation initiatives are not so successful as to remove the need for landfills before landfill capacity runs out, the City will be left with a problem. While that is not a problem for this Court to remedy, we find that it is appropriate to broadly recognise that, until there are other viable options for waste disposal, landfills are still going to be used in Auckland. That is not to say that this proposal gains an advantage because of that finding – it is merely to observe that it is infrastructure that would perform a public service.

[371] We observe that increases in waste levies may change behaviour, but that has not occurred yet. If there were to be more recycling of construction/demolition waste, that would certainly reduce the amount of waste going to landfill – but again – at this time

present initiatives can only achieve so much. At the moment there is still a need for landfilling in Auckland. In order to drive further waste minimisation efforts, it might be appropriate to place annual limits on the amount of waste to be disposed of to the proposed landfill. This was not raised in the hearing and thus we do not consider it further.

I. Landfill capacity in Auckland

[372] Landfill capacity was a matter of concern and debate among parties to the proceeding, particularly Fight the Tip and Te Uri o Hau. The proposed landfill would be a class 1 landfill. There are five classes of landfill in New Zealand, which can be colloquially described as follows:[128]

- Municipal disposal facility: class 1 – in effect, accepts all waste including household waste, commercial or industrial waste and green waste among others;
- Construction and demolition fill disposal facility: class 2 – it accepts waste from construction and demolition activity but does not accept household waste or waste from commercial or industrial sources among others;
- Managed or controlled fill disposal facility: classes 3 and 4 – in effect, accepts inert waste material from construction, demolition and earthworks and does not accept household or commercial waste or waste material from construction and demolition activity (except for inert waste material);
- Cleanfill facility: class 5 – accepts only virgin excavated natural material (such as clay, soil, or rock) for disposal.

[373] Waste Management provided the Court with detail of the current class 1-4 landfills located within and servicing the Auckland region. Apart from Claris on Great Barrier Island (which is about to close) there are two class 1 landfills within Auckland's boundary, being Redvale and Whitford. However, approximately 80% of Auckland's waste is accepted by two class 1 municipal landfills at Hampton Downs in the Waikato and Redvale. Whitford has limits on the rate of waste acceptance and receives approximately 15-20% of Auckland's waste. Whitford had original available air space of 12 million m^3, but less than 6.8 million m^3 is now remaining.

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[128] Waste Minimisation (Calculation and Payment of Waste Disposal Levy) Regulations 2009 at s 3B.

[374] Also, Puwera landfill in Northland currently accepts very small volumes of Auckland's waste collected from Northland Waste transfer stations. It accepts all of Northland's waste and has an air space of 4 million tonnes. If it accepted all of Redvale's annual waste, it would be full in 3-5 years.

[375] There are two class 2 landfills at Puketutu and New Zealand Steel, which serve Watercare and New Zealand Steel respectively. There are 11 class 3-4 landfills which represent a combination of private and open facilities. They can only accept inert materials. Auckland's Waste Assessment indicates there are likely to be over 100 class 5 landfills (cleanfills) in Auckland, although the exact number is unclear.[129]

[376] Fight the Tip argued that as the household component of Auckland's waste accounts for 20% of the waste stream, the other 80% is construction and demolition waste which is non-putrescible. However Waste Management pointed out, and we agree, that landfill gas is generated by the breakdown of all organic matter, including that which does not come from households. Many commercial sources include putrescible waste (cafes, restaurants, etc). Even construction and demolition waste can include organic components which break down.

[377] The Waste Assessment notes that the other 80% of Auckland's waste stream is from commercial sources and is in effect all waste other than kerbside waste.[130] This is different from construction and demolition waste, which only forms one part of commercial waste. Commercial sources include the residual waste generated by businesses, hospitals, schools etc. Unlike construction and demolition waste, which can go to a class 2 landfill, all of the other general waste streams must go to a class 1 landfill in terms of the WasteMINZ Guidelines.[131] It seems about 20% of the waste stream is rubble. (We assume this is concrete, rocks and similar.)

[378] The organic component of the Auckland waste stream was a matter of dispute. Surprisingly, there is no clear assessment of the actual component that must go to a class 1 landfill. From the evidence of various witnesses, we conclude it is between 35 and 50%, but will vary depending on natural events (i.e. floods), the rebuilding cycle and major infrastructural construction. We conclude that the submission by Fight the Tip that class 2 and below can provide capacity for 80% of the waste stream is not entirely correct. Notwithstanding that, there is clear ability for some of Auckland's current waste stream to be diverted or reused (for example timber and concrete recycling).

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[129] Auckland Waste Assessment 2017 at clause 5.5.5.
[130] Auckland Waste Assessment 2017, Table 7, at p50.
[131] Technical Guidelines for the Disposal to Land (WasteMINZ, August 2018).

[379] Aucklanders produce approximately 1.6 million tonnes of waste per annum that requires landfilling. A large portion of this waste is expected to be generated in north and north-west Auckland. This evidence was undisputed by all of the corporate and technical waste sector experts who presented evidence. Even with some reuse and diversion to other landfill classes, and even with reducing volumes of waste, there is going to be a continuing demand for class 1 landfill disposal into the future.

[380] As to remaining capacity, Waste Management argued that if Puwera accepted the equivalent of what Redvale currently accepts per annum it would be full in 3-5 years. Also, the Redvale consent will expire by around 2028. Waste Management argued that while Hampton Downs has greater capacity, it currently takes 35-45% of Auckland's residual waste and would fill more quickly if that percentage increased. It is consented to 2030, and while it may be able to renew its consents that is not a foregone conclusion.

[381] Whitford cannot accept a greater proportion of Auckland's waste than it currently does, and both it and Hampton Downs would likely be full by 2035-2037 if they had to accept all of Auckland's waste. However, even if those restrictions were relaxed, Whitford has limited remaining capacity of 6.8 million m^3.

[382] Waste Management observed that, while Hampton Downs has a larger capacity, its closure during the week subsequent to the Auckland flooding and Cyclone Gabriel events, and consequent requirement for Redvale to accept the majority of Auckland's waste in the interim, is evidence enough of the risk Auckland would be taking if it limited landfill infrastructure. In terms of other landfill types that may be able to accept some of the expected waste, there are no class 2 landfills in Auckland ready to take all types of construction and demolition waste. Class 3-5 landfills are significantly restricted in the kinds of waste they can accept, as all waste must be inert.

Alternative methods for waste disposal

[383] On alternative methods for waste disposal, some of Fight the Tip's members and witnesses consider that development of a waste to energy plant is a relevant alternative. However, the organisation's primary position is that:

(a) there is no immediate need for the proposed landfill as Auckland presently has sufficient landfill capacity and there is no evidence of significant adverse effects arising if this consent is not granted;

(b) at some point in the future some additional landfill capacity may be needed, but not at the scale proposed, not in the proposed location and ideally as a last resort after best-practice waste reduction, renewal and recycling has taken place.

[384] For completeness we address the assertion that waste minimisation or the use of other technologies may reduce the demand for a landfill.

Waste minimisation

[385] Waste Management called evidence from Mr Chris Purchas, a person with considerable experience in waste policy and regulation, including waste minimisation in New Zealand. Fight the Tip called Mr Holger Zipfel, an engineer with particular experience in energy from waste projects. Ngāti Whātua Ōrākei called Mr Duncan Wilson, who has experience in the waste and resource recovery sector. All participated in conferencing and produced a JWS dated 13 May 2022.

[386] They agreed:

(a) that current policy settings focus on reducing waste generation and enabling more recycling and recovery activities;

(b) that these settings are intended to bring about a move to a low waste economy through the adaption of a circular economy, which means designing out waste and keeping resources in use for as long as possible;

(c) that the government has acknowledged in policy proposals that establishing a circular economy in New Zealand involved a transition over a period to 2050;

(d) there is an ongoing need for residual waste disposal capacity in the Auckland region;

(e) that landfill capacity is still going to be an ongoing requirement; and

(f) the scale of landfilling activity is one of a number of factors that influence the cost and therefore incentives for landfilling versus resource recovery.

[387] In his evidence, Mr Purchas considered there remains a need for substantial residual waste disposal capacity, in Auckland and in New Zealand, for the foreseeable future. Further, that landfills are best placed to fulfil that role over other technologies raised throughout the consenting process, including waste to energy incineration technologies, because:

- All those other options result in waste by-products that require final residual disposal options.
- None of the national and local waste policy frameworks show any specific intention to utilise regulatory levers like the waste disposal levy to significantly

subsidise or otherwise encourage other technologies. The disposal levy is not applicable to incineration at this time. Landfills, therefore, remain the most commercially viable residual waste option in New Zealand.

- There remains an immediate and ongoing need to safely manage residual waste.
- Landfills are a flexible waste disposal system and can accommodate fluctuating waste capacities and volumes.
- Large-scale landfills are better able to accept decreasing waste volumes while running effective gas capture systems, and spread the capital costs of establishment, compared to several small-scale landfills.

[388] Concerns from some that ongoing landfill capacity will encourage producers to send waste to landfill that could otherwise be recovered do not align with national and local policy frameworks, according to Mr Purchas. Not having an ownership interest in a disposal facility incentivises a generator of waste to reduce their costs by reducing the amount of material requiring disposal.

[389] There was also evidence that addressed in detail allegations that Waste Management's commercial incentive is to maximise its return by filling the landfill as quickly as possible – conflicting with local and national policy to reduce waste to landfill. Further, there was evidence about the influence of waste levies on the nature of materials disposed of to landfills. We do not propose to address these matters as we have found that there is a need for landfill capacity in Auckland. The rate at which a landfill is filled or the way in which levies are made and imposed are not matters relevant to this proposal.

[390] If the current waste to class 1 was half the current waste stream (excluding recyclables and construction) that would still produce around 800,000 m^3 per annum. If half of that volume went to a northern landfill, that would be around 400,000–500,000 m^3. Assuming extremely good separation and lower population growth, 500,000 m^3 of waste to a northern landfill represents around 50-60 years' capacity to fill up to 30 million m^3 of air space. This compares to around 30 years receiving Redvale's current volumes. In short, a landfill between 10 million m^3 and 30 million m^3 seems realistic for known and potential waste generation in Auckland.

Finding K

[391] There is going to be a continuing demand for a class 1 landfill in Auckland even if waste reduction strategies lead to less residual waste. We are less convinced as to the volume required to be placed in such a class 1 landfill.

J. Effects

[392] In this section it is axiomatic to our consideration that it is conceded by the relevant experts, and parties, that there are significant adverse effects after avoidance, remediation and mitigation. Waste Management relies on offset and compensation to bridge the gap and satisfy us that:

(a) the discharges from the Site can be avoided to a significant level of certainty. We regard the risks as minimal.

(b) in relation to the loss of stream length, habitat and species that within a reasonable period of time (but not immediately) the avoidance, remediation or mitigation offset and compensatory work will render a better environmental outcome not only on the Site but in the wider area.

[393] We acknowledge that Waste Management, having chosen the Site, has then undertaken significant works to seek to minimise impacts, including recent changes to reduce areas of loss and increase areas of gain, in particular predator-proof fencing, predator control generally and a significant increase in the amount of offsite riparian works on the Hōteo River.

[394] As previously discussed, in final submissions Mr Matheson proposed the Northern Valley, which has a similar size and dimension to the Landfill Valley, would be given additional protection for the stream and riparian margins. We discuss this in due course because this does appear to introduce the potential to avoid the effects of short-term loss of species if the area is deforested.

Relationship of Māori with the values of the area

[395] It is clear that the concerns of tangata whenua relate not only to the potential for discharges from the site, but also to the potential loss of taonga species and the mauri of the site as a whole and of the Hōteo River. In order to appreciate the relationship concerns of Māori arising from this proposal, it is necessary to understand the cultural landscape of the site and the surrounding area within both an historical and contemporary context.

[396] We conclude on all the evidence that this location holds immense cultural, historical, and environmental significance for the iwi and hapū participating in this process. We received much evidence on these issues, and we are grateful to all who made an effort to prepare statements and came forward to speak to them. We have also

considered the Cultural Values Assessments that were prepared.[132] We were not made aware of any Mana Whakahono a Rohe: Iwi participation arrangements or relevant planning documents recognised by iwi.

[397] We acknowledge that the proposed landfill has raised many issues for iwi and hapū – relating not only to the effects it might have but bringing back into focus concerns about past actions of the Crown and the impacts they have had on the Hōteo and Kaipara moana.

[398] We have referred by name in our decision to some witnesses from whom we heard. The fact that we have not specifically referred to others by name is no reflection on them. All the evidence we read and heard has informed our decision-making.

Te Rūnanga o Ngāti Whātua

[399] Ngāti Whātua is a confederation of three main tribes occupying the lands between the Hokianga Harbour and Tāmaki Makaurau, these are Te Roroa, Te Uri o Hau and Te Taou. Each of these tribes is affiliated to the Mahuhu-ki-te-rangi waka. The Rūnanga Board of Trustees comprises hapū representatives from five takiwa - Ōrākei, South Kaipara, Whāngarei, Northern Wairoa and Otamatea. The Board represents approximately 12,000 registered Ngāti Whātua.

[400] The confederated hapū and tribes are listed in the 2008 Deed of Mandate. They include: Ngā Oho, Ngāi Tāhuhu, Ngāti Hinga, Ngāti Mauku, Ngāti Rango (sometimes referred to as Ngāti Rongo), Ngāti Ruinga, Ngāti Torehina, Ngāti Weka, Ngāti Whiti, Patuharakeke, Te Parawhau, Te Popoto, Te Roroa, Te Urioroi, Te Taou, Te Uri Ngutu, Te Kuihi and Te Uri o Hau. We acknowledge that Te Rūnanga has authority to speak on issues of rangatiratanga, kaitiakitanga, tikanga and kawa for Ngāti Whātua.

Marae

[401] Te Rūnanga o Ngāti Whātua are also affiliated with 35 marae of the Kaipara: namely Haranui; Kāpehu; Ahikiwi; Naumai; Ngā Tai Whakarongorua; Ōmaha; Ōrākei; Ōtamatea; Korokota; Ōtuhianga; Ōturei; Pahinui; Parirau; Pōuto; Puatahi; Rewiti; Ōruāwharo; Te Kia Ora; Rīpia; Taita; Takahiwai; Tama Te Uaua; Te Aroha Pā; Te Kōwhai; Rawhitiroa; Toetoe; Te Pounga; Te Whētu Mārama; Tirarau; Waihaua; Waikarā; Waikaraka; Waiohau; Waiotea.

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[132] On behalf of: Te Rūnanga o Ngāti Whātua, dated 21 October 2020; MKCT, dated February 2019; Ngāti Rongo, dated February 2020.

[402] Ngāti Whātua is the primary iwi occupying the area north of the Tāmaki River. Their northern boundary is shown on a map of the Ngāti Whātua rohe. Evidence was also presented for Ngāti Whātua saying the site lies within the wider traditional rohe of Ngāti Whātua.

Ngā Maunga Whakahii o Kaipara Development Trust

[403] Ngā Maunga Whakahii O Kaipara Development Trust (**Ngā Maunga Whakahii**) is the Post Settlement Governance Entity (**PSGE**) of Ngāti Whātua o Kaipara.[133] It is a s 274 party to Te Rūnanga's appeal. Ngā Maunga Whakahii holds, among other things, the commercial assets returned to it under the settlement.

[404] The term Ngāti Whātua o Kaipara is not traditional and was adopted during the claim period to avoid confusion between Ngāti Whātua in Ōrākei, Ngāti Whātua from Te Uri o Hau and Ngāti Whātua in south Kaipara. Ngāti Whātua o Kaipara is the name that was agreed upon by the majority of hapū and whanau of the five marae of south Kaipara (Reweti, Haranui, Kakanui, Araparera and Puatahi) during the claim and settlement process. This is the primary area of interest that Ngā Maunga Whakahii works within. Witnesses called for Ngā Maunga Whakahii held local affiliations and gave a local perspective on issues and values in this area.

Ngāti Manuhiri

[405] Ngāti Manuhiri are the descendants of the eponymous ancestor Manuhiri, the eldest son of the Rangātira and warrior chieftain Maki, himself a descendant from the Tainui waka. From this whakapapa Ngāti Manuhiri, in their own right through Maki and his sons, have unbroken ties to their ancestral rohe. Maki, Manuhiri and their people, over time, settled in the southern Kaipara, Waitākere, Whenua roa ō Kahu (North Shore), Albany up to Mahurangi districts including Pakiri, Matakana, Puhinui (Warkworth), and finally the eastern offshore islands such as Hauturu ō Toi/Little Barrier and Āotea/Great Barrier.

[406] Ngāti Manuhiri made strategic marriages with other tribal groupings such as Ngāi Tāhuhu and Ngāti Wai among others, who occupied the eastern coastline and many of the offshore islands. Through these marriages Ngāti Manuhiri strengthened their links with the land, sea, and islands on the eastern coastline from Paepae ō Tū (Bream Tail) to Te Raki Paewhenua (Takapuna area) and inland Kaipara areas.[134]

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[133] Section 11, Ngāti Whātua o Kaipara Claims Settlement Act 2013.
[134] Cultural Values Assessment, Ms Fiona McKenzie (MKCT), at section 1.1.

[407] Ngāti Manuhiri maintain an unbroken connection with their rohe exercising their mana through manuhiritanga in the form of tribal traditions, songs, place names, tupuna (ancestral rights), urupā (burial grounds) and kaitiakitanga.[135]

[408] Omaha Marae is the only Ngāti Manuhiri marae within their rohe. The Ngāti Manuhiri rohe, or area of interest, has been formally recognised in the Ngāti Manuhiri Deed of Settlement.[136] The Ngāti Manuhiri Claims Settlement Act 2012 among other things, highlighted the iwi designated area for Right of First Refusal which includes land around Tohitohi o Reipae and the headwaters of the Hōteo.[137] This area includes the Site of this application, but the site is privately owned. Therefore, the Right of Frist Refusal does not apply.

[409] A statutory acknowledgement in favour of Ngāti Manuhiri sits over this region, including the landfill site. The statement of association that supports the acknowledgement sets out that:[138]

> **Tohitohi o Reipae**
>
> Tohitohi o Reipae is a prominent landmark lying to the north west of Puhinui (Warkworth). This mountain was an important traditional boundary marker and is a significant historical reminder of the early ancestral origins of Ngāti Manuhiri. The mountain takes its name from the ancient and famous Tainui ancestress Reipae, who is said to have travelled north from the Waikato in the company of her sister, Reitu, who was seeking the hand of a leading northern chief Ueoneone. Unusually Reipae and Reitu travelled on the back of a large pouakai or eagle. On their journey they alighted at Taurere o Reipae at Pakiri and then at Tohitohi o Reipae, before finally arriving at Whanga a Reipae (Whangarei). Here Reipae married the leading Ngai Tahuhu rangātira Tahuhupotiki. Ngāti Manuhiri are descendants of this union. The mountain continues to be a significant landmark to Ngāti Manuhiri and is valued for its ecology including the Waiwhiu kauri grove.
>
> **Te Awa Hōteo**
>
> Te Awa Hōteo (the Hōteo 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. The river has particular importance as the home of the eponymous ancestor Manuhiri who occupied pā at Tūtā, Umukuri and Mangatū where he lived until his death. The lower reaches of the river were also an important boundary marker between Ngāti Manuhiri and other groups. Until the late 1860s the lower river was the focal point of settlement for Uri ō Katea, a hapū of Ngāti Manuhiri who descended from Tūwhakaeketia, the second son of Manuhiri. Of special importance are Taihāmau and Iriwata, the sons of Tūwhakaeketia, who stand as stones in the river. They are located just above the Tarakihi rapids which marked the navigable upper reaches of the river.

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[135] Cultural Values Assessment, Ms Fiona McKenzie (MKCT), at section 1.1.

[136] Exhibit 45, Ngāti Manuhiri and Crown Deed of Settlement; Exhibit 53, Ngāti Manuhiri and Crown Deed Settlement, Attachment 1.

[137] Cultural Values Assessment, Ms Fiona McKenzie (MKCT), Figure 5 – Map depicting MKCT Right of First Refusal area; Exhibit 53, Ngāti Manuhiri and Crown Deed of Settlement: Attachment 2.

[138] EIC, Mr Terence (Mook) Hohneck, dated 29 April 2022, at [14] and [16].

> From the time Ngāti Manuhiri settled the area in the late seventeenth century, kāinga and cultivations were maintained beside many parts of the river including at Hōteo, Te Awapū, Mangakura, Mangatū, Awa Matangao and Kawakawa. The Hōteo River provided a wide range of fish, eels, kākahi and water fowl. Kāinga on the lower part of the river were renowned for their karaka groves from which ripe kernels were harvested in autumn. As the river extended many kilometres inland to Tomarata and Whāngaripo it provided a traditionally important east-west transport route.

[410] We received evidence from the chairperson of Omaha Marae, Ms Annie Moana Baines, and from Mr Mikaera Miru, and then from Mr Hohneck for MKCT. Mr Miru said that the Ngāti Manuhiri whanau of Omaha Marae are the mana whenua who keep the fires of the tupuna burning on the whenua. He said that MKCT are fully aware of the links between the Omaha Marae whanau and the site of the proposal, and needed to have regard to them as mana whenua and engage with them under tikanga. He said they (at the marae) were unaware of decisions being made by MKCT. He set out a process he said the MKCT should have followed to ensure decisions are tika. Ms Baines reiterated the Marae's position and spoke of MKCT's obligations to the Marae.

[411] We note a clear tension between the Omaha Marae Board and MKCT, especially after MKCT reached agreement with Waste Management. The Marae is the only marae of Ngāti Manuhiri, the beneficiaries are clearly Ngāti Manuhiri, but it has no mandated authority to speak for Ngāti Manuhiri as a whole on resource management issues. Nevertheless, we recognise that the Marae represents the whanau who ahi kā to the area and live in the vicinity of the Marae. We acknowledge and take into account their views.

[412] Mr Hohneck spoke of the mandate of the MKCT particularly in relation to resource management issues. The mandate is confirmed every five years *in an open and transparent vote. It is open to challenge, and it is challenged.*[139] All legitimate members can stand to be trustees of the MKCT at these elections. He said:[140]

> All of the trustees on our trust are kaumatua in our right…

[413] Mr Hohneck asserted that those who gave evidence on behalf of Omaha Marae should listen to those who *our people support to speak for them*.[141] Mr Hohneck said:[142]

> While the Ngāti Whātua Runanga represent Ngāti Whātua, it is the Ngāti Manuhiri Settlement Trust that is mandated by statute and by our people. In 2011, 99.44% of our people voted in support of the settlement negotiated by myself and the late Laly Haddon, and 97.44% voted in favour of the Ngāti Manuhiri Settlement Trust receiving the redress and taking on the role it now does (reference the Deed of Settlement).

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[139] NOE, 6-28 April 2023, p159 at lines 29-31.
[140] Mr Mook Hohneck, speaking notes dated 12 April 2023, at [7].
[141] NOE, 6-28 April 2023, p160 at lines 15-17.
[142] Mr Mook Hohneck, speaking notes, dated 12 April 2023, at [4].

[414] We note that the Ngāti Manuhiri Settlement Trust established the MKCT, which holds the mandate on environmental matters and has representative status to make resource management decisions for Ngāti Manuhiri in its rohe. It now supports the landfill. We also recognise that Omaha Marae opposes the landfill.

[415] Accordingly we acknowledge the clear role of the MKCT to speak for Ngāti Manuhiri on resource consent matters. The Trust now supports the proposal. Its reasoning is based on significant benefit to Ngāti Manuhiri, including acquisition of the land, papakainga on the site and direct involvement in the maintenance of ecological and cultural values on the site. Members of the local Omaha Marae strongly oppose the application. We acknowledge their right to do so.

Ngāti Whātua Ōrākei and Te Uri o Hau

[416] We heard evidence regarding the whakapapa of Ngāti Whātua Ōrākei and Te Uri o Hau and their close association with Ngāti Whātua. Mr Joe Pihema tells us that the broader tribal area for the hapū; Ngaoho, Te Taou, Ngāti Whātua Tūturu and Te Uri o Hau stretches along the west coast from the Manukau Harbour to Maunganui Bluff just north of Dargaville. On the east coast their border stretches from Mangawhai in the north to Tāmaki and moves inland at various places.

[417] The tribal name Ngāti Whātua is derived from the subtribe hapū Ngāti Whātua Tūturu who are based on the south Kaipara head at Haranui Marae. Ngāti Whātua Tūturu and neighbouring hapū Te Mangamata lands occupy the peninsula opposite the mouth of the Hōteo.

[418] Mr Pihema described that at the heart of this region is the Kaipara Harbour, a vast expanse of water with numerous rivers and creeks reaching out to a myriad of Ngāti Whātua villages and kāinga. He said:[143]

> The Kaipara Harbour and Wairoa River have supported over 14 generations of my people and helped create and shape the identity of the modern day Ngāti Whātua tribe. The waters of the Kaipara Harbour (which includes the Wairoa River) continue to influence and shape our lives and will do so for many generations to come.

[419] Ngāti Whātua described areas of significance in their Cultural Values Assessment as:[144]

> All of the hills and ridges in the catchment were named, as were all of the waterways, including even the smallest tributaries. The high points that encircle the Hōteo catchment provided reference points for the local iwi and were important boundary

[143] EIC, Mr Joe Pihema, dated 1 May 2022, at [3].

[144] Cultural Values Assessment, Mr Mikaera Miru (Te Rūnanga o Ngāti Whātua), dated 21 October 2020, at p11 and 12.

> markers. Forming the western edge of the catchment between Te Arai and Wellsford are the high points traditionally known as Pukemiro, Pukenui, Pukemata, Ngāmotu and Hauhanganui. To the west of Wayby are Kikitangeo and Te Mauku Ridge, which extends south to Mt Harriot. Further south overlooking the mouth of the Hōteo River, the catchment is enclosed by fortified hills known as Pukekohuhu and Rangi te pū. Standing in the northeast at the head of the Whangaripo sub catchment are the hills known as Haukāwa and Tamahunga. At the head of the Waiwhiu sub catchment is Tohitohi ō Reipae, which is a landmark of importance in the traditions of Te Tai Tokerau (Northland). The catchment to the south are the high points known traditionally as Koihamo (Salt Hill), Paekauri and Te Kohanga. Overlooking the southern side of the Hōteo River mouth is Atuanui, a landmark of central importance to the identity of Ngāti Rongo, hapū of Ngāti Whātua.
>
> The catchment takes its name Hōteo, or the calabash, from a specific locality situated beside the Hōteo River just upstream of the junction with the Kaitoto stream. In a traditional sense, this name applied only to the lower section of the river between the confluence of the Waiteitei, Waitapu, Whangaripo and Waiwhiu streams and the river mouth at Puatahi.
>
> Each tributary in the Hōteo catchment had its own name which gave it a unique identity, a mauri or spiritual essence, which is still seen by tangata whenua as being of fundamental importance in their management of resources and ancestral connections. Some of the traditional names of these waterways, for example, Waiteitei, Whangaripo, Waiwhiu, Awarere, Anganga Pakaru, Waitoto and Ngārarapapa were named because of their historical and spiritual associations. Other like Waikōwhara, Pīkoko and Te Kapu were named because of the resources found within them or their catchment areas. This intricate pattern of place-names indicates that the tangata whenua of the area have associations with the waterways of the entire catchment.
>
> All of the sub tribal groups of the district had ancestral associations with various parts of the block, and for this reason title was awarded to Te Uri o Hau, Te Mangamata, Ngāti Whātua Tūturu and Ngāti Rongo hapū of Ngāti Whātua as well as to Te Uri o Katea and Ngāti Manuhiri. Four reserves were, however, retained in Māori ownership: Puatahi on the southern side of the Hōteo River mouth, Maungakura on the lower Hōteo River, Mataia at Glorit and Piritaha near Tauhoa. By the mid-1880s the only landholdings within the Hōteo River catchment that remained in Māori ownership were Puatahi and Maungakura blocks, located near the river mouth.

[420] The Assessment described the way that referring to the names of the rivers, the maunga and the resources provides links to spiritual associations with the Hōteo. It cites Mr Richard Nahi's description of this:[145]

> The spiritual significance and meaning around these names give substance to the tribe. So we are talking about several hapū tribes that lived between the Hōteo mouth right up to the end of the Hōteo River then streaming out over to the Ngāti Manuhiri, Ngāti Wai side in terms of their association and how they used these particular resources. These names plus all the other names that we have, where the Dome and where this dump is going to be, this landfill, if they [WMNZ] knew anything about the meaning of these particular names there is a significant reason why it [the landfill] shouldn't go there… We are just talking about names, we're not talking about significant pā sites or arakai or where these particular areas were but using the Hōteo River as a means to plant their food, to water their plants etc… Murdoch managed actually track and find these particular places to be able to name them. And when we aligned them we found that all of the places that we know aligned with what he had. So the integrity of his

[145] Cultural Values Assessment, Mr Mikaera Miru (Te Rūnanga o Ngāti Whātua), dated 21 October 2020, at p13.

mapping and what we knew aligned.

Te Uri o Hau

[421] Te Uri o Hau was formally acknowledged by the Crown in 2000, in recognition of the alienation of Te Uri o Hau from their native ancestral lands and loss of their natural resources dating back to 1845. In 2002, the Crown accepted Te Uri o Hau grievances through the ratification of the Te Uri o Hau Claims Settlement Act 2002, legally formalising Te Uri o Hau Settlement Trust.

[422] The Te Uri o Hau statutory area embraces areas northeast of Wellsford, east to Te Ārai Point taking in the Mangawhai Heads to Bream Tail, then north west to Pikawahine (south of Whāngarei), across to Mahuta Gap on the West Coast, south to Poutō and across the Kaipara Harbour entrance south to Ōkahukura and Taporapora. Te Uri o Hau rohe includes the Mangawhai and Kaipara Harbours and the marine and coastal areas extending to the outer limits of the Exclusive Economic Zone (as defined in the Territorial Sea, Contiguous Zone, and Exclusive Economic Zone Act 1977).

[423] It includes upper reaches of the banks of the Hōteo. They also used and traversed the Hōteo past the Site to reach the Kaipara.

Areas of interest

[424] At the commencement of the hearing, all iwi interests were aligned and the parties were united in their opposition to the landfill. As described, that changed part way through the hearing, when MKCT reached agreement with Waste Management and withdrew its opposition. Until then, the definition of the rohe of each group was not an issue. Their respective rohe did come into focus following the MKCT agreement, and we heard evidence on that.

[425] As previously described:

(a) Ngāti Whātua is the primary iwi occupying the area north of the Tāmaki River. Ngāti Whātua also say that the landfill lies within the traditional rohe of Ngāti Whātua;

(b) MKCT drew our attention to:

(i) the Ngāti Manuhiri Deed of Settlement Schedule: Documents (**Documents Schedule**), which set out Ngāti Manuhiri's area of interest, areas over which cultural vesting and other redress (including statutory acknowledgements)

were obtained, and an area over which Ngāti Manuhiri has exclusive rights of first refusal over all Crown land;

(ii) the Ngāti Manuhiri Deed of Settlement formally recognised its rohe or area of interest. It has Right of First Refusal over land around Tohitohi o Reipae and the headwaters of the Hōteo. Ngāti Manuhiri's rohe is non-exclusive, and overlaps with those of its neighbours;

(iii) statutory acknowledgements, whether they are coastal or relate to areas set out in the Deed of Settlement: Attachments (**Attachments Schedule**), are wider than the river and relate to the statutory area in which the river exists. To the extent that they relate to the river, they include the bed and the waterway. That does not, however, limit the statutory acknowledgement to be confined between the banks of the river;

(iv) the Documents Schedule also provides clarity that the acknowledgement applies to the area set out in the Attachments Schedule. So while the connection to the area might be highlighted by the river, the statutory acknowledgement in itself applies to the area;

(v) the Attachments Schedule also sets out an exclusive Right of First Refusal area. Within this area all lands currently held in fee simple or vested in the Crown, including all conservation lands and reserves, are subject to a statutory encumbrance in favour of Ngāti Manuhiri, which provides some restrictions on disposal;[146]

(vi) their boundary is the Tarakihi rapids, set by their tupuna Te Kiri. Whether a traditional and contemporary boundary between Ngāti Whātua and Ngāti Manuhiri lies in the Hōteo at the Tarakihi rapids, Wharepu, or another location should be determined by the extant Māori Land Court proceedings;

(c) Ngāti Whātua Ōrākei and Te Uri o Hau say:

(i) The Ngāti Whātua Ōrākei Deed of Settlement settles the historical claims of Ngāti Whātua Ōrākei. It sets out the areas of interest, specifies the cultural redress, and the financial and commercial redress, to be provided in settlement to the governance entity that has been approved by Ngāti Whātua Ōrākei to receive the redress.

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[146] Ngāti Manuhiri Claims Settlement Act 2012, s 112 and s 111.

(ii) Part 1 of the general matters schedule provides for other action in relation to the settlement with provision for further redress to be provided through the Tāmaki Makaurau Collective Deed.

(iii) The Deed, among other things, acknowledges that a Right of First Refusal over land in Tāmaki Makaurau will be provided in the Tāmaki Makaurau collective deed.

(iv) Te Uri o Hau Deed of Settlement formally recognises its area of interest and provides an apology, financial, commercial and cultural redress specified in Sections 6, 7 and 4 and 5, respectively.

(v) Section 8 of the Deed grants Right of First Refusal property rights in the Right of First Refusal area, but this does not include the Site as it is privately owned.

(vi) Statutory acknowledgement of Te Uri o Hau's special association with the statutory areas being Pouto Stewardship Area, Oruawharo River Stewardship Area, Mangawhai Marginal Strip and that part of Pukekaroro Scenic Reserve not vested in Te Uri o Hau.

(vii) Acknowledgement of special association with the coastal areas being the Kaipara Harbour and its tributaries and the Mangawhai Harbour. This would include the Hōteo River.

(viii) The provision for Protocols with various Ministries and the appointment of Te Uri o Hau governance entity as an advisory committee to provide advice to the Minister of Fisheries on all matters concerning the utilisation, while ensuring sustainability of fish, aquatic life and seaweed within Te Uri o Hau Fisheries Advisory Area.

[426] Mr Enright submitted that, in terms of s 6(e) Mr Nahi's evidence identifies sites of significance that demonstrate the whakapapa of Ngāti Whātua to the receiving environment affected by the landfill, and that must be recognised and provided for.

[427] In reference to the landfill area, Mr Hohneck for Ngāti Manuhiri said:[147]

> That there are no – I mean a failure to engage is not a fatal flaw in itself as those guidelines for the ecology sort of make out. But the failure to engage could mean that

[147] NOE, 6- 28 April 2023, p545, lines 9 - 14.

> a fatal flaw is not revealed in terms of specific wāhi tapu or urupā or those sorts of things. There are no urupā, there are no such things on the site.

[428] The Treaty settlement framework is non-determinative of mana whenua status or rohe boundaries. The Crown agrees that it does not establish mana whenua status through legislation. Ms Margaret Kawharu (Ngāti Whātua) accepted the heartland approach to ahi kā, where a rohe is exclusive, but also identified the relevance of all the land areas (where occupation was unlikely) and that the question of shared interests may arise. Mr Wilcox provided Ngāti Whātua tikanga on the whakapapa/creation belief for the Hōteo catchment, directly adjacent to the landfill site.

[429] Mr Enright submitted that there is some question as to the weight that may be placed on the area of exclusive Right of First Refusal identified in settlement legislation for those hapū that have settled with the Crown. Such rights only relate to Crown land, not privately owned land, so cannot establish a rohe (let alone an exclusive rohe) over the subject site. Other indicia (such as whakapapa, marae, urupā, conquest, ahi kā, karakia, whakatauki and waiata) are plainly relevant. To the extent that witnesses referred to reciprocal duties under whanaungatanga (such as Mr Wilcox in relation to Tohitohi o Reipae), Ngāti Whātua reserved the ability to act to protect their taonga.

[430] Kahurangi Dame Naida Glavish refers to this protection in her evidence for Ngāti Whātua saying granting the application would have a significant impact on cultural values and the physical and practical expressions of them as part of their Ngāti Whātua tikanga and kaitiakitanga.[148]

> A Landfill in this location breaches tikanga, given the vulnerability of Papatūānuku and the waters that flow through her…

and[149]

> … so any mishap in the river will eventually make its way down to the harbour. Not only are we protectors of the river, we are protectors of the harbour that that river runs into. And we are duty-bound, it's not that we want an argument with anybody. We are duty-bound. I am duty-bound to do it for my mokopuna and the unborn Ngāti Whātua child.

[431] The Crown (which entered an appearance at an interlocutory stage on only this issue) agrees that mana whenua status is not created through legislation. Mr Alan Riwaka confirmed in evidence that Te Rūnanga has not to date settled their claim in relation to the Mahurangi Block and produced the Claims Map. It is clear in the Settlement Deed and other documents before us that a central grievance in this area was the way in which the Mahurangi Block was acquired and distributed. This block includes the site.

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[148] Will say SoE Kahurangi Dame Naida Glavish, dated 6 May 2022, at [32].
[149] NOE, 3 April 2023, p22, lines 26-31.

Mr Enright submitted that it is not obvious that any discussion or agreement on exclusive Right of First Refusal areas for the purposes of Crown landholdings applies more widely.

[432] In summary, Mr Enright submitted that there is an obvious difference of view as to where the line is drawn for the rohe between Ngāti Whātua (as a collective iwi perspective) and Ngāti Manuhiri. He submitted the Court may not need to make a factual finding on this issue because the downstream effects of the landfill on Ngāti Whātua relationships, beliefs and values are uncontested, as is the significance of these values. Alternatively, Te Rūnanga and Ngā Maunga Whakahii maintained their assertion on the issues of rohe and mana whenua, and relied on the evidence of Kahurangi Dame Naida Glavish that the collective Ngāti Whātua rohe includes the landfill site. He submitted that a substantial body of evidence supported this position.

[433] The nature of the Right of First Refusal area referred to is one of exclusivity in favour of Ngāti Manuhiri and is identified in the Claims Map.[150] As discussed above, that area is an agreement between the Crown and Ngāti Manuhiri and is for Right of First Refusal purposes. We do not understand such areas to apply more widely than the area that is reflected in the Ngāti Manuhiri Deed of Settlement. It does not include the Site. Given the Right does not apply to the Site, we conclude it is not necessary to resolve conflicting claims.

[434] As discussed earlier in this decision, tangata whenua parties were clear in their position that it is not the Crown or this Court that determines mana whenua status. Although Treaty settlements can be indicative of mana whenua, they do not in themselves establish mana whenua. Mr Pou in closing submits that as iwi achieve settlements these are not the source of mana whenua. As Mr Hohneck notes, this Court process is not the source of mana whenua. The resource consent is not a source of mana whenua.[151] We accept these submissions.

[435] Having said that, and as discussed earlier, we also understand that no tangata whenua party disputes that Ngāti Whātua has the right to act to protect their taonga. Ngāti Manuhiri assert that the Site is within their rohe. We acknowledge the difference of view as to where the line is drawn for the rohe of Ngāti Whātua (from a collective iwi perspective) and Ngāti Manuhiri. We do not need to make a factual finding on this issue because, as Mr Enright submitted, the downstream effects of the landfill on Ngāti Whātua relationships, beliefs and values are uncontested, as is the significance of these values.

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[150] Exhibit 45, Map SO 442891, p3.
[151] NOE, 27 April 2023, p546, lines 25 - 31.

Tangata whenua issues

[436] A central cultural concern raised by all mandated tangata whenua groups is their concern about breaches of tikanga by Waste Management. They raised the lack of engagement and consultation with them prior to the site being selected as a fundamental flaw of the process. Tangata whenua were aligned in their concerns about the potential adverse effects of the landfill on the mauri of Papatūānuku, the awa and the moana, natural ecosystems and the flora and fauna, including taonga species such as the mokomoko|lizards, skinks, pekapeka|New Zealand long-tailed bat and pepeketua|Hochstetter's frog.

[437] While MKCT subsequently supported the proposal, they maintained their original evidence relating to the breach of tikanga. Their position was that the breach has now been addressed to their satisfaction, not that it did not occur.

[438] Tangata whenua also identified that the construction and operation of the landfill has the potential to adversely impact on the mana of tangata whenua as their ability to exercise kaitiakitanga would be compromised, as would their relationship with their ancestral lands, water and other taonga. In part, the MKCT position changed because of agreement to involve Ngāti Manuhiri more directly in the kaitiakitanga relationship with the Site.

[439] This was reinforced in Ngāti Whātua's opening submissions; granting approval will not protect Ngāti Whātua's relationship with their ancestral lands, waters and Kaipara moana. Ngāti Whātua submit it will be a failure of their reciprocal duty of care, arising from whakapapa and kaitiakitanga, to Hōteo and Kaipara moana, which have taonga status as living beings, as well as taonga status as habitat for indigenous flora and fauna. They said the proposal is inconsistent with the health and wellbeing of freshwater, Te Mana o te Wai.

[440] Tikanga was described as being at the heart of assessing the proposal. In tikanga, context is everything. Kahurangi Dame Naida Glavish confirmed that *culture and reo is evolutionary. Tikanga is infinite.*[152] In the following parts of the decision we address various tangata whenua concerns. While they have been separated for the purpose of our decision, we accept that they are inextricably linked to one another.

[152] NOE, 3-5 April 2023, at p21, lines 13-14.

Failure to engage

[441] Ngāti Whātua argue that the failure by Waste Management to engage with Ngāti Whātua iwi and hapū likely to be affected by the proposed landfill before purchasing the landfill site was a breach of tikanga. They submitted that was a deliberate strategy. The requirement for consultation became a condition subsequent (not precedent) of OIO approval to be assessed through the resource management process.

[442] Mr Enright tells us that tikanga is contextual and may be iwi and hapū-specific. The lack of engagement shows Ngāti Whātua has not been acknowledged in the proper context within their rohe, with 35 marae and 19 hapū from coast to coast. This lack of acknowledgement is deeply offensive to the iwi and hapū and negatively impacts on their relational values and kaitiaki responsibilities with their ancestral tribal lands, waters, wāhi tapu and taonga.

[443] Ngāti Whātua Ōrākei and Te Uri o Hau also cited a breach of tikanga around the lack of engagement by Waste Management. Ms Haazen told us that:[153]

> Tikanga is incorporated by reference as well as now being a body of law unto itself which runs in parallel to the RMA. In this case the breaches of tikanga are not inconsistent with other failings such as the failure to consult and the consequences of that decision being the wrong site, site selection being fatally flawed …

[444] Despite MKCT's settlement with Waste Management, it is clear that they do not assert that there was never any breach of tikanga. As set out in the following paragraphs, they consider the breach has been addressed to their satisfaction. Whereas Ngāti Whātua and the other appellants are still saying there was a breach of tikanga that, from their perspective, has never been repaired.[154]

[445] Mr Hohneck explained in his second brief of evidence that, initially when MKCT concerns were raised with Waste Management, they did not feel they had been properly engaged with and they felt the engagement had been shepherded – especially given that it occurred after the site had been selected and OIO approval obtained. In short, MKCT felt that it was a box to be ticked. However, once the hearing commenced MKCT felt the engagement changed and that the questions it was asking were, for once, being responded to. We also heard MKCT made the decision to engage proactively with the new leadership of Waste Management.

[446] We reiterate that this hearing was delayed so tangata whenua parties could engage with Waste Management. Extensions were sought, including from MKCT, Ngāti

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[153] Ngāti Whātua Ōrākei and Te Uri o Hau, closing submissions, dated 19 March 2023, at [47].
[154] NOE, 3 – 5 April 2023, p15, lines 25 – 34.

Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau to allow continuing discussions.

[447] Ngāti Whātua and Ngā Maunga Whakahii's closing submissions reiterated the breach of tikanga in Waste Management's failure to engage prior to the purchase of the site. They believe this breach of tikanga was compounded by Waste Management's selection of the wrong site. They reinforced that the proposal (if approved) would result in significant adverse effects to Ngāti Whātua relational and other values with their ancestral lands, waters, wāhi tapu and taonga. We note that Mr Wilcox, for Ngāti Whātua, was engaging with Waste Management in 2016, suggesting a possible site (W5 - Woodhill).

[448] Mr Pou submits that in terms of the MKCT approach to the breach of tikanga and the boundaries of shared interest areas, Ngāti Manuhiri have read the *Ngāti Whātua Ōrākei* High Court decision[155] where Mr Pou suggests the decision says: *It's up to Ngāti Whātua o Ōrākei to assert their tikanga and say what those things are*.[156] Mr Pou said that MKCT agrees with that declaration, so to the extent that the evidence as it currently sits does that this Court has that in front of it. Mr Pou said:[157]

> In terms of the tikanga that we said, yes there were infringements on the tikanga because of the absence of engagement at the start, as you are correct, their [has] been some forgiveness and, you know, tikanga is breached, not necessarily all the time, but just because tikanga has been breached in the past doesn't mean that it can't be fixed up.

[449] Mr Pou submitted that it is important to ensure that tikanga is not constructed and applied in a way that allows for an arbitrary creation of a veto. He noted that while it is accepted that it is for tangata whenua to describe effects on them and how those effects ought to be appropriately addressed, care must be taken to ensure that there is a connection between what is being described and the actual effect. He said that a response to an application cannot just be that *it is impacting on my wairua* and therefore it has to be declined.[158] He took care to acknowledge Ngāti Whātua's concerns, however.

[450] Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau, throughout the Hearing, have been clear that the lack of engagement by Waste Management has been a breach of their tikanga, and the collective Ngāti Whātua parties' evidence presented at Te Hana o Te Ao Marama confirmed that they thought the wrong site had been chosen, through the wrong process. Having heard the evidence, we consider that, for Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau, the breach of tikanga in terms of lack of engagement still remains. We accept that for MKCT this breach of tikanga has been repaired.

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[155] *Ngāti Whātua Ōrākei Trust v Attorney General* [2022] NZHC 843 (HC).
[156] NOE, 3 – 5 April 2023, p16, lines 10 – 15.
[157] NOE, 3 – 5 April 2023, at p16, lines 13 – 20.
[158] NOE, 27 April 2023, at p551, lines 30-35 and p552, lines 1-5.

Movement of paru/waste

[451] A common theme regarding adverse cultural effects was the opposition to the movement of paru|waste from one rohe to another. Waste is to be moved from Auckland to the landfill Site, and according to tangata whenua it is offensive to move waste from rohe to rohe without the consent of the receiving iwi or hapū.

[452] Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau have marae and urupā downstream of the Hōteo, and notwithstanding any boundary issues the iwi and hapū find it offensive to have a landfill upstream of their significant wāhi tapu and marae.

[453] Mr Pihema for Te Uri o Hau reinforced that this is an offence, giving evidence that the concept of a *mega-dump* is offensive to most humans but strikes at the heart of their relationship with Papatūānuku. Mr Pihema advised us it is takahi (abhorrent) to his mana and the mana of the taiao. Even if the tip were to register a minimal or no amount of seepage, the fact remains that it is an unwelcome addition and will always pose a risk to the health and wellbeing of their waterways, taiao and people.[159]

[454] Kahurangi Dame Naida Glavish gave evidence that Ngāti Whātua tikanga is to avoid mixing what is sacred with what is profane:[160]

> In gathering our kai, we do not want to be connected with Auckland's landfill, whether physically, or spiritually. Our whakapapa connects us to the Hōteo and Kaipara. These are living beings to which we are connected. Any harm, or indignity, to our ancestral water bodies harms us equally.

[455] When asked about potential adverse impacts of the landfill on the Hōteo, Kahurangi Dame Naida Glavish confirmed that:[161]

> in my respectful opinion, yes there will be. There will be. And that adverse [impact] has already shown today what that would be (that is, the mauri of the trees around it and the loss of the birds). The mauri of the manawa in the Hōteo River at the moment it's already got an adverse effect in it. And I know it's not entirely from Waste Management…

[456] It was evident to us that whether there was any actual or real impact on the Hōteo or the Kaipara, a landfill upstream of iwi and hapū taonga is culturally offensive.

[457] Although MKCT no longer oppose the landfill, Mr Hohneck did not resile from his evidence on their cultural concerns. He says that these concerns have been addressed following the agreement between MKCT and Waste Management. In response to questions, Mr Hohneck made it very clear that everyone's wish was that the landfill could

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[159] EIC, Mr Joe Pihema, dated 1 May 2022, at [24]-[25].
[160] Will say SoE, Kahurangi Dame Naida Glavish, dated 6 May 2022, at [30].
[161] NOE, 3 – 5 April 2023, p36, lines 28 - 32

possibly be in a better location and that location was searched for during the hearing adjournment but wasn't found. Consequently, the landfill location ended up being back in the rohe of Ngāti Manuhiri. As a result of not finding an alternative site, Ngāti Manuhiri then put pressure on Waste Management in and around the conditions and the mitigation.[162]

[458] Mr Hohneck continued, saying Ngāti Manuhiri had to deal with the rubbish and the waste coming out of Auckland:[163]

> … so the price that you pay is that you have to actually get together with the right strategic relationships and people and deal with it and try and mitigate it and be resolute in that.

[459] Responding to questions from Mr Enright, Mr Hohneck added that MKCT were still concerned about the total area and the landfill itself, adding:[164]

> … if Māori manage it, well then we can manage it possibly in a Māori way. Who best to identify what we have to do than Māori ourselves? Or do we sit back and leave it for – just moan about it, do nothing, don't be pragmatic, the landfill, the rubbish has to go somewhere, the landfill has to go somewhere. So, like all Māori and all rohe right across the motu that have landfills, we have to actually work the best we can to actually uphold the best outcomes. That's my view.

[460] In mid-January 2023, MKCT advised the Court and the other parties that it supported the grant of consent, and that it considers that the cultural effects of the proposal of concern to it (including the movement of paru|waste) can be addressed through the agreed measures, subject to some further minor refinement of the consent conditions and review of the draft management plans, which MKCT will immediately engage with Waste Management about. From MKCT's perspective, the cultural concerns of Ngāti Manuhiri can be addressed in this way.

[461] MKCT's Heads of Agreement with Waste Management notwithstanding, from the evidence presented to the Court it was clear that the movement of paru|waste from one rohe to another was of concern for all tangata whenua. However, adding to that concern was that the paru|waste was going to the proposed landfill. For tangata whenua these two issues appear to be inter-linked in that, in considering one cultural effect (the movement of paru|waste) you must also consider the other cultural effect (the breach of tikanga in relation to site selection).

[462] In closing submissions, Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau confirmed that, their view was still that having identified that the site of the proposed

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[162] NOE, 6 – 28 April 2023, p553 lines 22 – 27.
[163] NOE, 6-28 April 2023, p190, lines 7 – 13.
[164] NOE, 6- 28 April 2023, p187, lines 15 – 23.

landfill was the wrong site the effects cannot be addressed retrospectively.

[463] In closing, Ms Haazen says that addressing one Māori group's interests cannot be said to address another's concerns. We accept that proposition. Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau have been consistent throughout the hearing in their opposition to the movement of paru|waste and the proposed siting of the landfill, and as such, we find that for these parties the breaches of tikanga remain.

Mauri

[464] One of the primary concerns of tangata whenua was the potential adverse effects of the landfill on the mauri of Papatūānuku. As we understand the evidence, all things living, spiritual and inanimate have a mauri or life force, and mauri is not just physical but spiritual. Many elements of the landfill contribute to adverse effects on the mauri of the area, i.e. the movement and placement of paru|waste. There are also effects resulting from construction of the landfill – in sediment; reclaiming streams impacting native species and risks – particularly from leachate escape. We deal with those other matters later in this section.

[465] Mr Miru, in Ngāti Whātua's Cultural Values Assessment, says of mauri:[165]

> …when you go to a special area you can feel the mauri of that area, its life force, like waves upon the sand. Mauri therefore, as with all our cultural values, is of great significance to Ngāti Whātua.

[466] As discussed in other parts of this decision, it was acknowledged that the mauri of the Hōteo and the Kaipara is already degraded, and that any additional pressure on these taonga would have significant adverse effects on ecological and cultural values. These additional pressures and potential effects are identified in the Cultural Values Assessment: [166]

> The mauri of our earthmother Papatuanuku will be violated by the placement of millions of tonnes of paru into her body. The mauri of the native forest and all the native species therein will be obliterated by the removal of the forest and relevant waterways. The mauri of the wetlands, waterways and all of Tangaroa's children that dwell within the landfill area will be decimated by the complete reconstruction of the environment, which includes the destruction of 14 kilometres of waterways. The mauri of several species in the area, such as Hochstetter's frogs and longfin eel, border on the verge of extinction. The mauri of the sea grass forest at the mouth of the Hōteo, which is already seriously depleted, will be decimated by leachate. The mauri of the children of Tangaroa within the Kaipara moana - kanae (mullet), kahawai, pioke (dogfish), araara (trevally), patiki (flounder), tamure (snapper), mango (shark), kutai (mussels), tio (oysters), tipa (scallops), karahu (mudsnails), toheroa, tuatua, pipi, tuangi (cockles), pupu, and papaka (crabs) - which is already seriously diminished, will be

[165] Cultural Values Assessment, Mr Mikaera Miru (Te Rūnanga o Ngāti Whātua), p17
[166] Cultural Values Assessment, Mr Mikaera Miru (Te Rūnanga o Ngāti Whātua), p22.

> decimated by leachate. Through current land management practices over 700,000 tonnes of silt currently flow into the Kaipara every year. The applicant has given no guarantee that the landfill liner will not breach there is not guarantee that siltation will not find its way down the Hōteo and into the Kaipara. The setting down of the rāhui is to protect the mauri of Papatuanuku, Ranginui, Hōteo awa, Kaipara moana and all the children of Tane, Haumia-tiketike, Rongo-ma-Tane and Tangaroa that live within this environment.

[467] Mr Nahi, for Ngāti Whātua, described the spiritual dimension behind Ngāti Whātua opposition to the landfill: [167]

> For me, it is explained already in our whakapapa. But in simple terms, we revere our Mother Earth, including all her waterways. The Hōteo and Kaipara are living beings, in the same way that we are living beings, with mauri or life-force. They can be healthy, or unwell. The signs are both obvious and hidden. When we cannot gather kai, drink from our awa, bathe in our streams, these are all obvious signs of unwellness.
>
> We do not separate the physical and the spiritual because these are inter-related. We know from our tikanga that mistreatment of the Hōteo and Kaipara affects us in turn, both physically and spiritually. We are downstream of Auckland's paru, from the rohe of many hapū in the wider Tāmaki Makaurau.

[468] Mr Edward Ashby's evidence outlined the acknowledgement by the Crown of the kaitiaki role of Te Uri o Hau , in The Te Uri o Hau Claims Settlement Act: [168]

> The whaikorero (oral history) of our tupuna from of old and now honoured by each generation thereafter places the utmost importance on the role of Te Uri o Hau as kaitiakitanga (guardians) for all the life forms of the environment. Te Uri o Hau have always believed that the environment, including all indigenous species of fish, flora, and fauna alive, is inter-related through whakapapa and all is precious to Te Uri o Hau. All species are important and all play their particular role within the environment.
>
> The integration of all species in the environment is woven within the holistic pattern of life itself. Te Uri o Hau as a people are part and parcel of the environment itself.
>
> Te Uri o Hau recognise that any negative effects on one species may cause ill effects for other species. Te Uri o Hau continue to maintain a kaitiaki (guardian) role to look after all species within our environment. The mauri (life force) of all species is important to Te Uri o Hau, the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All species of the natural environment possess a life force and all forms of life are related.

[469] The concerns over the adverse effect on the mauri of Ngāti Manuhiri taonga and taiao, and the Hōteo River and the Kaipara Harbour were also expressed by Ngāti Manuhiri. We heard evidence from Mr Hohneck that, as a result of the Heads of Agreement with Waste Management,[169] MKCT is now supporting the proposal. The commitments that allow for Ngāti Manuhiri to care for the whenua into the long term

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[167] Will say SoE, Mr Richard Nahi, dated 5 May 2022, at [11] and [12].
[168] EIC, Mr Edward Ashby, dated 29 April 2022, at [22].
[169] Exhibit 52, Heads of Agreement – Auckland Regional Landfill, 22 December 2022.

were initially described as:[170]

> (a) development of cultural indicators for the Digital Dashboard for the whenua and awa within Ngāti Manuhiri's rohe.
>
> (b) more generally, input into the finalisation of the consent conditions and management plans by Ngāti Manuhiri, including in particular where these relate to the Ngāti Manuhiri's taonga species and cultural values on the site and surrounding environment.
>
> (c) partner with Waste Management for the relocation of taonga species into the predator-fenced sanctuary at the Wayby Valley site, or elsewhere should that be an option agreed by Ngāti Manuhiri.
>
> (d) work with Waste Management on the monitoring on site on an ongoing basis, including ecological, sediment, stormwater and water quality monitoring. This will include the involvement of kaitiaki from Ngāti Manuhiri to feed into this monitoring framework, including in respect of their mātauranga Māori and cultural indicators.
>
> (e) input into the identification of sites for, and working with Waste Management on the undertaking of, the offsite riparian vegetation planting throughout the Hōteo catchment.
>
> (f) onsite cultural input in the lead up — and throughout — the construction and works period, including the cultural induction and training of the workforce working on the site, and the kaitiaki monitoring and opportunities for involvement of members of Ngāti Manuhiri in the workforce on site.
>
> (g) development of measures to reflect and restore the mana of Ngāti Manuhiri in the wider landscape, including the restoration of native flora and fauna, joint opportunities to progress future waste minimisation and circular economy ventures.

[470] In a further statement, Mr Hohneck elaborated on the nature of the agreement with Waste Management:

> (a) a $10 million mechanism [bond] was agreed to be called on if the river was ever exposed to risk;
>
> (b) ultimately, Ngāti Manuhiri will receive the entire 1060 ha of Waste Management's land holdings – once each part of the site is no longer required for landfill or Waste Management's aftercare responsibilities are fulfilled and once all of the Matariki forestry rights expire. Further a final date has been agreed whereby no further applications for consent will be made without Ngāti Manuhiri consent;
>
> (c) the existing houses at Springhill and Izard Price Properties will be made available to Ngāti Manuhiri whanau to live in at $1 per year until they transfer;

[170] Memorandum of Counsel updating the Court and the Parties about the position of MKCT, dated 16 January 2023, at [4].

(d) Waste Management will make a $2 million payment to Ngāti Manuhiri to construct up to six homes on Springhill for Ngāti Manuhiri whanau to live in and rent for $1 per year until the Springhill property transfers;

(e) ensure Ngāti Manuhiri will be closely involved in the development, construction, maintenance and running of the ecological and landfilling activities on site, including the predator-fenced sanctuary;

(f) Waste Management have agreed to prioritise Ngāti Manuhiri people for employment;

(g) there will be further work with Waste Management on conditions and outcomes – including the Digital Dashboard.

[471] While some of these agreements would sit outside any consenting process, it is appropriate to record them in this decision as they comprise the reasons for MKCT's change in position. Although the above commitments are Ngāti Manuhiri-specific, Mr Hohneck's evidence was clear in that should this proposal be granted, they would look forward to working with Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau on any committee.

[472] MKCT's settlement can be seen as a way of facilitating Ngāti Manuhiri in the exercise of their kaitiakitanga in a way that has been denied them for over 150 years. Mr Hohneck notes that by being able to move into the landfill area Ngāti Manuhiri will be the first to know if anything goes wrong. It will be their people that signal concern, not to the Council but directly to Waste Management. Mr Hohneck described the effect of this is that they can have their own people living in their tribal lands exercising mana motuhake in a meaningful way as their tupuna Te Kiri always wanted.

[473] They see the agreement as a way in which MKCT can facilitate the increase in the integrity of the Hōteo so that it can once again become swimmable; by working with Waste Management they can enhance their s 6(e) connections with their taonga a Hōteo. To work with Waste Management in the development of a predator fence and pest control are ways in which they can intensify and enhance their relationships with the pepeketua, the mokomoko and the pekapeka.

[474] As to the return of land from Waste Management, Mr Hohneck observed there is nothing tangata whenua seek more than getting their land back and the ability to once again exercise rangatiratanga. That desire is increased when that land was wrongfully taken from the tribe.

[475] He also notes that they can get rid of the forests and replant the area in natives – another opportunity to get back onto their lands and restore their taiao. He records that these lands *were the very lands of Manuhiri that were sold by others*.[171]

[476] He referred to the recent storms (early in 2023) – he thinks that exploitation of the environment has decreased its resilience and ability to deal with the shock of such events. He believes that through the agreement, *we can build on and enhance the resilience of the system as a whole thereby increasing its resilience and its ability to cope into the future*.[172]

[477] They see that no opportunity like that has arrived, nor do they see another opportunity on the horizon, by which they can enhance s 6(e) connections and 7(a) responsibilities. In the absence of the ability to exercise kaitiakitanga over the last 100 years they have been deficient in exercising their obligations to those species which are named as taonga in their Deed of Settlement.

[478] Other Ngāti Manuhiri witnesses, including those for Omaha Marae, strongly opposed the grant of consent. They adopted a position nearly identical to that for Te Uri o Hau and Ngāti Whātua. They essentially agreed with Mr Hohneck's first brief of evidence but did not accept that the breach of tikanga was resolved, or that the new conditions and arrangements overcame their concerns about paru|waste on the site.

Relationships with ancestral lands and sites, the Hōteo and Kaipara moana

[479] Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau, and those Ngāti Manuhiri who gave evidence for themselves or for Omaha Marae say that granting approval:

(a) will not protect their relationships with their ancestral lands, waters and Kaipara moana;

(b) will be a failure of their reciprocal duty of care, arising from whakapapa and kaitiakitanga, to Hōteo and Kaipara moana, which have taonga status as living beings, as well as taonga status as habitat for indigenous flora and fauna;

(c) is inconsistent with the health and wellbeing of freshwater, te Mana o te Wai;

(d) breaches Treaty principles relevant to the resource consent decision-making process, in particular, the active duty to protect the exercise of rangatiratanga and vulnerable taonga; and

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[171] Mr Mook Hohneck speaking notes, dated 12 April 2023, at [42].
[172] Mr Mook Hohneck speaking notes, dated 12 April 2023, at [44] and [45].

(e) these Treaty principles, and the tikanga identified by Kahurangi Dame Naida Glavish and other mandated kaumatua and kuia, are in the nature of bottom lines to protect sacred values and relationships.

[480] For MKCT, the fundamental issue brought to light in this proceeding relates to the dispossession of their lands. The lands that the proposal sits upon were sold to the Crown by a neighbouring Hauraki iwi. The land that Ngāti Manuhiri has been able to hold onto has been through lawful protest and civil disobedience, for which they were punished.[173] But for those injustices and breaches of the Treaty, those lands could still be theirs. The Crown acknowledged in the Settlement Act:[174]

> By around 1900 Ngāti Manuhiri were left virtually landless and that the Crown's failure to ensure that Ngāti Manuhiri retained sufficient land for their present and future needs was a breach of the Treaty of Waitangi and its principles. This hindered the social, economic, and cultural development of Ngāti Manuhiri as a tribe, undermined the ability of Ngāti Manuhiri to protect and manage their taonga, including te reo māori, and their waahi tapu, and to maintain spiritual connections to their ancestral lands. The Crown further acknowledges that this has severely impacted on the wellbeing of Ngāti Manuhiri today.

[481] MKCT said that the burden of infrastructure has historically been imposed on mana whenua and tangata whenua. They claimed that that is happening again, and that repetition of abuse is corrosive to the fabric of Ngāti Manuhiri wellbeing. Mr Pou spoke of Crown regulation of the timber trade in the Mahurangi district, which saw it stripped of the sparse stands of kauri to feed the colony and construct what was then its new capital. He submitted that the evidence of Ngāti Manuhiri speaks to the significant adverse cultural effects to their tikanga, beliefs and relationships between their ancestral coastal waters, lands and taonga. These effects include biodiversity and ecological impacts to taonga, habitats and species.

[482] We were asked to view this exploitation in the context of the apology made by the Crown to Ngāti Manuhiri 10 years ago.[175] In that apology the Crown said:

> …
> (2) … profoundly regrets its breaches of the Treaty of Waitangi and its principles which left Ngāti Manuhiri with few landholdings by 1865. The Crown is deeply sorry for its failure to protect the remaining lands of Ngāti Manuhiri, the loss of which have devastating consequences for the cultural, spiritual, economic and physical wellbeing of Ngāti Manuhiri that continue to be felt today.
>
> (3) The Crown unreservedly apologises for not having honoured its obligations to Ngāti Manuhiri under the Treaty of Waitangi. …

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[173] Ngāti Manuhiri Claims Settlement Act 2012, at s 8(5).
[174] Ngāti Manuhiri Claims Settlement Act 2012, at s 8(13).
[175] Ngāti Manuhiri Claims Settlement Act 2012, at s 9(2) and s 9(3).

[483] We were urged to be mindful of the way in which the land titles within which the proposed landfill is sited were taken from Ngāti Manuhiri, and the treatment that has been inflicted on them in the past in the name of regional development. Treaty settlement policy dictates that only Crown land is available for settlement. Where it has passed out of the Crown's hands, the titles obtained by third parties cannot be displaced and it is therefore unavailable for return to tangata whenua.

[484] Again, Ngāti Manuhiri outside MKCT agree with the historical narration but not the settlement agreed to by MKCT.

Adverse effects on taonga species, Hōteo and the Kaipara harbour

[485] It was common ground that granting consent results in significant adverse effects to Ngāti Whātua o Kaipara, their hapū and marae, and to Ngāti Whātua Ōrākei and Te Uri o Hau. A similar scale of impact was acknowledged for Ngāti Manuhiri.

[486] We acknowledge that the impact of the proposal on these values is not just a physical impact – the impacts include the way in which iwi relate to them, including the exercise of kaitiakitanga and whanaungatanga discussed earlier.

[487] We address the effects of the landfill proposal on the relationship values of habitats, taonga species, the Hōteo and the Kaipara in our section on ecology. The key additional point is that these values represent relationships with key elements of the local environment and their close interconnectedness with the human realm.

Iwi/Hapū Relationships

[488] The change of position of MKCT, from opposition to support, raised concerns during the hearing about how these differing views or positions of iwi and hapū could damage inter-iwi relationships. This includes those witnesses who have ahi kā for Ngāti Manuhiri and Omaha Marae whanau and do not agree with the position of MKCT.

[489] Mr Hohneck was clear in that, while Ngāti Manuhiri interests in the proposal have been settled, MKCT cannot talk for interests or effects on their whanaunga Ngāti Whātua or Te Uri o Hau. They are for them to discuss. He continued, saying that:[176]

> Notwithstanding our current disagreements, our relationship with our whanaunga, I feel is generally sound. Those who would assert that this proposal would ruin this relationship beyond repair have obviously not worked within iwi politics. …

[176] Mr Mook Hohneck, speaking notes, 12 April 2023, at [49] and [50].

[490] During cross-examination, Kahurangi Dame Naida Glavish was asked by Mr Pou if she saw:[177]

> Ngāti Manuhiri as owning the land as being something worse than, for instance, the current Pākehā owning the land?

Her response was: [178]

> Definitely not. Because, and one of the reasons is because we can sit down with Manuhiri at the table, and we can have a good conversation. We can agree to disagree. And often have, but the relationship is still strong.

[491] In his evidence of 19 March 2023, Mr Hohneck refers to Te Uri o Hau: *I acknowledge Te Uri o Hau. They are our relations and our neighbours…we do not always agree on matters, but we work things out and we do so respectfully*.

[492] We heard Mr Hohneck agree with Mr Pihema's evidence in its entirety, informing the Court that *it is up to Ngāti Manuhiri to identify what is tika within our rohe, but we are not the only tangata whenua impacted and it is not only our rohe which is impacted*.

[493] Mr Hohneck signalled that MKCT would be greatly interested in meeting with the rest of the mana whenua of the Tāmaki region to engage with how to best progress Waste Management's agreement to commit to waste minimisation within the region.

[494] Mr Hohneck was clear about what he thought about iwi/hapū relationships saying we know who our whanaunga are and we respect them.[179]

> Notwithstanding our current disagreements, our relationship with our whanaunga that I feel is generally sound, will go on and on and on within the future generations as long as we put down the kōrero right and we teach our future generations on actually who they are.

[495] Considering the evidence and submissions we heard, it was clear the relationships between the tangata whenua are based on shared whakapapa and a common commitment to provide for ecological and cultural values as they related to, among other things, taonga, awa, moana and te taiao. The current work to restore the Kaipara (including the Hōteo), including through the KMR, is a clear example.

[496] What is more complex here is the breakdown between MKCT and the local Manuhiri hapū who maintain ahi kā, and the Omaha Marae. We accept the mandated role of MKCT in resource management matters but this is clearly not supported by the Marae, or witnesses who spoke to us. This breakdown is more problematic for the Court,

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[177] NOE, 3 – 5 April, p32, lines 8-10.
[178] NOE, 3 – 5 April, p32, lines 11 – 16.
[179] NOE, 6 – 28 April 2023, p163 lines 33- 34 and p164 lines 1-3.

and we acknowledge that local Ngāti Manuhiri hapū do not agree with the agreement reached. We can take into account these views, but cannot displace the role of MKCT as mandated authority for RMA matters.

Findings on issues that remain

[497] In assessing the cultural values and the effects on those values we have had regard to Commissioner Tepania's decision. We agree with her analysis of the approach we must take to the evidence on cultural values and effects – that we *must be able to identify, involve and provide for iwi and their mana whenua in accordance with mātauranga Māori and tikanga Māori*.[180]

[498] Referring to the outcomes sought by iwi in order to meet those directives, we must meaningfully respond to the claim that the duty must apply to the tikanga-based claims made by iwi as to what is required to meet those objectives.[181]

[499] Further, we agree that:[182]

> … that duty also requires us to engage meaningfully with the impact of the application on the whanaungatanga and kaitiakitanga relationship between iwi and the natural environment, with their lands, waters, taonga and other significant features of the environment such as Te Awa Hōteo and Kaipara moana: seen not just as physical resources but as entities in their own right – as ancestors, gods, whānau – that iwi have an obligation to care for and protect.

[500] But for the change of position by MKCT and the further proposed conditions, we would have endorsed Commissioner Tepania's decision (and conclusion).

[501] We accept that the area generally is within the rohe of Ngāti Whātua. We also accept that the general landfill Site is within Ngāti Manuhiri rohe – that they maintain an unbroken connection with their rohe exercising their mana through manuhiritanga. While the rohe of Ngāti Whātua and Ngāti Manuhiri overlap to an extent, we find that Ngāti Manuhiri has a more intimate relationship with the landfill Site than does Ngāti Whātua.

[502] This conclusion does not relate to the Hōteo River itself. In that regard, there is clear evidence of overlapping interest, usage and occupation of the river and its margins. We accept that the Hōteo is within the rohe of Ngāti Whātua and Ngāti Manuhiri and Te Uri o Hau – where on the river the exact boundary is between iwi is not agreed.

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[180] Decision of Commissioner Tepania, section 23.4, at [5].
[181] Decision of Commissioner Tepania, section 23.5, at [5].
[182] Decision of Commissioner Tepania, section 23.5, at [5].

[503] We also accept that the Kaipara Harbour generally is within the rohe of Ngāti Whātua Ōrākei, Te Uri o Hau and Ngāti Whātua o Kaipara.

[504] We accept the strength of the relationship that all iwi have with the Hōteo and the Kaipara Harbour – those relationships are both physical and spiritual. They need to be safeguarded.

[505] We accept that iwi have traditionally used the Hōteo for food gathering, but that they recognise that it is now degraded and that those fish that once may have been sourced from the area are no longer there. All recognise the present vulnerability of the Hōteo.

[506] We accept that all iwi find the movement of paru|waste from one rohe and into another offensive and that it impacts their relationship with Papatūānuku; that it is a breach of tikanga.

[507] We acknowledge that all iwi are also concerned that the location of the landfill in the headwaters of the Hōteo River creates an unacceptable risk to the Hōteo River and the Kaipara Harbour - in terms of potential contamination from leachate and contamination from sediment. That risk negatively impacts their relationship with those waters and is a spiritual effect on them.

[508] There are concerns about the effects of the proposal on the mauri of the environment. The evidence was that the mauri is the life force – it is both physical and the spiritual. Iwi believe that a landfill in this area will diminish the mauri of Papatūānuku and all those who rely on her health and well-being. As mentioned, however, all acknowledge the vulnerable and degraded state of the Hōteo River. We acknowledge the specific concerns about the effects of the landfill on taonga species and their habitats.

[509] Finally, we acknowledge the overarching concerns that the landfill's presence may diminish iwi's relationship with their lands, water, sites, wāhi tapu and other taonga and limit their ability to exercise kaitiakitanga and manaakitanga. Together, when expressed by all iwi and hapū in the region, the effects on their relationships are significant.

[510] However, not all iwi and hapū now consider the effects on their relationships will be significant with appropriate conditions and modifications to the proposal.

[511] MKCT[183] (and Omaha Marae) say that there will be adverse effects arising from the landfill, but MKCT is now prepared to accept those adverse effects in light of the

[183] MKCT Settlement Trust is a Post Settlement Governance Entity (PSGE). It has 97.44% support from voters.

benefits it and the wider environment will receive from the agreement with Waste Management. It is also prepared to accept the offence to tikanga that the landfill causes in this location. The agreement will enable it to exercise kaitiakitanga at the landfill, but it sees wider benefits for the integrity and mauri of the Hōteo River.

[512] The question for us, then, is whether MKCT's agreement to the proposal, the benefits it sees to Ngāti Manuhiri and the Hōteo River, are such that the cultural effects of the proposal are less significant than when all iwi and hapū joined as one to oppose the landfill.

[513] That agreement does not diminish the concerns of the remaining iwi – MKCT expressly accepts that. Does it, however, reduce their significance for the landfill Site in terms of the effects that will occur there given Ngāti Manuhiri's greater intimacy with that area? Also, what influence does continuing opposition of local Ngāti Manuhiri and the Omaha Marae have on the MKCT agreement?

[514] We place some weight on MKCT's changed position. The benefits it sees are not insignificant. We also conclude that MKCT's position is based on its conclusion that with proper conditions and direct oversight it can ensure there is no material harm to the Hōteo or the Kaipara.

[515] What we must now do is extend this discussion to consider the effects of the landfill proposal in a physical sense but also measured against the particular cultural values we outlined above. We must also consider whether or not the benefits that Ngāti Manuhiri see for the environment are likely to ensue.

[516] Finally, we need to consider the risks that Ngāti Whātua, Ngāti Whātua Ōrākei, Te Uri o Hau, the Omaha Marae and nearby residents see for the landfill and whether they can be addressed by this proposal.

Landscape and visual

[517] We received evidence from two landscape architects, Mr John Goodwin for Waste Management and Mr Peter Kensington for Auckland Council. We also received evidence from witnesses called by Ngāti Manuhiri, Ngāti Whātua and Ngāti Whātua Ōrākei on their understanding of the landscape. We were also assisted by two cultural values assessments prepared on behalf of Ngāti Manuhiri and Ngāti Whātua. We record that Mr Kensington's evidence largely agreed with Mr Goodwin's evidence addressing the level of natural character, landscape and visual effects.

[518] There are three physical catchments within the Waste Management landholdings that will be affected by the project, being the Eastern Block (site of the landfill), the Western Block (site of the clay borrow pit, main stockpile and topsoil stockpile 1) and the Southern Block (the site of the bin exchange area, landfill access road and topsoil stockpile 2). Within the Eastern and Southern Block streams have very high ecological values and in the Western Block there are high ecological values in the vegetated areas and lower values in the pastoral areas. Within production forestry the abiotic attributes of stream margins are generally modified by previous harvesting, and these areas in the wider landscape context reduce the overall natural character values of these watercourses.

[519] Visual effects of the proposal were assessed, but as this was not a focus of contention we do no more than note that there will be effects, but that they will be seen in the context of ongoing forestry and farming and will be seen together with the proposed revegetation measures.

[520] We recognise that the Hōteo catchment has been modified through a range of activities that resulted in extensive land clearance and drainage for pastoral farming, and more recently, plantation forestry.

[521] Both Mr Goodwin and Mr Kensington accepted that mana whenua hold strong associative values with the land within the Hōteo catchment.

[522] There was little attempt to fuse the assessment of landscape and visual effects with that of iwi's view of the land, water and their values. Having said that, Mr Goodwin provides a helpful overview of the physical and perceptual effects on the landscape of the proposal from his perspective.

[523] The proposed landscape and ecological mitigation measures include:

(a) re-routing the landfill access road to avoid native vegetation clearance within Significant Ecological Areas and Natural Stream Management Areas;

(b) avoidance of effects on identified Outstanding Natural Landscapes (and associated Significant Ecological Areas) by locating the landfill and other activities over 500 m away within a separate catchment;

(c) siting stockpiles and the bin exchange area away from stream margins and areas of indigenous vegetation;

(d) the use of bridges (as opposed to culverts) to reduce impacts on the natural character of watercourses and their margins;

(e) planting native revegetation species (approximately 42 ha) along the cut and fill slopes around the bin exchange area, the main access road, and west of the landfill (around the site roads, buildings, stormwater ponds, wetlands and renewable energy centre) to the Dividing Ridge (which is on the western side of Landfill Valley and broadly separates the forestry from the pastoral activities);

(f) planting adjacent to the roundabout and SH1 to re-establish roadside character and provide screening of the project activities and enhance the existing Significant Ecological Area/native vegetation along the Waitaraire Stream;

(g) planting on the eastern side slopes and along the southern and western ridge tops around the perimeter of the Landfill Valley with quick-growing exotic species to assist in screening and integrating the project works;

(h) the creation of a 126 ha pest free sanctuary;

(i) riparian planting along 8 km of stream margins (49.09 ha) and 5.13 ha of wetland vegetation and enrichment planting.

[524] Other operational measures will be implemented through other conditions of consent and through the Landfill Management Plan to manage offsite landscape and visual effects. They include conditions to avoid light spill and establishment of a series of walking tracks, among others.

[525] The effects of the proposal on natural character were an issue, and Mr Goodwin summarised the existing natural character relying on the ecological assessments that had been made. They provide a helpful physical baseline against which changes can be considered. He recorded that the Waste Management team had divided the landscape into five geographic areas based primarily on a combination of landform, land cover and land use attributes and the activities proposed by Waste Management. Mr Goodwin outlined the present landscape features and natural values of each.

(a) Waiwhiu Block – east of Wilson Road ridge to the Waiwhiu Stream and boundary of the Waste Management landholding. This block does not contain any landfill activities and is to remain as production forestry. Mr Goodwin concluded that as for the Eastern Block and other similar steep gully systems in production pine, the level of natural character of the watercourses is assessed as being low-moderate.

(b) Eastern Block – contains two main north/south oriented ridge and valley systems. These extend from the Dividing Ridge in the west across a valley (where the landfill is proposed) up to the more elevated Wilson Road ridge. Within this

block there are a series of secondary ridges, valleys and small gullies on either side of the main ridges which are currently in plantation pine forest.

The streams within the Eastern Block (during the periods when the forestry land use provides riparian shading) have a high ecological function with limited channel modification and a high in-stream habitat. During forestry harvest activity and in the years following, these ecological values would decrease until the stream systems recover. In terms of experiential attributes, the elements, patterns and processes are quite modified due to production forestry land use and the level of perceived natural character is overall low. Mr Goodwin assessed the overall level of natural character of the water bodies to be low-moderate.

(c) Western Block – extends from the margins of Te Awa o Hōteo across river flats before rising more steeply in elevation on the pasture covered hills to the east to the Dividing Ridge. It contains a number of streams, watercourses and wetlands, some of which have been modified by farming activities while others are fringed by pockets of native and exotic vegetation. Two of the wetlands are identified in the AUP as a Natural Stream Management Area, and are identified as a Significant Ecological Area. This block is to contain the main stockpile, a clay borrow area and topsoil stockpile 1.

It has been modified and is subject to degradation through agricultural land use, but the biodiversity values within the streams are still moderate and the headwaters, in particular, have a high potential for enhancement. The upper part of the southern sub catchment was identified as having very high value and the upper north sub catchment has relatively intact stream systems with an absence of riparian margins contributing to a slightly lower value. In terms of experiential attributes, the streams are within a working pastoral farm with modified biotic elements and degraded stream system patterns. The large southern wetland is of a scale that exhibits a high level of natural character through its observable process and pattern. Mr Goodwin considers the overall natural character values of water bodies to be low due to the dominant farming practices.

(d) Southern Block – a westerly oriented valley (which emanates from the Waitaraire Stream adjacent to SH1) with gullies extending to catchment ridge boundaries to the north (Middle Ridge) and south to Sunnybrook Ridge trees.

Stream characteristics are similar to those in the Landfill Valley, with cascades and waterfalls a feature through the gully. A wetland is present in the lower reaches prior to the confluence with the Waitaraire Stream. Streams within the Southern Block have very high ecological values as they are either within the

Natural Stream Management Area or are connected to it and have high or significant ecological value scores and biotic indices. The streams have good water quality and are largely set within an indigenous vegetative riparian margin and wider landscape context. Mr Goodwin considers the level of natural character of the watercourses to be high.

(e) Waitaraire Tributary Block – comprises the head of a southwest oriented valley emanating from the Wilson Road ridge and is predominantly plantation pine forest. No landfill activities are proposed in this area which is largely covered in plantation forestry.

[526] The catchment for Te Awa o Hōteo comprises 405 km^2, with the predominant land uses comprising pastoral land and exotic plantation forestry. The catchment has been highly modified as forests have been cleared and wetlands drained. The tributary that contains the project footprint is approximately midway down the Hōteo. The ecological values of the Hōteo at the Waste Management boundary are considered to be high. This is based on the presence of the Natural Stream Management Area and Significant Ecological Area overlays, and the presence of at-risk fish species (while recognising the water quality effects from surrounding land uses). The positive experiential attributes of the river margins are evident from adjacent and surrounding roads. Mr Goodwin considers the Hōteo has a moderate level of natural character.

Assessment of changes

[527] Mr Goodwin concluded:[184]

> 8.64 The loss of 14km of stream habitat, within the Eastern, Western and Southern Blocks of the Waste Management property will adversely affect the existing biophysical and experiential attributes of these elements and their patterns and processes and reduce the level of natural character within and in the immediate context of these water bodies.
>
> 8.65 An Effects Management Package has been developed to address the effects on these and other attributes and values within the landholding. This will include 5.31ha of wetland planting, and 45.09ha of stream margin riparian planting along 17km of stream length. These elements are to be fenced from stock and protected in perpetuity, along with the establishment of a pest exclusion fenced area to be protected as a habitat sanctuary for stream, wetland and terrestrial species. Furthermore, additional stream and riparian protection and enhancement outside the landholding but within the Hōteo catchment is proposed which is likely to amount to as much as 57km of stream length.
>
> 8.66 When the impacts on the elements, patterns and processes are considered in relation to the attributes of the streams and wetlands, and the land use and landscape character of the wider landholding, along with the proposed mitigation and enhancement measures, in my opinion the existing level of

[184] EIC, Mr John Goodwin (Landscape and Visual), dated 11 February 2022, at [8.64]-[8.66].

> natural character will be retained and over time potentially noticeably improved.
> Footnote excluded

[528] What is noticeable is that this analysis does not touch upon the Cultural Landscape of this area or the landfill Site, notwithstanding that the Landscape Assessment Guidelines (Te Tangi a te Manu) require that it do so.

[529] Again, this confirms our view that in terms of the objectives and policies the landscape evidence assumes there is no adverse effect from contaminants reaching the Hōteo or other streams. Moreover, in respect of the biophysical effects of the activity those are clearly identified in this evidence together with others. There are a number of steps being taken, which we have identified. The adequacy of those is a matter of judgement. Again, we must be satisfied that these would adequately avoid, remedy or mitigate the activity or alternatively, depending on the issue yet to be addressed, offset or compensated.

Air quality

[530] The emission of odour from the proposed landfill was of particular concern to Fight the Tip. A number of residents living close to the proposed facility expressed concerns in relation to odour effects, including those identified as sensitive receptors in the evidence provided by Ms Simpson for Waste Management (air quality).

[531] The residents' concerns relate to the amenity of their properties. Some are retired and spend much of their days at home. They were concerned that the outdoor activities they presently enjoy, such as gardening, walking, hosting weddings, eating outside, entertaining, camping, hunting, bike riding, horse riding, kayaking, archery and swimming would also be potentially impacted by odour discharge from the proposed landfill.

[532] Many commented that they sleep with their windows open and/or have their windows open during the day in the summer and warmer months – some through winter as well. Residents commented that they do not currently experience any unpleasant odours and enjoy the smell of their freshly cut lawns/hay, trees and flowers as well as the fresh air.

[533] Other concerns included effects on tank water and contaminants in the air.

[534] Fight the Tip summarised its concerns as:

(a) the effects of odour on surrounding residents;

(b) Waste Management's compliance history in relation to the operation of landfills and management of their effects and whether various assumptions expressed by Ms Simpson (air quality expert for Waste Management) will be achieved; and

(c) the Council's ability to effectively monitor and enforce compliance.

[535] Two air quality experts were called and provided evidence, Mr Paul Crimmins for Auckland Council and Ms Simpson for Waste Management. They conferred and provided a joint witness statement. The joint witness statement recorded that the experts were generally in agreement and the outstanding issues related to the wording of specific conditions.

[536] The witnesses acknowledged that while there may be detectable odours from time to time beyond the site boundary, there is a very low risk these events would be offensive or objectionable. Waste Management argued that these effects are largely avoided by large buffer distances between the Landfill Footprint and neighbours and are further mitigated by management procedures like provision of a cover over the entire working face at the end of each day and that a working surface of the daily waste will be kept within stated size limits to minimise the area of exposed waste. The witnesses also agreed that concentrations of airborne contaminants from dust and landfill gas generation combustion will be well within ambient air quality standards and guidelines at residential dwellings, and will not cause exceedances of any NES-Air Quality values beyond the site boundary.

[537] We note that Waste Management provides a buffer of greater than 1 km from the nearest receiver, which is recorded in the proposed conditions. While the conditions require that there be no odour of a noxious, dangerous, offensive or objectionable effect beyond the boundary of the Site, Fight the Tip had serious reservations about effective monitoring of odour coming from the landfill, especially given the experience of certain residents who lived in the vicinity of the Redvale landfill.

[538] Waste Management proposed an extensive suite of air quality monitoring conditions but Fight the Tip noted that there is no technical method to actively monitor odour, and there are no independent FIDOL (Frequency, Intensity, Duration, Offensiveness and Location) people available to respond to complaints. A key concern of locals is the lack of Council response when odour concerns arise, with reference to experiences at Redvale. They noted that Ms Simpson confirmed that in the Redvale example Council officers did not attend a majority of the odour complaints, and by the time they finally arrived, the odour had either weakened or disappeared. Fight the Tip submissions concluded that if the Court was minded to grant consent, further work would

be required to ensure robust monitoring and enforcement.

[539] Subject to imposing appropriate conditions (as well as reviewing the Management Plan), we are satisfied that any adverse effects of odour can be appropriately addressed.

Noise and vibration

[540] We received expert evidence on noise and vibration from Mr Stephen Peakall for Waste Management and Mr Jon Styles for Auckland Council.

[541] Mr Peakall and Mr Styles conferenced and produced a joint witness statement.[185]

Noise limits

[542] Fight the Tip maintained that the proposed conditions to address noise effects are inappropriate, as they only require compliance with the AUP's noise standards.

[543] It claimed that Waste Management does not need to emit noise to the maximum permitted volume up to the notional boundary of existing houses in order to operate the proposed landfill. It noted that Mr Peakall has estimated operational noise will be far less than that. It said that the noise conditions should be reduced to reflect predicted noise.

[544] As the application is for a non-complying activity there is no particular reason for the Court to adopt the general noise standard, which is to acknowledge that there are general rural activities, this being a Rural Production zone, that would have impacts on the neighbouring properties.

[545] We can see no reason in principle why the noise impacts for the activity should not be internalised. To that end, we consider that the appropriate amenity in the neighbouring properties can be reached if the AUP noise standard is adopted at the boundaries of the 1,070 ha project site. If construction is required near the boundaries, then this would rely on the construction noise level being met at the boundary.

[546] In our view this would address the concerns about an ongoing impact on the use of neighbouring properties by virtue of a 24-hour/day operation on an industrial scale. The same would apply to night-time noise at the boundary.

[547] Given the change to amenity that the proposed landfill will cause in the valley, we consider that condition 228 in its application of stricter night-time noise limits is appropriate.

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[185] Dated 18 May 2022.

Truck access to Wilson Road during construction

[548] The other significant concern that we heard from the parties in relation to amenity was the impact on several residents living on SH1 near the construction road entrance (Wilson Road). One particular home is situated directly on the boundary of the entrance to the private road, and having inspected the site we are satisfied that there would be a significant impact on the amenity of that property.

[549] This would arise from trucks climbing the incline to the ridge immediately next to and behind the house, the potential for vehicles to queue during the construction period awaiting the opening of the gates or if the gates are left unlocked, and the use of the road outside normal operating hours of 8.00 am to 6.00 pm. We acknowledge that a visual screen would not reduce the noise, and constructing a high-enough sound wall would, in our view, be visually intrusive and add to the amenity impact on the neighbours.

[550] The draft Construction Transport Plan sets out the upgrading of the construction road and estimated traffic numbers over the ensuing construction period. In year 1 of construction there will be 76 vehicles per day, and this will reduce as construction progresses to 52 vehicles per day in year 2, 32 vehicles per day in year 3 and 12 vehicles per day over the ensuing three years, by which time the access road and roundabout are expected to be complete.

[551] Once the primary landfill access road and roundabout connection with SH1 are completed our understanding is that the private road will no longer be used. Several other properties on SH1 also indicated their concerns about traffic to and from the site, particularly during the construction period. Dome Valley has been subject to extensive renovation recently but has closed on several occasions due to slips and road collapse.

[552] In questioning from the Court Ms Leane Barry, who lives in the property next to the construction road entrance, confirmed there is plantation forestry on the hills behind her property. It is likely to be accessed via the same side road during harvesting. Such operations may last for several years.

[553] The use of SH1 is to be expected given its status as highway. The issues, as we see them, relate to the use of the side road and potential for vehicles to queue along SH1 if there is a delay on entry, or otherwise create amenity impacts while vehicles are using the access road.

[554] We do not consider that Waste Management has given any real thought at this point as to how it might improve the amenity of the properties on SH1 in the vicinity of the landfill construction access points, or otherwise provide for the clear impact on

amenity over the next 5-7 years as the construction is completed. We acknowledge that once construction is completed this entry will be closed, and that the new bin exchange area to the north will not have the same amenity impacts. We understand that there has been some thought as to traffic management at the side road, and expect to see that in the conditions.

[555] We conclude that appropriate conditions would be needed to resolve this issue, or suitable arrangements made with the resident at this junction.

Traffic and transportation effects

[556] The Warkworth-Wellsford section of the state highway is now consented and our understanding is that most landfill traffic will approach the Site from the north, where an off-ramp is to be situated. Already-high traffic levels through Dome Valley (some 12,000 vpd two-way traffic) are likely to increase as further development takes place to the north of Auckland, but once the new section of the highway is complete our understanding is that vehicle numbers on the Dome Valley Road will decrease considerably.

[557] Two experts provided evidence on transportation effects, Mr Don McKenzie, on behalf of Waste Management and Mr Ian Clark on behalf of Auckland Council. Those experts conferred and produced a joint witness statement.

[558] The main transport issues raised by Mr Clark relate to potential traffic effects associated with trucks arriving at the proposed landfill during peak periods when there is heavy northbound traffic on SH1 through the Dome Valley at times (Friday afternoons being a good example). The concerns relate to both the construction and operational phases. While the effects during the construction phase will be mitigated to some extent by the proposed conditions, there were no conditions that cover traffic issues during the operational phase.

[559] It was therefore agreed that for the operational phase of the proposed landfill new wording should be added to a condition requiring the minimisation of the number of trucks approaching the site from the south on Friday afternoons, until the state highway from Warkworth to Wellsford project becomes operational. Mr Clark also sought that a maximum number of inbound trucks be specified to reduce any ambiguity in the agreed clause. He proposed that typical Friday afternoon truck arrivals should be no more than three per half hour period from 2.00 pm to 7.00 pm on those days. Mr McKenzie opposed the inclusion of that condition, considering that the first amendment will be sufficient to manage the intensity of traffic generation.

[560] We agree with Mr McKenzie but conclude there needs to be some focussed attention on traffic management. This would require that Waste Management monitor traffic as operations continue and, if necessary, decrease movements at busy times.

[561] The witnesses did agree on how to address specific construction-related Friday afternoon traffic issues. Conditions could be drafted that require the operator to minimise the total number of truck movements from construction activities between 2.00 pm and 7.00 pm during Friday afternoons between October and April and any other Friday afternoons immediately prior to any public holiday weekend. Similar consideration should be given to the movement of large machinery items during those periods.

[562] Again, we conclude that further thought needs to be given to operational conditions. One might be that the Landfill cannot commence until the new deviation (Warkworth to Wellsford) is completed. That may be unrealistic given it depends on Government funding. The alternative may be to have more restrictive conditions until the new deviation is completed. This will require further consideration and drafting. Nevertheless, we conclude that with appropriate conditions (and a Management Plan) this issue could be addressed.

Lighting

[563] We understand the extensive lighting proposals of Waste Management. The experts agreed on modified conditions for night operation which Mr Kennedy did not accept.

[564] We conclude that any consent should require lighting at minimal levels and especially to avoid attraction of bats or pests. This would need to be addressed if consent is otherwise appropriate.

Economics

[565] Waste Management called Mr Michael Copeland to give evidence on the potential economic impacts of the proposed landfill. The basic thesis underpinning his effects assessment is that landfills are, and for the foreseeable future will remain, essential infrastructure for the Auckland region, with municipal landfills identified in the AUP as being part of the region's infrastructure.

[566] For that view Mr Copeland relied on the evidence of Mr Kennedy, Mr David Howie (corporate – waste policy) and Mr Purchas (waste regulatory framework), all of whom were called by Waste Management. He relied on their conclusions that, while waste minimisation efforts may become more effective at reducing residual waste,

alternatives to landfilling (for example, waste to energy incineration plants) are not a feasible option for Auckland at this time.

[567] Mr Copeland considers the position that no new landfill capacity will be required for Auckland within the next 30-50 years is unrealistic, noting Statistics New Zealand data implies a 1.1% average annual increase in Auckland Region's population to 2048. The Rodney area of northern Auckland has an implied growth rate of 2.1%.

[568] In forming his view on economic costs and benefits, Mr Copeland analysed the comparative additional economic costs of alternative landfill proposals to the proposed landfill.

[569] We have some difficulty with the table on which Mr Copeland relied, and his conclusions. His analysis did not take into account Waste Management's site selection process, nor have any regard to sites identified by Waste Management that scored higher than did the proposed landfill site. On that basis, we find the assessment of economic benefits based on a comparison of other potential sites to be of limited assistance.

[570] We concluded earlier that demand for landfills will continue in Auckland – even when regard is had to the requirements of the Waste Minimisation Act and the Waste Minimisation Plan. The volumes disposed of each year affect the life of the landfill rather than the ultimate volume it is designed for.

Landfill Bond

[571] Waste Management called evidence from Mr Anthony Kortegast on the purpose of financial bonds. He stated that the underlying intent of a bond is to ensure that sufficient funds are available to deal with acute risks, as well as the costs associated with early closure and post closure costs, and to ensure that funds are secure and available when required.

[572] If the proposal is consented this is a matter we would need to consider further. We note that during the hearing amendments were made to the proposed conditions governing the bond in favour of MKCT and Ngāti Whātua. It would enable them to draw on the bond in certain circumstances. A bond was also offered to secure offsite stream planting. These conditions may require some refinement.

[573] Overall, we consider that a narrow range of risks is being considered with the figures derived, with an estimate of some $11 million at peak – well short of the type of costs we would expect from a landfill being abandoned. However, until the design and conditions are advanced, a figure representing the cost to the Government or ratepayer

of remedial action cannot be finalised.

Geotechnical

[574] Two experts were called addressing geotechnical issues, Mr Tim Coote for Waste Management and Mr Ross Roberts for Auckland Council. Those witnesses conferred and reached agreement on all matters. They produced a joint witness statement. It was agreed that an appropriate level of geotechnical investigation has been undertaken to assess the suitability of the site for the concept design.

[575] Additional geotechnical investigation, ground modelling and design work input will be required to support detailed design. Additional investigation will be needed to confirm volumes of material available onsite for use in the construction of the landfill liner subgrade and cap.

[576] These experts agreed that the site has relatively simple underlying geology and low seismic risk. We have reservations demonstrated by the recent repeated failures on SH1 in the Dome Valley area immediately after considerable upgrade work. Local residents also repeated concerns, pointing to slanting rock formations and springs well up the valley ridges. They suggest the name Springhill where the landfill is proposed to be placed demonstrates local knowledge.

[577] However, Messrs Coote and Roberts are confident that the hazards can be managed. Certain geotechnical hazards and constraints were discussed by the expert witnesses under headings of slope stability, tunnel gullies/tomos, groundwater and seismicity.

Slope instability

[578] Slope instability was identified as the main geotechnical hazard, particularly during landfill construction where landslides could damage the landfill excavation and disrupt the liner and/or drainage system. Historic landslides of varying magnitude have been identified onsite from site investigations and terrain analyses, however none would preclude the site as being suitable for a landfill.

[579] The experts agree that as the landfill is progressively filled, the additional mass at the toe of the slopes will, over time, increase the stability of the slopes so that they are more stable than they are in their natural state. They concur that the risks are able to be mitigated through the implementation of an appropriate level of geotechnical investigation, groundworks design and construction monitoring, to ensure the stable design and construction of the proposed landfill base-grade slopes.

[580] Slope design optimisation and ground strengthening and improvement works will be required in specific areas. The experts agreed that the measures required to manage the risks posed by potentially unstable slopes during construction are within the bounds of normal engineering practice in New Zealand.

[581] During our site visit and overflight of the site, we observed numerous landslides in the Dome Valley area and surrounds, highlighting for us the importance of appropriate additional geotechnical investigation and design work. We conclude that with adequate final design and a high level of re-designing or design safety the site should be adequate. One issue will be the Factor of Safety of the design and any failure pathways.

Tunnel gullies/tomos

[582] Cavities or tunnel gullies, also called tomos or sinkholes were identified in areas adjoining and within the Landfill Valley. Mr Matthew Lomas, a local landowner, provided us with detailed evidence and photographs of tunnel gullies on his property and outlined the effects of them.

[583] Tunnel gullies are erosion features created by the removal of subsurface soil by water. At the Site, these features appear to be the result of relatively shallow tunnel gulley erosion processes in the surficial (< 3 m depth) soil profile. Experts consider that cavities formed by the collapse of tunnel gullies are unlikely to develop between the constructed (fully lined and sealed) landfill shell structure because surface water infiltration will be limited by the presence of the landfill, and groundwater flow will be controlled by engineered drainage systems.

[584] We conclude the risk of such features developing during construction can be appropriately managed and mitigated through the future phases of detailed investigation, design and construction. The experts consider the potential risk can be appropriately addressed by the conditions. Again, a suitably conservative design would avoid this risk.

Groundwater

[585] Groundwater seepage and hydrostatic forces pose a risk to both slope stability and the engineered landfill lining system. The experts conclude that these risks can be mitigated by the installation of a subsoil drain network system incorporating a central drain and additional drains that target specific seeps and springs as they are encountered within the footprint of the landfill.

[586] We remain concerned as to how surface water above and around the Landfill Footprint will be controlled and dealt with. Given the underfloor drains to the landfill,

and the piping of water above the intermediate stages of the landfill, there remains potential for contamination. Water from the landfill cap captured by peripheral drains and water piped under the Landfill Footprint is, we understand, directed to the stormwater system that is physically separate from the leachate collection system and landfill contents. We are uncertain as to the confidence we can have in the complete separation of these flows, and we suggest a downstream failsafe to ensure floodwaters can be impounded or directed to treatment.

Seismic hazards

[587] The experts agreed that the site has a low seismic hazard risk, as documented in a probabilistic seismic hazard assessment undertaken specifically for the Site. We accept that evidence, but a failsafe in the design could accommodate a moderate quake if it were to occur.

Conclusion on technical matters

[588] We cautiously accept the expert advice on geotechnical matters but would need to have the opportunity to consider proposed conditions before being satisfied that the effects can be adequately addressed. In part these risks might be addressed by containment design downstream in case the landfill or its toe fail. Water contamination issues might arise if liner failure were to affect subsurface drains or water from the landfill upper surfaces reached peripheral drains.

[589] We conclude that there is low probability of a landfill failure due to geotechnical considerations, but if there were a failure it could have an impact on the downstream catchment, the magnitude of which would depend on the circumstances.

[590] The potential for water contamination is recognised, but the use of water quality measurement does not give a complete answer. In the event of instrument failure or flood events contamination may reach the Hōteo. While as a percentage of flood volume contaminant concentrations may be low, the absolute quantity of contaminant may be unacceptable (for example, if mercury were to reach the Kaipara catchment). Again, this would need to be directly addressed in conditions supported by management plans.

[591] In the event of instrument failure such that contaminant concentrations cannot be measured, that would need to be addressed by, for example, containment of all waters or cessation of all filling.

Discharges and potential discharges and proposed controls

Erosion and sediment control and stormwater management

[592] During construction, sediment entrained in stormwater at the site will be discharged via its tributaries to the Hōteo River which flows approximately 35 km to the Kaipara Harbour through a mix of farmland, plantation forest and stands of native forest and scrub.

[593] The catchment of the Hōteo River covers 405 km^2 and it is one of several contributing to the Kaipara Harbour, which has a catchment of approximately 6,000 km^2. The Hōteo catchment currently contributes approximately 4% of the sediment discharged to the Kaipara Harbour, or approximately 25,600 tonnes per annum. The Landfill Footprint covers some 60 ha, which is 0.15% of the Hōteo catchment and 0.17% of the Kaipara catchment.

[594] We received evidence on sediment control from Mr Robert Van de Munckhof, who was called by Waste Management. His evidence addressed the following areas:

(a) discharges associated with stormwater, use of land and contaminants from an industrial or trade activity (the landfill); and

(b) discharges of sediment from earthworks during the site establishment works and operational landfill including the stockpiles and clay borrow area.

[595] Waste Management also called evidence from Ms Quinn and Mr Marcus Cameron (marine ecology). The Council called Mr Alan Pattle (landfill engineering, stormwater and industrial trade practices), Mr Mark Lowe (freshwater ecology) and Ms Fiona Harte (earthworks – sediment effects). Ngāti Whātua called Ms Kathryn McArthur (freshwater ecology and water quality) (also appearing for Royal Forest and Bird). The Director-General called Dr Susie Clearwater, (freshwater) and Mr Clinton Duffy (coastal) and Fight the Tip called Dr Leane Makey (marine ecology). All those experts participated in conferencing and produced a joint witness statement.[186]

[596] The context in which the discussions occurred is important, as the experts agreed on the values of the receiving environment. While accepting that the focus of the conferencing was on ecological and water quality values associated with sediment, they acknowledged there are other values, including social and cultural values, of the catchment. They agreed that they would consider the receiving environment as comprising three key scales of assessment:

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[186] 9 May 2022. The Court records that Mr Clinton Duffy was absent from the conferencing.

(a) the immediate freshwater receiving environment (within the Waste Management landholdings);

(b) te Awa o Hōteo; and

(c) the Kaipara moana.

[597] They acknowledged the interconnected nature of the water bodies and land (ki uta ki tai), and noted that the three scales of assessment are artificial in ecological and cultural terms but useful in the context of assessing the effects of sediment.

[598] They agreed that ecological values of the immediate freshwater receiving environment within the Waste Management landholdings range from high to very high. Ms Quinn noted an exception to that – some highly modified stream reaches in the lower-lying Western Block that she considers have a moderate current ecological value with potential for enhancement.

[599] All experts agreed that the Hōteo awa is impacted by sediment. Long term monitoring data is limited to one state-of-the-environment site approximately 13 km downstream of the Waste Management land. They agree that measures to maintain and improve the Hōteo should consider the current state, long term trends and monitoring and/or modelling data for the catchment.

[600] Ms McArthur noted that long-term (1989-2021) trends in water clarity have shown improvement. Finally, they agreed that the ecological values of the marine receiving environment at the Hōteo River confluence with Kaipara moana (the zone of influence) are generally moderate to very high.

[601] The experts agreed that the Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region (**GD05**) is current best practice for erosion and sediment control but acknowledged that not all sediment will be captured by GD05 devices. GD05 is proposed to be the minimum standard implemented on the Site. They agreed that there may be residual adverse effects following the implementation of GD05 controls. There was a range of opinion on the level of residual sediment and associated effects, but that was not explored at the conference.

[602] With the exception of Ms McArthur and Dr Clearwater, the witnesses agreed that an adaptive management approach can be appropriate, following best efforts of erosion and sediment controls and with triggers and standards that are developed in the context of the receiving environment. Ms McArthur and Dr Clearwater required more detail to have greater confidence in assessing the effects, and would like the erosion and sediment

control plans and adaptive management plans to be laid out in full and be site specific.

[603] Additional monitoring of the Waitaraire Stream was proposed. On that latter point we note there has been some agreement around additional monitoring on that stream, and we see that as a matter for conditions.

[604] Ms McArthur and Dr Clearwater consider there is too much reliance on adaptive management, and the effects should be managed and secured in conditions of consent to improve confidence in assessing effects. For some very high value sites it is appropriate to put all best methods in place rather than rely on adaptive management. Finally, they consider the Waitaraire Stream confluence is a significant area of ecological concern and would like more certainty around controls. Dr Makey would like to understand the cumulative effects, and how they would be managed with the proposed sediment and erosion controls. This is discussed further in the Ecology section.

[605] We accept that potential sediment effects relate to both short-term effects from the initial site establishment phase, and long-term effects associated with the operation of the landfill and associated infrastructure. We reach the same conclusions as discussed for water contamination generally. The critical issue is to address high flood or failure scenarios and then provide monitoring in general operation. Again, trigger values are important as well as consequences for exceeding or information not being available in real time.

[606] We find that the predicted residual sediment discharges will increase the sediment loads on the immediate receiving environment by <1% during the initial site establishment, and that in the context of sediment in the Hōteo and Kaipara moana that is an acceptable effect for a period of 5-7 years. However, we conclude this would be unacceptable as a long term effect.

[607] We accept that there are likely to be reductions in sediment discharge from the site during the ongoing operation, associated with the stream planting and revegetation proposed as part of the ecological offsetting. Mr Van de Munckhof considers there will be net positive effects on sediment inputs over the landfill's life (with higher sediment inputs than baseline during site establishment but lower sediment inputs once the landfill is operational).

[608] However, to address parties' concerns as to the certainty of this outcome, additional measures are proposed to mitigate residual effects, as well as sediment load balance conditions requiring an additional offset should the anticipated net positive outcome not be achieved within ten years of landfill operations. We agree with that

approach.

[609] All of the experts (save for Dr Makey) agreed that the sediment load balance approach, which seeks to achieve a net zero discharge, has merit. Dr Makey disagrees because of the inability to address cultural, social or ecological effects. We have already outlined that Ms McArthur and Dr Clearwater consider there is too much reliance on adaptive management, and that effects should be managed and secured in conditions of consent. We agree with this view. Dr Makey also considered that cultural and social values should be considered in the development of the sediment balance approach, and Ms McArthur considered that any restoration efforts should be complementary to the wider Kaipara moana remediation. They noted they had not received any opinion from mana whenua with regards to the acceptability of a sediment balance approach. We agree mana whenua should be involved in setting and checking trigger levels for discharges, and that these should be complementary to the Kaipara Moana Restoration Programme.

[610] Given that the sediment balance approach is only to be applied in the event that the erosion and sediment controls are insufficient, we consider that amendments to the proposal, design and conditions might be developed to make these effects minimal and avoid material harm. We conclude that the conditions must set trigger limits for investigation, immediate abatement and cessation or emergency contingency (that is, landfill failure).

Leachate

[611] There is no proposal to discharge leachate to the environment from the proposed landfill. However, landfills such as the one proposed do create leachate, and it needs to be collected and disposed of. Exceedance trigger levels for investigation, abatement and emergency contingency will need to be set. Again, reliance on operational management plans, although necessary, may not resolve concerns about any discharges that do occur.

[612] Waste Management proposes a lining system, the design of which is said to be appropriate and best practice for the containment of leachate generated by the landfill. Those opposing the landfill were concerned about the risk of leachate escaping from the landfill and into groundwater and the Hōteo. They were all concerned for the health and wellbeing of water.

[613] Ms Eldridge gave evidence on the proposed landfill's lining system for Waste Management. She provided a useful summary of the function of landfill liners. She indicated that liners provide the primary element for environmental containment, separating the external natural environment from the solid waste within.

[614] Landfill liners require careful consideration in conjunction with other elements of development, including leachate and landfill gas collection systems, surface water control, and the design of the founding layer geometry. The lining system's performance is enhanced by the installation of the final capping system, which reduces surface water contamination (where surface water is fully isolated from the waste), surface water infiltration (and therefore the generation of leachate) and restricts landfill gas emissions.

[615] Waste Management proposes a composite lining system of two liner layers (high density polyethylene and mineral soil/geosynthetic clay liner placed against each other). Evidence for Waste Management concludes that provided the lining system is designed and installed in line with best practice requirements, it will provide a high level of engineering containment for the several hundred years that are required for the organic components of the waste to break down. This view was challenged by many appellant witnesses on the basis:

(a) the landfill liner may deteriorate over time and be more susceptible to damage or puncture;

(b) site operations may puncture or damage the liner, and this may not be visible;

(c) micro-plastics may escape to runoff or through leachate escaping the landfill;

(d) as the landfill ceases to be maintained (100+ years) contaminants, including micro-plastics, drugs, hormones and other dangerous contaminants may enter the Kaipara catchment.

Liner design

[616] Mr Van de Munckhof in his rebuttal provided a useful summary of the approach to leachate management. He notes that the overall approach has been based on avoiding the discharge of leachate to surface water in place of managing or minimising the discharge. It is reflected in the following key aspects designed to avoid the discharge to te Awa o Hōteo:

(a) the overall approach to leachate based on treating all surface water that may come into contact with waste to be treated as leachate;

(b) providing secondary containment of any leachate storage at the site to avoid a discharge in the event of a spill or leak (including in the transfer of leachate from the tanks to tankers for offsite disposal);

(c) comprehensive monitoring for the presence of leachate to enable appropriate responses, including monitoring the inlet to the treatment system and outlet of the wetland;

(d) procedures and system to monitor and identify and remediate potential leachate breakouts;

(e) ensuring the amount of leachate within the landfill is minimised (which helps to avoid leachate breakouts);

(f) provision to cease discharge from the outlet of the wetland in the event that leachate contamination has occurred;

(g) the inclusion of monitoring within the perimeter drains to identify leachate prior to it entering the pond system.

[617] Microplastics and other contaminants from landfill waste such as hormones and drugs (described as emerging contaminants) are intended to be addressed by the leachate principles of the design. This is both in:

(a) design and interception of leachate escaping the liner; and

(b) dealing with water falling on or coming from the landfill top surface.

[618] This raises issues as to how these contaminants are identified and controlled in surface water and subsurface drains. From the evidence, the subsurface drains and peripheral drains around the landfill go to a downstream pond with the outflow being monitored. We are less clear about whether such monitoring for clarity, electro-conductivity and certain other parameters would capture the full range of contaminants that may be of interest. While we suspect electro-conductivity would pick up a range of contaminants in leachate, we suspect hormones and microplastics may not feature. The tests for these contaminants and others may be more specific due to the recent appearance of these as a concern.

[619] We record that other experts called by Waste Management and Auckland Council agreed with Ms Eldridge that the design of the lining system is appropriate and best practice. Further, experts agreed that the subsoil drainage and groundwater collection system is appropriately designed to avoid damage to the lining system from groundwater pressure and to capture and provide early warning of any leachate escape through the lining system, enabling contingency steps to be taken in the unlikely event this occurs. The experts further agreed that the quantities of groundwater diverted will be small, with effects on the underlying groundwater system less than minor.

[620] It is clear that tangata whenua, including Ngāti Manuhiri, retain concerns about the potential for contaminants to leave the site and reach the Hōteo, either by intermediary streams or directly. Ngāti Manuhiri has clearly reached the view that its involvement in the project more directly may better ensure that this does not occur. We agree that that does represent a benefit, particularly if mauri and mātauranga principles are taken into account. To other tangata whenua, we acknowledge their concern that this activity will always constitute a risk no matter how low. The RMA is not a no risk statute, but it clearly recognises that the greater the potential effect the more stringent the

assessment of risk will be. This is one of those cases. We conclude that more needs to be done to satisfy tangata whenua that there is no prospect of an adverse effect reaching the offsite streams or Hōteo River.

[621] So far as the taonga species and concerns about loss of stream length, these again relate in part to mātauranga Māori and mauri itself. The involvement of MKCT (and potentially other parties) might achieve a positive outcome if they have a substantial role in operating the Site and the opportunity to introduce some of the mātauranga principles in the operation of the areas surrounding the landfill itself. Nevertheless, again, the question is the adequacy of the steps taken and whether these meet the provisions of the AUP and otherwise satisfy us that consent can safely be granted.

[622] Waste Management submitted that a liner is designed not to leak. However, based on international best practice, some leakage is assumed and the effects of that are assessed. It was further agreed between experts that the site's geology is suitable for leachate containment, being low permeability Pakiri formation bedrock and residual soils. Finally, it was agreed that even in a worst-case scenario, groundwater contaminant concentrations are far below guideline values at all potential exposure points.

[623] We are concerned to ensure there is no potential for leachate contamination. We note that, while a failure in the liner is a remote possibility, it can and does happen. To that extent leachate could escape into the sub-drains or peripheral drains, or into the toe of the landfill. The Court is also aware of the potential for peripheral leakage from the landfill cap occurring as a result of management failures, and is concerned to ensure that the proposed detection systems will detect any leakage and capture the leachate.

[624] To that end, we conclude that the conditions proposed to address such matters must be robust. In the unfortunate event of any discharge, this must be detected and acted upon before it can reach groundwater or the Hōteo. There must be no prospect of any leachate reaching either. This requires a very robust design, redundancy and contingency planning.

[625] Again, conditions and trigger levels will need to be reconsidered, backed by contingencies for failure and strong management plans. Again, this encourages the Court towards considering installing further retention and detection processes below the ponds to avoid contamination of groundwater or the Hōteo.

Stormwater

[626] Experts called on behalf of Waste Management, the Director-General, Auckland Council, Ngāti Whātua and Royal Forest and Bird conferenced on matters relating to

operational stormwater and contaminants. Beyond the concern about leachate contamination the main concern was the potential for erosion and sedimentation of the downstream catchment.

[627] While those opposing the proposal had concerns about the appropriate management of stormwater, we record that the experts agreed on a number of matters.

Stormwater ponds and treatment wetland

[628] The experts agreed that the proposed stormwater ponds and treatment wetland exceed the requirements of the Erosion and Sediment Control Guide for land-disturbing activities in the Auckland Region. They agreed that stormwater ponds and treatment wetlands are appropriate methods for treating stormwater runoff and discharge to the receiving environment from the landfill, although potential effects of elevated water temperature in the receiving waters remained at issue.

[629] Dr Clearwater had additional concerns about impacts on 'environmental flows' being discharged from the wetland and stormwater ponds into the Eastern stream, with potential increases in the in-stream water temperature. The experts agreed that monitoring at the discharge points from the wetland, downstream and upstream, and in North Valley, is appropriate as a minimum in terms of effects of the discharge on the receiving environment. This would be carried out for the operational life of the landfill (and construction phase).

[630] There was some discussion and agreement regarding data collected and the suite of parameters identified in proposed condition 375. Some amendments to proposed condition 375 were agreed, and these would be a matter for further consideration at the time of any finalisation of conditions.

[631] All except Dr Clearwater agreed that during periods of forestry harvest in sub-catchments up-stream of the monitoring sites more reliance on the wetland discharge data will be required to determine and manage potential effects on the receiving environment. Dr Clearwater considered that a comprehensive understanding of pre-harvest conditions needs to be incorporated into the monitoring regime (including trigger levels) to enable effective management (particularly for sediment). She proposed a means by which this could be accomplished, with which we agree, and that is set out in the joint witness statement.

[632] There was some disagreement regarding the baseline data to be used to develop trigger levels for the discharge, parameters in condition 375, trigger levels for management, among others. Again, we see these as a matter for finalising as part of any

conditions.

[633] The monitoring parameters need further consideration. We also conclude that an alternative failure/flood path and additional retention down the Eastern Stream may add another layer of protection in avoiding contamination of the Hōteo River. The issue of forest harvesting causing sediment pulses might be addressed by delaying or limiting harvesting near the Landfill Footprint. Such a flow/detention system may also provide a contingency pathway for any form of contamination by temporary detention and settlement/treatment/removal.

Ponds and treatment

[634] Ms McArthur raised a number of concerns about the adequacy of the proposed erosion and sediment control and stormwater treatment, and whether the capacity of the operational stormwater ponds is adequate. Ms McArthur considers that should consent be granted any proposal should require best practice of the highest standard given the sensitivity of the receiving environment. She also claims that the erosion and sediment controls proposed are unproven as appropriate protection for very high ecological value, and monitoring is inadequate.

[635] Mr Van de Munckhof responds that the erosion and sediment controls proposed for the project have been implemented throughout the Auckland Region and New Zealand as a whole in a wide range of settings. He notes that the experts, save for Ms McArthur, agreed in the joint witness statement that GD05 is current best practice for erosion and sediment control.

[636] Ms McArthur acknowledges it is not always possible to achieve a 95% sediment removal efficiency, and that this is an area of uncertainty. Mr Van de Munckhof accepts that, but notes that the removal efficiencies for the project have been considered over the proposed works areas and the duration of works (being the earthworks season), rather than being a value applied to all rain events and discharges.

[637] Overall, we conclude that the level of effects can be controlled by conditions for the overall discharge of sediment from the project. As previously discussed, this may be elevated above current sediment concentrations during construction, but during operation of the landfill sediment control will be highly effective, to the extent that we can call it a net zero discharge. While uncertainty does exist, as there are factors within the project's control (such as implementation of erosion and sediment control) and factors outside the project's control (such as weather variability and rainfall) we conclude that clear conditions requiring implementation of erosion and sediment control to achieve

net zero discharge and rapid response to outside events appropriately address this issue. To remove doubt and dispute, we conclude that the discharge baseline should exclude forestry harvesting periods but cover removal operations since acquisition.

Flooding and pond capacity

[638] A number of residents made reference to the high rainfall in the local area, which makes the site – they say – prone to flooding. Mr Van de Munckhof for Waste Management accepts that the site does have higher rainfall than experienced in other areas of Auckland, but says this has been appropriately considered during the assessment and design of the surface water systems.

[639] He provided a helpful summary of Mr John Rix's review of rainfall rates and existing flood issues within the Wayby Valley. He agrees with Mr Rix that:[187]

> (a) the stormwater ponds will not alter the frequency, flood extents, flood depths or flood duration within te awa o Hōteo;
>
> (b) the flood levels used to inform the design of the site entrance, bridge access and bin exchange area have been undertaken based on a cautious upper estimate of flood levels; and
>
> (c) the impact of flooding within the flood plain of the Waitaraire Stream are slight, with the largest increase (of up to 140mm) occurring at the bin exchange area and that water levels return to pre-development levels within 150m of the proposed bridge and access from SH1.

[640] The maximum capacity of the proposed stormwater ponds in light of the rainfall in the locality was raised. Pond capacities are far in excess of the current guidance in GD01 and GD05, but as Mr Pattle said in his evidence that is no substitute for a higher level of focus at source. We agree with Mr Pattle, and consider the proposed landfill's management plans, including the Industrial Trade Activity and Environmental Monitoring Plan are key to minimising the potential effects associated with the activities. We also conclude pond sizing should be based on increasing flood frequency and rainfall, and we emphasise our desire for high levels of control, greater than GD05 as Mr Pattle has described.

[641] Mr Van de Munckhof provides a useful summary of the purpose of stormwater ponds when addressing a concern raised by residents as to whether a three-day period of heavy rainfall could produce more potentially-contaminated runoff than could be stored in the stormwater ponds. He notes that the purpose of the ponds is to remove sediment from site runoff, saying there is no intent to store all rainfall runoff from the site in these ponds such that it does not enter the downstream receiving environment following

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[187] Rebuttal, Mr Robert Van de Munckhof, dated 3 June 2022, at [9.6].

sediment treatment. Water flows through the ponds, with some storage up to the maximum water level, and sediment settles along the length of the pond before the water is then discharged. Given that, he says there is no need for the ponds to have storage capacity for three days.

[642] We agree, provided ponds give sufficient settlement time to remove sediment to better than minimum standards. The sizing of the pond depends on the maximum rainfall captured and the time required for sediment to settle. We suspect that rainfall is increasing for major events, and this dictates pond sizing for a large event, for example, 200, not 100 years.

[643] It is also important to remember that the landfill must be operated to ensure that there is clear separation between stormwater and waste or leachate. Any rainfall that comes into contact with waste within the Landfill Footprint should be treated as leachate. The rainwater treated as leachate is only a small proportion of rainfall, and should be managed in a separate system from the stormwater. How the separate ponding for landfill cap peripheral drains is provided is less than clear to us currently.

Potential for landfill failure

[644] In relation to the preceding sections on sediment control, leachate management and stormwater management we are aware of appellant concerns about the potential for very large-scale rainfall events or other natural events to cause what has been termed 'catastrophic failure' of the landfill. This has been expressed in various ways, but it comes down to whether there is potential for an event to mobilise the landfill contents, causing them to become unstable, move or at worst case flow from the Landfill Valley, overwhelm the settlement ponds and wetland and release leachate and landfill waste into the Hōteo River and thence into the Kaipara Harbour.

[645] The landfill is to be built in a valley with a very small catchment that is approximately demarcated by the road around the top of the valley. The water management system is designed to capture stormwater that falls within the valley to prevent it flowing onto the working area of the landfill and drain it away to the settlement ponds. The only water able to enter the landfill via that small working area (approximately 80 m by 80 m) will be the water that falls on its surface directly as rain. As the landfill is constructed, the material within it is to be compacted and capped with clay cover materials in stages, so that water will be less able to percolate into the waste heap and accumulate there. The construction method is designed to keep the inside of the landfill as dry as possible.

[646] The walls of the valley are to be excavated to a depth of around 2 m in any areas where there are unstable surfaces, to minimise the potential for any slippage underneath the landfill once it has been constructed. We are told the weight of the landfill material will further assist in maintaining the stability of the walls, minimising any potential for instability of the landfill waste or the liner beneath it that captures the leachate.

[647] At Phases 1-3, as the operations begin, there will be a pond above the landfill (Pond 4) to capture stormwater from the slopes above and direct it to the settlement ponds via a pipe. It will be constructed such that it will overflow to the stormwater perimeter drains in the event of a storm that is greater than 99% of those that occur annually at this location (the 1% AEP/annual exceedance probability). Pond 4 will be disestablished after the first 5-6 years of operation and no other ponds will be constructed above the landfill.

[648] While the stormwater system has been designed to contain unexpectedly heavy rainfalls, in a very large storm there is potential for more sediment to flow to the Hōteo and out to the Kaipara, but we conclude the amount likely to come from the site is a very small proportion of what would flow from the rest of the Hōteo catchment after a rainfall event that size.

[649] We have listened to and taken account of the concerns expressed about risks to the Hōteo and Kaipara ecosystems. The location of the landfill and the degree of concern expressed by the appellant parties is such that despite the layers of stormwater and sediment control already described by Waste Management we propose a further step. We understand the low risk, but very high impact, of a failure of the landfill or stormwater/leachate system.

[650] We ask whether there is potential to design an additional bunded wetland series below Pond 1. We would envisage it to be an extension of the design to provide an additional layer of security in the event of a significant weather or seismic event. The concept would involve a preference flow for a peak pulse to be diverted parallel to the stream through a series of ponds and stop banks to reduce the rate of flow and allow contaminants to settle. Although not raised by the parties, the concept has been utilised at Matata and elsewhere. Combined with improved regular flow monitoring, this would give more confidence that the Hōteo or Kaipara is unlikely to be adversely affected in all reasonable circumstances. The parties need to consider the practicality of such an approach or another alternative if developed.

[651] Overall, we conclude that this is one of the key issues for this application. We must be satisfied that the application can avoid adverse effects reaching land or water

beyond the Site. The particular focus is on leachate and other contaminants and sediments. At this stage we are concerned that there is not sufficient redundancy in the system to satisfy us that the potential for adverse effects from an escape of leachate or contaminants has been properly designed out. In part this is due to the fact that this is a concept design rather than a final design; and in part due to focus on the liner system and detection systems rather than providing multiple levels of redundancy. This is a case that justifies multiple levels of redundancy and we have suggested a method by which this might be achieved.

Ecological effects

Evidence presented

[652] The ecology witnesses generally approached their subjects from a western scientific and technical perspective and it is from that perspective that this section on ecology is written. The very limited perspective or acknowledgement of cultural values and mātauranga Māori science in the ecological evidence was the subject of considerable cross-examination during the hearing.

[653] We conclude there are critical issues involving the mauri and wairua of the water bodies, the presence of taonga species, including Hochstetter's frog, lizards and bats, and the overarching effect of the proposal on Papatūānuku. We have set those matters out in the preceding section and draw together those effects with matters ecological at the end of this section, recognising that it is impossible to separate out the different effects as they all contribute to the mauri of the freshwater environment.

[654] In relation to the ability of the ecology witnesses to incorporate a cultural perspective in their evidence we note Commissioner Tepania's comment in her decision, that *while cultural aspects of the environment include both physical and spiritual dimensions, the effects on cultural values, whether they be physical or spiritual aspects must be assessed within a cultural framework and by those with the requisite knowledge to undertake that assessment*. Accordingly, we see the evidence presented in this section as a contribution to our holistic assessment that must include that cultural evidence. In other words, the scientific and technical ecological evidence is important, but the mātauranga and cultural evidence on ecological values and mauri is also important. Together, they provide a much better understanding of the ecological impacts and effects on mauri relevant in this case.

[655] We heard evidence on the ecology of the site and surrounds including the values of the existing vegetation, habitats, fauna, and freshwater values, as well as marine values in the Kaipara Harbour and Hōteo River estuary. The effects of the proposal on each

attribute were exhaustively explored.

[656] This included, in many cases, comment on the mitigation proposed for construction and operation of the landfill, and on the offsetting and compensation proposed for what all ecological witnesses considered to be significant residual adverse effects of the project on biodiversity.

[657] The degree to which Waste Management's proposal for ecological management can be demonstrated to prevent a net loss of biodiversity (and preferably provide a net gain) was a subject of contention. Suffice it to say that the Court received a comprehensive range of opinions on the ecological issues from the witnesses who covered a range of often-intersecting specialist topics.[188]

[658] All parties agreed that while some mitigation of effects can be achieved onsite, the residual adverse effects would need to be offset or compensated for offsite. In short, there will be loss of various threatened flora and fauna, particularly within the Landfill Footprint.

[659] Expert conferencing commenced in May 2022 and continued into November 2022. The conferences narrowed the issues considerably and agreements or concessions were reached on a range of matters.

[660] Key ecological issues remaining relate to:

- Whether the loss of 12.2 km of high-value intermittent and permanent streams can be mitigated, offset or compensated for.
- Whether the loss of habitat and of threatened native plant and fauna species can be mitigated, offset or compensated for, such that there is no decrease in biodiversity values as a result of the proposed development.

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[188] **Waste Management**: Dr Matthew Baber – Terrestrial and wetland ecological; Mr Roger MacGibbon – Terrestrial ecological values; Mr Dylan Van Winkel – Effects on herpetofauna; Ms Hannah Mueller – Bat ecology; Dr Helen Blackie – Pest management; Ms Justine Quinn – Freshwater ecological values; Dr Marcus Cameron – Marine ecology values.
Auckland Council: Mr Simon Chapman – Terrestrial ecological values; Mr Mark Lowe – Freshwater ecology.
Director-General: Dr Susie Clearwater – Freshwater; Ms Melanie Dixon – Wetland ecological values; Ms Tertia Thurley – Bat ecology; Dr Jennifer Germano –Values and effects on Hochstetter's frogs and lizards; Mr Rhys Burns – Effects on avifauna; Mr Thomas Emmitt – Pest management suitability; Dr Laurence Barea – Biodiversity offsetting and compensation; Mr Clinton Duffy – Coastal and estuarine ecology.
Royal Forest and Bird: Ms Fiona Wilcox - Terrestrial and wetland ecology values. **Ngāti Whātua:** Dr Fleur Maseyk - Terrestrial and wetland ecology; Ms Kathryn McArthur – Freshwater ecology and water quality.
Fight the Tip: Dr Leanne Makey – Marine ecology.

- Whether there will be adverse effects of sediment discharges on the Hōteo River, its tributaries and Kaipara Harbour.
- Tangata whenua relationship values with freshwater and other taonga.

[661] These issues each contain a bevy of sub-issues which we will explore later. First, for context, we provide descriptions of the ecological setting of the proposed landfill, and we summarise the existing freshwater, wetland and terrestrial values of the site and those of the Hōteo River and Kaipara Harbour.

Ecological setting

[662] The principal features of the Site are summarised as follows:

(a) the 1,070 ha Waste Management landholdings comprises a mixture of terrain and land uses, including pastoral farmland (approximately 188.35 ha), plantation forestry (approximately 713.89 ha of pine and wattle), 114.59 ha of indigenous forest (forest and regenerating scrub), 15.66 ha of indigenous wetlands and 14.45 ha of exotic wetlands.

(b) the land rises from the Hōteo awa and the farmland in the west to steep hills covered with plantation forestry in the east.

(c) the Waste Management landholdings are zoned Rural Production zone in the AUP.

(d) the landfill will be located within the Landfill Valley in the Eastern Block, an area that currently has a cover of near-harvestable pine plantation.

(e) the land to the northeast, east and south of Landfill Valley is owned by Waste Management and is covered mainly in plantation forest, managed by Matariki Forests.

(f) the land is undulating, with numerous steep ridges and valleys.

(g) to the west and north-west of the project area the topography flattens out, with rolling hills that are mostly operated as dairy, beef and sheep farms, with some lifestyle blocks.

(h) there are large tracts of high quality native forest within the wider area, including the Sunnybrook Scenic Reserve (154.5 ha) and the Dome Forest Stewardship Area (401 ha).

(i) Te Awa o Hōteo, which is recognised as a Natural Stream Management Area and Outstanding Natural Feature, is on the boundary of the Waste Management landholdings.

[663] The broader context of the site is shown in **Annexure A**,[189] which shows the location of features of the Site within the Dome Valley.

Ecological values

Freshwater ecosystem values

[664] Some 12.2 km of permanent and intermittent streams that flow through the Landfill Footprint and other parts of the site will be lost due to the project, mostly by excavation of the Landfill Footprint. These contain a range of freshwater species and provide ecological services. Ms Quinn, who carried out a range of freshwater surveys for Waste Management, said the survey effort was *extensive, includes a range of techniques and is sufficient to understand fish and large invertebrate populations and habitat values for the purpose of the Project*.

[665] The fish surveys recorded nine species of native freshwater fish, three of which are *At Risk–Declining* (under the New Zealand Threat Classification System managed by the Department of Conservation) being longfin eel (*Anguilla dieffenbachii*), inanga (*Galaxias maculatus*) and torrent fish (*Cheimarrichthys fosteri*). Kōura (*Paranephrops planifrons*) were present at four of the seven sites. Two species of kākahi (*Echridella species*), also *At Risk* were found in the 2021 surveys of lower Waitaraire Stream (both upstream and downstream of the junction between the proposed project access road and SH1).

[666] An additional species, lamprey (*Geotria australis – Threatened–Nationally Vulnerable*) was found at a site in Sunnybrook Scenic Reserve and within forestry on Waste Management land in the Waiwhiu catchment, that is, not within the project area itself. The species was not found in the project area or elsewhere during previous project surveys, but its presence is noted.

[667] Dr Clearwater added further information about the Department of Conservation's rankings of streams on and adjacent to the landfill site that are not formally protected. She noted that 45% of the Waste Management land in the Western and Southern Blocks is in the highest two (of ten) rankings of unprotected freshwater habitat in New Zealand. We note that the streams and wetlands (other than those directly affected by the construction activities) are to be protected under the proposed Ecological Management

[189] Refer paragraph [7] of this Decision.

Plan (including the Northern Valley, added on the last day of the hearing).

[668] The freshwater ecological values and the effects of the project were assessed by Ms Quinn using the New Zealand Ecological Impact Assessment Guidelines (**EcIAG**) which she said were developed to *provide a nationally consistent direction to be adopted when assessing ecological impacts*. She acknowledged the reference to cultural context and values in those Guidelines but did not address them.

[669] There remained some differences of opinion as to the magnitude of effects captured by the guideline framework, however the experts agreed that the values of the freshwater receiving environment on the Waste Management property were high or very high. The exceptions noted were some highly modified stream reaches in the Western Block. These were considered to have a moderate ecological value currently but with potential for enhancement.

[670] Ms Quinn used the Stream Ecological Valuation (**SEV**) method to assess the values of the stream at 20 sites across the Waste Management property including Landfill Valley (7 Sites), Southern Block (6 sites), Western Block (6 sites) and Waitaraire Tributary Block (1 site). Sites were selected as impacted sites or potential mitigation or offset sites. She then used the Ecological Compensation Ratio (**ECR**) to quantify the amount of stream bed needing to be restored to address residual adverse effects. Original calculations showed around 30 km was necessary. By the time of this appeal hearing Waste Management was proposing some 50-60 km of stream be restored or rehabilitated via riparian planting and other works.

[671] The freshwater ecologists agreed that the SEV is an appropriate tool to assess the value of the ecological functions of the streams on the Site. Ms McArthur and Dr Clearwater noted that the ECR method does not account for all ecological values such as structure, extent, biodiversity, and conservation status. In addition, water quality monitoring was carried out in the surrounding catchments against which to consider the biological values.

Terrestrial vegetation and habitat values

[672] The site has been in farming or forestry since the 1960s or earlier. At that time little riparian vegetation existed along the streams and a large proportion of the Site was farmland. Pine and wattle forests were likely planted between 2001 and 2004 and there has been some native forest regeneration, resulting in the vegetation cover seen today.

[673] Surveys and evaluation of the terrestrial vegetation and habitats were carried out by Dr Baber (called by Waste Management), who assessed the values and effects following

the EcIAG methodology to determine the relative values of components of the ecosystem on a qualitative scale. The surveys were carried out in preparation for the Council hearings held in November 2020 and again in preparation for this hearing.

[674] Dr Baber identified ten indigenous habitat types at the Site, including five mature indigenous forest types, two regenerating forest types, and three indigenous wetland types. They include (with their threat classifications):

- 55.97 ha of mature native forest of five ecosystem types. Kauri, podocarp, broadleaved, beech forest is considered *Threatened-Critically Endangered*; while kahikatea-pukatea forest, taraire, tawa podocarp forest and kauri, podocarp broadleaved forest are considered *Threatened–Endangered*. Anthropogenic totara forest is not threat-ranked.

- 50.36 ha of two regenerating forest ecosystem types: kanuka scrub/forest and broadleaved scrub, both classified *Least Concern*.

- 15.66 ha of native wetlands in three ecosystem types: manuka tanglefern scrub; flaxland; and raupō reedland, all classified *Threatened–Critically Endangered*:

- Natural wetland in wet pasture (14.45 ha) and areas of pine and wattle are present, neither of which is afforded a threat classification because they are dominated by exotic species.

[675] Of the significant ecological areas identified in the AUP, no Significant Ecological Areas, Natural Stream Management Areas or Wetland Management Areas are within the Landfill Footprint.

[676] Eight plant species identified on site are listed as *Nationally Threatened* or *At Risk* by the New Zealand Threat Classification System, all of which have that status as a precautionary measure due to the risk of myrtle rust. These are four *Metrosideros* (pohutukawa and rata) species, swamp maire, manuka and kanuka. Two other species, kawaka and kaikomako, are identified as being significant because they are threatened in the Auckland Region.

Terrestrial and wetland fauna values

[677] Many of the indigenous fauna species recorded at the Site are classified as *Threatened* or *At Risk*. All are protected under the Wildlife Act 1953.

[678] **Long-tailed bats** (*Threatened–Nationally Critical*) are known to use the exotic and native vegetation on the Waste Management landholdings for foraging, based on surveys

undertaken on three occasions over the period 2018-2022. The highest level of activity was recorded near the bin exchange area, in (exotic-dominated) wattle forest. There are no identified roost trees for bats within the project footprint, but the experts agree that they could be present.

[679] Twenty-one **native bird species** and five introduced species were recorded during surveys of the site. Most are relatively common in agricultural and pine-forest landscapes. Species recorded at the site that are considered *Threatened* or *At Risk* under the Threat Classification System included black shag, long-tailed cuckoo, New Zealand pipit, whitehead, North Island fernbird and spotless crake. The wetland and forest habitat of fernbird and spotless crake within the Waste Management landholdings is almost all outside the project footprint.

[680] A single Australasian bittern (*Threatened–Nationally Critical*) was observed during a monitoring survey of the Wayby South Wetland after the hearing ended, the species not having been confirmed at the site previously. Other *At Risk* bird species not recorded at the site but that bird experts considered may be present were kākā, kākāriki and pied stilt.

[681] Of the **lizards,** the native copper skink (*At Risk*) and introduced rainbow skink (exotic) were recorded during site surveys and a single native gecko was found in a more recent monitoring survey. The lizard experts agreed that four other lizard species, three of which are *At Risk* may be present on the wider Waste Management property but most of the habitat within which they could be expected to occur is outside the project footprint.

[682] The endemic **Hochstetter's frog** (*Leiopelma hochstetteri*) (*At Risk–Declining*) has been recorded within the project area, in the Landfill Valley itself but also in other areas on the wider site and adjacent areas outside. Some 20% of the 9.5 km of permanent and intermittent streams in the Landfill Valley provide suitable habitat for the frogs, particularly in hard-bottomed stream cascade complexes. Their presence in that valley indicates their ability to maintain a population despite exotic plantation forestry operations there.

[683] Current protections of those habitats include the NES-Plantation Forestry (now the NES-Commercial Forestry) and the certifications held by Matariki Forests under the Forest Stewardship Council and the Program for the Endorsement of Forest Certification Standards. These, and the Wildlife Act 1953, under which authority is required for disturbance of protected native species, may mean that disturbance to the habitat and the animals will be limited in nature during future forestry operations.

[684] Searches of other streams in 2022 found that the frogs are present in other native, pine and wattle forest areas in the broader Waste Management property, as reported in the attachments to Dr Baber's rebuttal evidence. They are also known to be present in an area proposed for predator exclusion on the Waste Management property as part of the Ecological Management Package we will describe later.

[685] There was considerable emphasis on the outcome for frogs at the hearing and agreement as to their management had not been reached by the end of the hearing. The frogs are within what is known as the Southern Clade (group) of Hochstetter's frog in the Northland Evolutionarily Significant Unit of this species, the Northern Clade being in the Brynderwyn Range. The Landfill Footprint population forms a small part of the Southern Clade. However, population numbers are extremely difficult to estimate, given the secretive nature of the frog and its high rate of decline. Their vulnerability to predators indicates that the frog population in the Southern Clade will continue to decrease in the absence of predator Control. Dr Clearwater noted that the predicted rate of decline of frogs in the Northland Evolutionarily Significant Unit is 10-30%. Lizards, large invertebrates and forest birds are similarly vulnerable to predators though we were provided with no estimate of their likely percentage decline over time.

[686] Searches for **terrestrial invertebrates** found the native rhytid snail (*At Risk*) and a velvet worm *Peripatus* (variable threat classification depending on species) during searches of suitable habitat within and around the project footprint, and the experts agreed they are likely to be commonly present. No kauri snails (*At Risk*) were found during surveys but the experts considered they may be present.

[687] The **mammalian pest/predator species** commonly found in lowland habitats are agreed by the ecologists as likely to be present in moderate to high numbers, particularly in wetland and native forest areas, including feral cats, ship rat and Norway rats, the mustelids ferret, stoat and weasel, hedgehogs, hares and rabbits. Sign of other mammalian pest species possum, pig, goat and deer was observed by experts across the Waste Management property. These pests are well known to predate or otherwise disturb many native species and their habitat.

Marine ecology values

[688] Marine ecological values were of considerable importance at the hearing as described in the previous section on cultural values and relationships. The Hōteo River and Kaipara Harbour are highly valued.

[689] Mr Cameron described a 'zone of influence' around the mouth of the Hōteo River at the Kaipara Harbour as the area thought to be the predominant sink for sediment discharged from the Hōteo River. The zone of influence supports a large area of saltmarsh and mangrove forest vegetation on shallow subtidal and intertidal sand and mudflats. Several Significant Ecological Areas are present within this area, including Tauhoa Scientific Reserve, one of two significant mangrove reserves in New Zealand. These support rich intertidal flora and fauna, including seagrass beds and habitats identified as nursery areas for fish. Mr Cameron listed a range of shellfish species and birds that occupy the area and noted the presence of dolphins at times.

[690] The biodiversity values of the Kaipara Harbour were agreed by all experts to be moderate to very high. Dr Makey added a social-environmental geographic perspective, that the ecosystems were considered *kin, a family member, actor and agent with inter-dependence and its own entity,* which she said *gives effect to an ethical understanding of values*.

[691] All agreed that the Kaipara *has a significant role in the wider west coast ecosystem for a variety of species and that the diversity of benthic invertebrate populations in the vicinity of the Hōteo mouth are very important feeding areas for wading birds in the south and central Kaipara*.

[692] The area in the vicinity of the Hōteo River mouth was agreed to be somewhat degraded, and the experts considered that turbidity and sedimentation contributed the most to that, and that nutrients made a lesser contribution.

[693] During construction, sediment entrained in stormwater at the site will be discharged via its tributaries to the Hōteo River which flows approximately 35 km to the Kaipara Harbour through a mix of farmland, plantation forest and stands of native forest and scrub.

[694] The catchment of the Hōteo River covers 405 km^2 and it is one of several contributing to the Kaipara Harbour, which has a catchment of approximately 6,000 km^2. Mr Cameron's evidence is that the Landfill Footprint covers some 1039 ha, which is 0.15% of the Hōteo catchment and 0.01% of the Kaipara catchment. From Mr Van de Munckhof we heard that the Hōteo catchment currently contributes approximately 25,600 tonnes of sediment per annum (4% of the total discharge) to the Kaipara Harbour.

Effects on freshwater values

[695] The effects of the project on freshwater values include loss of streams at the landfill site, potential sedimentation of downstream waterways and the potential for discharges from the settlement ponds to increase water temperatures directly downstream.

[696] Loss of the streams will remove all in-stream biota, including fish, invertebrates and amphibians (including Hochstetter's frog). This is a permanent loss.

[697] By far the greatest concern of tangata whenua witnesses was the unintended discharge of sediment or leachate to the Hōteo River and thus to the Kaipara.

Effects on terrestrial values

[698] The creation of the Landfill Footprint and other works will remove indigenous forest and wetland vegetation, exotic-dominated wetland, exotic pine forest, exotic pasture and exotic-dominated wattle forest – all of which provide habitat for fauna as described above.

[699] That is expected to lead to the mortality of an unknown proportion of the flora and fauna present, the degree of loss being dependent on the vegetation type, the mobility of the fauna and other factors. It includes the permanent loss of the stream and terrestrial habitat occupied by Hochstetter's frog in the Landfill Valley, degradation and fragmentation of habitat through vegetation clearance and earthworks activities, and potential sedimentation effects on riparian and stream habitat in other parts of the site.

[700] Other effects include a reduction in the feeding habitat and potentially the roost sites of long-tailed bat, reduction of habitat for threatened wetland bird species including fernbird, spotless crake and bittern, and diminution of the habitat of threatened forest bird species and lizard species, along with the habitat of numerous other species.

[701] Despite the highly modified nature of the habitats involved, the presence of a large number of species and habitats considered *Threatened* or *At Risk* means the successful management of effects to improve biodiversity is of high importance.

Effects on the marine environment

[702] Waste Management accepts there will be sediment discharges from the Landfill Footprint, with initial increases in sediment during construction followed by decreases once all sediment ponds and the management regime are in place.

[703] Dr Makey was of the view that the proposed controls would not be sufficient to protect the longer term and intergenerational values or mitigate the long-term effects of sediment pollution on the Kaipara Harbour.[190]

[190] JWS Marine Ecology, 22 July 2022.

[704] Although unable to give technical comment on the modelling presented by Waste Management in relation to sediment management, Mr Duffy considered that if it is correct, the effect of the project on the zone of influence is likely to be minor. However, he opined that if there was a more-than-minor failure of the landfill's sediment control measures or if the landfill itself failed, the effect on the marine environment could be significant. He also wanted to see more information about the possible sediment reduction measures that would be employed if the sediment balance is not achieved.

Effects management – avoidance, remediation and mitigation

[705] The availability and extent of avoidance, remediation and mitigation was in significant dispute between the experts. Given that all experts acknowledged there remained more than minor effects after all these steps we do not intend to dwell on these differences. Waste Management gave evidence about the steps it had taken to avoid, remedy, mitigate and offset various effects of the activity. Many of those steps were not in dispute.

[706] The focus in this case was how to address the loss of stream length within the Landfill Footprint and the species associated with it. Arguments then fell as to whether some of the remediation and mitigation methods adopted by Waste Management were appropriate or not.

[707] The core position for all of the appellants was that the adverse effects on threatened species had to be avoided. They argued it was not appropriate to use a lower-level method of effects management.

[708] The approach of Waste Management to select this site in the absence of any detailed ecological investigation set the parameters within which the ecology experts could assess the proposal. In addition, they did not assess the cumulative effects of forest clearance on the site as that was being dealt with by Matariki Forests. As a result, there has had to be a strong focus on offset compensation.

[709] In designing the site layout, the Waste Management experts sought to avoid Significant Ecological Areas, Natural Stream Management Areas and Wetland Management Areas. Further, in relation to adverse effects Waste Management responded to concerns raised in the previous hearing and to ecological advice in relation to:

(a) avoiding particular habitats or hotspots of important species;

(b) reducing effects on streams and avoiding clearance of two small wetlands;

(c) minimising the risk of landfill instability by modifying the initial reliance on a temporary pond 4 and toebund in favour of a permanent toebund;

(d) moving the toebund up the valley thereby reducing the footprint of the landfill and the area of vegetation and habitat to be cleared;

(e) moving the main stockpile to avoid high-value kahikatea and pukatea forest;

(f) avoiding sediment runoff to the Northern Valley by re-configuring a ridge-line stockpile and associated drainage system;

(g) moving ancillary infrastructure to avoid higher-value ecological areas and enable the construction of a predator-proof fence;

(h) connecting two parts of the proposed predator-proof fence with a bridge rather than culverts to minimise effects on the stream;

(i) designing improvements to the wetland adjacent to the kahikatea and pukatea forest near the stockpile area by hydrological modification (as necessary) and revegetation;

(j) proposing vegetation clearance management with input from onsite ecologists to minimise damage to adjacent high-value vegetation;

(k) constraining works and vegetation clearance in bird habitat during breeding season in native forest and wetlands, including a 30 m buffer around wetlands.

[710] Restoration works are proposed in the immediate surrounds of the landfill and ancillary structures where screen plantings of native vegetation will be carried out, and bare ground around the landfill will be stabilised with grasses and short-stature native planting.

[711] There are a number of mitigation proposals onsite for the project effects. These include:

- Translocation of fauna and flora. This will include the capture and translocation of Hochstetter's frogs, fish, kākahi and kōura from the Landfill Valley and other streams that will be permanently lost. The destination of the salvaged frogs remained at issue until the end of the hearing when it was confirmed by Waste Management to be the predator-fenced area, to be created as we will describe later, which already contains frogs.

- Replacement planting of wetland vegetation that is not within a Significant Ecological Area to address the loss of wetland extent where there has been partial

removal.

- Provision of artificial roosts or roosting cavities for long-tailed bats as roost trees may be removed from the project area (though none have been identified).
- Planting of 42 ha of native forest around the access road and bin area, along with the entire area around the south-western edge of the landfill and its adjacent onsite roading and pond area.
- Mitigation for the some of the loss of streambed area to address both the quantum of stream habitat and its biota that will be destroyed, including fish, kākahi and kōura. This will see 8 km of permanent and intermittent stream bed improved by planting with riparian vegetation and protected. This addresses 19% of the stream length affected by the project, with the remainder to be offset offsite.

[712] Waste Management's experts concluded that most of the remaining effects could not be avoided, remedied or mitigated on site, due to:

- The desire to minimise the area of earthworks needed to establish the landfill and ancillary facilities;
- The almost complete removal of the vegetation from the Landfill Footprint; and
- The limited area left that could be used for stream and terrestrial mitigation.

[713] We conclude there would be significant residual adverse effects that could not be avoided, remedied or mitigated on the Site, particularly in the Landfill Footprint. We describe these residual effects below and then set out the Effects Management Package that Waste Management proposed to address them and the arguments as to the methodology proposed.

After mitigation, what are the residual adverse effects?

[714] In relation to terrestrial residual effects the following were described by Dr Baber:[191]

- High level of residual effects via vegetation loss: kanuka scrub / forest (5.77 ha), manuka and tanglefern scrub (0.4 ha), raupō reedland (0.06 ha), exotic dominated wetland (1.02 ha), anthropogenic tōtara forest (0.64 ha).

[191] We have corrected these figures to account for additional avoidance measures already described earlier, i.e., we removed the kahikatea swamp forest and reduced the quantum of effect on the exotic wetland.

- High level of residual effects via habitat loss or direct harm: Hochstetter's frog, long-tailed bat, spotless crake, North Island fernbird and copper skink.
- Moderate level of residual effects via vegetation loss: broadleaved scrub/forest (0.04 ha), exotic pine forest floor habitat (114.71 ha).
- Moderate level of residual effects via habitat loss on: Australasian bittern, long-tailed cuckoo, swamp maire, four lizard species and invertebrate species Rhytid snail and potentially kauri snail.
- Low level of effects on forest and wetland birds.
- Low or very low level of effects on a range of other biodiversity values and that appears to include exotic dominated vegetation (1.02 ha of wetland and 114 ha of pine forest).

[715] In relation to freshwater, mitigation will address 19% of the loss of stream length. Loss of the remaining 81% of the stream length is a significant residual effect and has implications for associated freshwater plants and animals, including the water-obligate Hochstetter's frog.

Residual effects management s 104(1)(ba) – offset or compensation?

[716] There was a common view by all parties, and it was not argued before this Court, that there were significant residual effects. The question as to whether the effects should be avoided was at the forefront of the argument by the parties before this Court. The view of the Director-General, supported by Royal Forest and Bird, was that in respect of the Hochstetter's frogs, at least, the effects could not be avoided and it is not possible to then remedy, mitigate, offset or compensate for these.

[717] A number of experts appeared to consider that effects which cannot be avoided, remedied or mitigated on the landfill Site could be addressed by offset or compensation, presumably on the assumption that remedying or mitigation, then offset, then compensation substitute for avoidance. In this case, the avoidance suggested by the appellants was that the site not be used.

[718] For **offsetting**, the principles are set out in the AUP's Appendix 8 Biodiversity Offsetting, in NPS-FM 2020 for aquatic effects (version February 2023), and most recently in the NPS-IB 2023. They require (among other things) that an offset be measurable or quantifiable in advance such that the degree to which it will achieve its purpose can be known. Its purpose is to achieve at least no net loss of biodiversity and preferably a net gain.

[719] Situations arise in which the outcome of an offset activity cannot be quantified, such as when fauna species are difficult to survey and enumerate in advance of the effect occurring or to monitor after an offset activity has been applied, or if their response to a certain habitat cannot be predicted. Cryptic and/or very mobile species, such as the frogs, lizards, bats and invertebrates that are found on the Waste Management site, are typical of such situations. In those circumstances **compensation** may be available.

[720] We note that these provisions are not mandatory in application but are to be had regard to under s 104(1)(ba). Whether this Court is likely to consider such approaches will turn on a number of factors but must be guided by the objectives and policies we have discussed. In relation to the effects on site (as opposed to discharges), the objective must be to maintain or enhance biodiversity and mauri of the area. In that regard we would see the relationship of tangata whenua with the Site and the species as being a matter of importance also.

[721] We were presented with models to calculate offsets and compensation, develop an effects management package and estimate likely outcomes. It was fundamental to a number of appellants' positions that they did not see this as appropriate, because they were not satisfied that the calculations were reliable and would result in a positive outcome for the species under consideration. They submitted consent should be refused because of adverse effects on significant species and the loss of some 12 km of streams. They relied on the *avoid* policies (AUP E3.3 (17) and (18)).

[722] To address residual effects on native forest loss a biodiversity offset accounting model was used by Dr Baber to show that the planting of native trees to offset the loss of those greater than 15 cm in diameter would result in a net gain for all species, using the known basal area loss and calculated basal areas over 15 or 20 years based on known growth rates for each species. This model could not be used for many of the fauna species of interest as the offset method relies on quantitative data (such as population data from both before and after the offset activity) that the experts agreed would be very difficult or impossible to obtain.

[723] Dr Baber used a biodiversity compensation model (**BCM**) to calculate compensation for the loss of terrestrial habitat; wetland biodiversity in relation to the loss of wetland habitat on species of conservation interest including spotless crake, fernbird and Australasian bittern; Hochstetter's frog in relation to the loss of pine-forest stream habitat; and long-tailed bat and copper skink in relation to the loss of pasture and exotic and native vegetation. The BCM takes a qualitative approach.

[724] The BCM model was used to estimate the area that would be needed to enable the existing populations in a proposed compensation area to expand to make up for the losses suffered at the Site.

[725] The compensation modelling predicted there would likely be no net loss of ecological value but likely a net gain in all the species and communities Dr Baber examined, as a result of the Effects Management Package he and other ecologists for Waste Management designed. That includes predator-proof fencing, pest control, and other activities.

[726] The use of the compensation modelling method was criticised by other ecologists but the outcome of his calculations assisted Waste Management in confirming the design of the Effects Management Package.

[727] Based on the likely positive effects shown by his modelling Dr Baber was confident in the outcome of the Effects Management Package, saying *as far as I am aware and relative to the level of effects on wetland and terrestrial ecology values, this is the most comprehensive residual effects management package proposed for any RMA consent application*.[192]

[728] His confidence was not shared by other expert witnesses, and the Director-General did not accept that the compensation model was acceptable as there was no way to determine quantitatively that its outcome would be as predicted and this posed too high a risk to the species of interest.

[729] The majority decision of the Council found that Dr Baber had demonstrated there would likely be benefits arising from the Effects Management Package, with some provisos regarding wetland management. The minority judgement was not satisfied that such an outcome could be achieved. In both judgements the level of certainty and the period for achievement are unclear. Furthermore, there was no discussion of cumulative effects of harvesting on the Site or effects of climate change.

Problems with offsets and compensation

[730] As we have already identified, the core issue is whether we are satisfied that the objectives and policies of the AUP and superior documents are going to be achieved by the proposals before the Court.

[731] Clearly, avoidance is the most certain outcome and from there on there are decreasing levels of certainty about the outcomes. Dr Baber referred to likely a net gain

192 Dr Baber, Rebuttal, EVD 2554.

from the compensation proposed, which indicates to us that it is more probable than not that there will be an improvement in 10 years' time. This is to be compared with the immediate loss of an estimated 1000 frogs plus other stream habitat and other biodiversity including bat, lizards, fish, etc. The Court must be satisfied that a net gain outcome will be achieved and is measurable over a reasonable timeframe. This inevitably requires that risks as to the outcome are addressed by contingency planning to assure the outcome.

[732] We understand that any mitigation project, including riparian or terrestrial planting, fauna translocation and habitat restoration, will take time for the benefits to be realised and that is taken into account in the modelling. We also understand that the modelling itself is used to estimate the time that will be needed for a positive outcome to be observed. Where there are doubts they must be addressed by providing alternative methods to assure the outcome.

[733] We are aware that a population increase may be very difficult to demonstrate, the issue being the cryptic nature of the frogs and the inability to reliably find them in repeated monitoring rounds.

[734] We conclude that the differences between the experts as to the value of the model predictions hinge on their views of the reliability of the outcomes for the stream loss (being offset) and for the various other species and habitats. Certain losses will occur from this project. We conclude that the proposal needs to satisfy us that the frog population in the predator-controlled area is maintained in the short term, 3-5 years and improved in the medium to long term, say 6-8 years. To rely on offset or compensation we need to be satisfied that avoidance, remediation or mitigation have been carried out to the greatest degree possible. In evaluating the lower order outcomes (especially for threatened species) the Court will be looking for the best possible certainty of outcome over the shortest possible period. Again, this is a matter for pragmatism and proportionality.

The Effects Management Package

Freshwater streams and biota

[735] Waste Management proposes that the residual effects relating to stream loss be offset by the protection and riparian planting of streams elsewhere in the Hōteo catchment (or the Kaipara catchment if sufficient sites in the Hōteo catchment cannot be found). As described earlier, the quantum of riverbed that would protected by fencing and riparian planting determined by the SEV and ECR method was approximately 50-60 km of stream length.

[736] Approximately 8 km of riparian planting will be undertaken as mitigation on the Waste Management property, along with 11 km of stream compensation (protection in perpetuity) on site. In addition, the riparian protection and planting of the Northern Valley stream was proposed during Waste Management's closing submissions (although the details of this were not yet clear). We think this would be considered compensation, unless it is offered as an offset with the necessary pre- and post-management detailed measurement, and we have no detail as to that.

[737] The locations for the offset stream enhancement and protection work in the Hōteo catchment have yet to be agreed, and we understand that landowners are reluctant to make agreements in advance of the project's resource consents being granted.

[738] While the methods are broadly understood to include a stock-fenced, covenanted 20 m riparian zone along both sides of the streams, the details as to the inclusion, treatment and management of headwater streams and of flood-prone areas such as Wayby Valley have yet to be determined. As is recognised by all parties, stock-fencing is required by statute and this does not form part of the offset. However, we acknowledge that a funding source will make the fencing more likely in the short to medium term.

[739] We also note that the KMR project is providing funding for similar works throughout the Kaipara Catchment including the Hōteo. It provides a 50% subsidy for similar works to that proposed. Given the thousands of kilometres of waterways in the catchment we see the projects as complementary, with the Waste Management proposal focused only on the Hōteo.

Terrestrial and wetland ecosystems and their fauna

[740] The Effects Management Package comprises pest and predator management on the Waste Management site to protect the remaining indigenous vegetation and natural streams within it as well as revegetation of farmland and the protection and enhancement of wetlands. The package has several components:

(a) A 126 ha **Wayby Valley Sanctuary** (provisionally named) near the western edge of Waste Management's land, and close to the northern boundary of Sunnybrook Scenic Reserve. The sanctuary is to be surrounded by a 7.6 km predator exclusion fence like those built and operated elsewhere in New Zealand. A long-term eradication programme within the sanctuary will target all mammalian pests (cats, rodents including mice, mustelids and possums and other known pests).

The sanctuary would encompass 41.9 ha of existing indigenous forest, 14.72 ha of wetland habitat, 26.01 ha of pine and wattle (exotic-dominated) forest, and

38.86 ha of pasture that will be revegetated with forest, wetland and riparian species selected to suit terrain and hydrology. At the point where the access road to Landfill Valley would cross a tributary of Waitaraire Steam, the sanctuary would be divided to allow for bridge and road construction and operation, whilst preserving the predator-proof nature of the fences.

(b) **Native vegetation** would be planted over 88.76 ha of Waste Management land to the north of the Wayby Valley Sanctuary. This would include 38.36 ha of terrestrial restoration (native trees and shrubs), 5.31 ha of wetland revegetation and enrichment planting, and 45.09 ha of riparian planting along existing watercourses.

It is not clear to us what the final vegetation cover for the main soil stockpile, the topsoil stockpiles or the clay borrow and stockpile area will be. The clearance of those areas may also be mitigated by replanting with natives at closure of the site but we do not have that detail.

(c) **Mammalian pest control** over the remaining wetlands, indigenous forest and revegetated areas described in (b) above, along with the adjacent pine forest (103 ha) and native forest (17.82 ha), to achieve stated pest densities for each vegetation type /area. We note that *Figure 14 Forest and Wetland Compensation Package* shows the pine forest areas surrounding the landfill and ponds and extending down the left bank of the *discharge tributary* to be subject to mammalian pest control (with no target density). It is unclear whether this vegetation is to be pine or native vegetation, as it is native vegetation that is shown on *Figure 8 Site-wide Ecological and Landscape Plan (Graphic Supplement).* If this is native regeneration it is unclear why it is not subject to predator control with target densities. This requires clarification.

(d) The area to the north of the Wayby Valley Sanctuary to be planted in pine forest is shown on *Figure 8*. We understand this pine forest is part of an agreement with the forestry operator in part mitigation for the loss of some parts of the plantation. We presume that this will also be subject to the same mammalian pest control to complete the coverage of the area surrounding the wetlands, but it does not appear to be shown as such on *Figure 14*.

In closing, Mr Matheson proposed the Northern Valley would be subject to additional protections. We understood the whole of the Waste Management landholding was to have mammalian predator control.

(e) **Mammalian pest control** over Sunnybrook Scenic Reserve to stated densities, (subject to the Director-General's approval). This would create a continuous pest-control coverage from the reserve through to the exclusion-fenced area, also to the adjacent Waitaraire Tributary Block which is on Waste Management property, and right across the western portion of the site, essentially wrapping around the Wayby Valley Sanctuary.

[741] The evidence provides information on the specialised environmental management to be applied to streams to encourage the development of frog habitat, including the creation of small rocky waterfalls, log refugia and the like.

Remaining issues

[742] The issues in relation to the Effects Management Package remaining at the end of the hearing can be summarised as follows.

(a) **Freshwater:** Does the Effects Management Package adequately address the significant adverse effects of removing 12.2 km of intermittent and permanent streams from the site?

(b) **Terrestrial:** Does the Effects Management Package proposed for terrestrial and wetland habitat and species ensure that biodiversity values are maintained or improved?

(c) **Hōteo River and Kaipara Harbour:** Is there potential for adverse ecological effects on the Hōteo River and Kaipara Harbour as a result of sediment, leachate or other discharges and is the risk of such acceptable?

(d) **Tangata whenua relationship values with freshwater and other taonga**.

Freshwater

[743] The Director-General's overall submission was that consent for the proposal should be declined because, among other reasons, the outcome of the offset for stream loss is uncertain. Counsel submitted that the SEV and ECR methods do not account for all ecological values including extent, structure, biodiversity and conservation status. Dr Clearwater and Ms McArthur expounded on the matter. Ms Quinn for Waste Management addressed these concerns in considerable detail.

[744] We note that the SEV method and ECR methods have been in use since circa 2006. The Auckland Council's Technical Report 2001/009 (reprinted 2015) provides the methods used for assessing the ecological functions of Auckland streams. It has been

used frequently in New Zealand, including before this Court, and the method has been published internationally. No other method of assessment has been suggested by the appellants' experts.

[745] The freshwater experts agree the EcIAG provide a framework for assessing the level of effect of an activity both before and after the management of effects (under the effects management hierarchy), and that the Guidelines consider both ecological values and the magnitude of effects.

[746] There are limitations to the EcIAG where large and complex projects are being considered; and expert judgement is required. Dr Clearwater considered there were additional limitations to those discussed and there remained disagreement on the magnitude of effects Ms Quinn had described.

[747] We conclude that that the SEV and ECR parameters and modelling achieve a reasonable determination of stream length/area to offset the loss of the streams from the Landfill Valley. We acknowledge the limitations of using any model, and these need to be viewed in a pragmatic and proportionate way. We find the arguments over the modelling to be unnecessarily technical. The factors in the model appear sensible, the outcomes reasonable, and they help to formulate a response. Here, the response is to improve over four times the length of stream lost.

[748] Ms Quinn included only the permanent and intermittent streams in her calculations of stream length and stream-bed area. The methods used to classify the streams and the length of streams affected were agreed by the experts in conferencing.[193]

[749] Ms Quinn did not include ephemeral streams, saying (and illustrating with photographs) that they provide an overland flow path for only a short period after rainfall rather than providing ongoing freshwater habitat. Two of the appellants' witnesses disagreed, considering that such areas do provide freshwater habitat of value, particularly in the ephemeral upper headwaters (which if added would increase by around 3 km the total stream length to be offset). The two witnesses conceded that they were not aware of any offset or compensation projects that included ephemeral streams.

[750] We conclude that any streams included in the offsite (or onsite) offsets will also be subtended naturally by ephemeral flow paths within the 20 m of riparian vegetation that is planted around the streams. Where the headwater reaches of streams are included in the offset, the ephemeral upstream reach would at least partly be protected within the fenced area. Such ephemeral flow paths will, if the mitigation and compensation works

193 Freshwater ecology and offsetting Joint Witness Statement, 5 May 2022.

are successful, have their values enhanced and protected. In that sense, protection of ephemeral reaches of streams in the offset would provide considerable similar habitat. We conclude the use of permanent and intermittent streams is appropriate at least in this setting.

[751] The experts agreed on several matters regarding salvage and relocation of freshwater fauna – in short:

- They agreed freshwater fauna salvage should be carried out.
- There are few data available on the success or failure of such salvage for mitigation relocation.
- Monitoring such success / failure is challenging.
- Improving access to the streams where salvage will occur will improve success.
- Fish should be prevented by instream barriers from making their way back upstream once removed.
- Observing fauna behaviour during and after salvage and translocation may provide useful information and potentially improve outcomes.
- Changes to the draft Native Freshwater Fish and Fauna Management Plan could be made to improve confidence in the methods and outcomes.
- Macroinvertebrate injury and mortality are not accounted for in the assessment of residual adverse effects and remain unaddressed.

[752] There were differences in opinion as to the degree of injury and mortality of fauna during salvage and translocation, and the likely success of translocation was also at issue. Ms McArthur and Dr Clearwater were of the view that effects on macroinvertebrates have not been accounted for.

[753] Our understanding is that none of the witnesses is proposing the salvage and translocation of macroinvertebrates that must inevitably be lost when streams are reclaimed. We conclude that the proposed stream protection and riparian planting will establish new habitat for macroinvertebrates, fish and other fauna as a component of the offset for the acknowledged loss.

[754] It cannot be known whether the same complement of species will colonise the protected reaches. The intended improvement of water quality in the stream reaches to be rehabilitated and enhanced can be expected to encourage recolonisation by a variety of macroinvertebrate species and fish that favour that improved stream water quality.

[755] The selection of offset stream reaches will be crucial to providing habitat of the necessary value. We presume that headwater and tributary streams will be among those selected and will look for this in conditions if consent is pursued.

[756] Most of the stream protection and enhancement required will be off site, with the final area of stream bed to be determined once the stream locations for the offset and their values have been determined.

[757] Waste Management has not secured landowner agreements for the stream reaches it has identified but indicated it has developed relationships with some landowners and its expectation was that agreements would be finalised if resource consents were to be granted. Waste Management submitted that there is no requirement for such agreements to be in place prior to the granting of consent.

[758] The Director-General's experts strongly contested that without definite locations for stream offsetting in the surrounding catchment there was insufficient certainty as to its outcome.

[759] During the hearing[194] Waste Management strengthened the conditions such that it must be able to demonstrate that there is land available for the offset (via contracts or third-party agreements) prior to initial works being started (i.e., before a sod is turned), thus overcoming the lack of certainty as to the provision of the offset and its location, length and values. This was supported by Ms McArthur subject to the final wording. However, in closing submissions the Director-General was still unconvinced as to whether the wording (and the offset) was secure.

[760] We conclude that if consent is otherwise appropriate, the revised condition should require contracts to be in place.

Interface with KMR project

[761] Kaipara Moana Remediation came into being in July 2021 and is a collaboration of landowners, industries, mana whenua, land-care groups, conservation boards, schools and Crown entities including the Department of Conservation, Ministry for Primary Industries and Ministry for the Environment. We understand that $300 million has been made available to restore and revegetate streams to minimise sediment generation, for remediation of the Kaipara catchment over a ten-year period.

[194] Following a proposed change to condition 123 proffered by Mr Lowe.

[762] At Te Hana Marae we heard from Mr William Wright (Ngāti Whātua) that the fund is intended to provide half of the costs for remediation on a property, with landowners contributing the other half. Mr Wright remarked on the difficulty of finding landowners prepared to fund, for example, fencing of the wetlands or waterways due to the considerable financial cost involved.

[763] The offset for Waste Management's stream loss requires some 50-60 km of stream length, intended to provide a like-for-like offset to the streams destroyed.

[764] Ms Quinn was confident that 50-60 km of stream reaches with the necessary characteristics would be available to Waste Management on the Hōteo without interfering with KMR's initiatives. Unlike the KMR sites, however, Waste Management's landowners will benefit from the 100% funding it proposes.

[765] Waste Management's offset project and the KMR project face similar issues, particularly in relation to finding sites which will not be continually affected by flooding and the destruction of fences and the riparian plantings themselves as has occurred in the past.

[766] Rather than see stream enhancement and protection in the Hōteo catchment carried out by two parties (KMR and Waste Management), the Court's clear preference is for Waste Management to contribute to the KMR effort by providing the other half of the funding required for the KMR-funded stream enhancements, up to the value of the costs Waste Management would encounter if it carried out the revegetation works separately on its own offset streams. With 20 m of riparian planting on either side of 50 km of stream for the offset programme (or more if the length is 60 km) this gives 200 ha to be planted by Waste Management. At an estimated cost of $50,000 per ha for the planting that amounts to $10 million that could be contributed to the KMR programme. This would be subject to a satisfactory agreement being reached by the two parties.

[767] Waste Management's contribution would benefit KMR by encouraging landowners to come on board its scheme without being faced with a significant cost outlay; in addition, the knowledge and expertise of both parties would contribute to betterment of the project overall.

[768] We envisage KMR would be the lead in the project and as a result, that there would continue to be significant input from the Kaipara Uri (Te Uri o Hau, Ngā Maunga Whakahii and Te Iwi o Ngāti Whātua) who are lynchpins in the KMR project, as well as from Ngāti Manuhiri through its future involvement in the Waste Management offset and compensation projects, as appears to be envisaged. This will need to be costed further if

consent is granted.

Stream temperature

[769] Dr Clearwater was concerned that following a period of hot weather, when water in the settlement ponds and wetland would have heated up, a sudden large rainfall event could cause warm water to be discharged to Eastern Stream at first flush with the potential to adversely affect stream biota. Mr Van de Munckhof opined there will be an 80% vegetation cover within the wetland (Pond 1), and although he did not model water temperature specifically for Pond 1 he said he had reviewed the GD05 methods to mitigate water temperature and confirmed that the methods proposed were consistent with them. Monitoring upstream and downstream of the discharge to Eastern Stream is now proposed and should enable temperatures to be checked.

[770] Ms McArthur confirmed that the monitoring of water temperature proposed upstream and downstream of the discharge location would be helpful in showing a temperature rise if it did occur. She acknowledged that in a 95th percentile storm a lot of water would be flowing through the catchment and that would likely mitigate any temperature effects.

[771] In relation to Waitaraire Stream, concerns were expressed by the same witnesses that warm water running off the Access Road and bin exchange area would jeopardise critically endangered species immediately downstream. Monitoring upstream and downstream of the Access Road and bin exchange area is now proposed. Both Dr Clearwater and Ms McArthur had agreed that would be a useful addition to the monitoring programme. If adverse effects on water temperature are noted, this could be addressed either by amendments to management plans or review of the consent.

Terrestrial

[772] Matters on which a level of agreement was reached between the experts include the residual effects on native forest and wetland vegetation, wetland and forest birds, long-tailed bats, lizards and pine forest habitat, as described briefly below. The issue as to the use of the compensation model was never resolved.

Native forest and wetland vegetation

[773] The residual effects of the loss of native forest vegetation will be offset, primarily adjacent to wetlands or streams within the Wayby Valley Sanctuary and in two areas of the Western Block. The loss will be up to 1,240 trees, and the offset will see 79.34 ha of terrestrial vegetation planted, many times the area lost. In the ecologists' caucusing of

11 August 2022 there was no disagreement about either the wetland or terrestrial revegetation proposed. All agreed on methods and principles to achieve appropriate biodiversity outcomes for both, along with the need for robust monitoring and the methods to be used.

Wetland and forest birds

[774] It seems to be agreed by experts that the level of residual effects on wetland and forest birds will be low. Most of the native forest birds were considered common, while the nationally *At Risk* species kākā and kākāriki are likely to be only occasionally present. To minimise effects on forest and wetland birds Waste Management proposed a range of constraints (as conditions) that include avoidance of habitat clearance during the bird breeding season, an earthworks buffer along the wetland edge during breeding season and restriction of operating hours for construction during the breeding season of particular species. It was agreed that the residual effects package would be adequate for managing the effects on them.

[775] There was general agreement among the relevant ecologists that there were well-tested methods for monitoring wetland and forest bird populations and they agreed on details of the monitoring required, however noting that the advice of a biostatistician would be sought on some matters.

Long-tailed bats

[776] In caucusing the four experts on long-tailed bat agreed that because of the highly mobile nature of the animals and their natural variability in activity levels, acoustic monitoring is not likely to assist in determining any effects of the project but could be used to monitor changes in spatial distribution and habitat use. They agreed that a biostatistician would need to be involved if it was intended to monitor such changes. There was no discussion about the proposed conditions that relate to bat monitoring, and we presume the experts are satisfied with them.

[777] Two of the experts considered the money to be set aside for bat monitoring could be better used for bat conservation or research. We note there is no requirement for Waste Management to allocate funds for monitoring or research for its own sake, and careful consideration should be given to the need to monitor in every case (particularly when the value of the outcome is uncertain) given the expense involved. We suggest further thought be given to this proposition if consent is otherwise appropriate.

Lizards (geckos and skinks)

[778] The four lizard experts agreed that the salvage and relocation of lizards and their use of refuges should be monitored along with the outcome of the mammalian pest eradication and control.

[779] They agreed it may be difficult to interpret the outcomes of monitoring given the biology, cryptic behaviour and low density of the lizards, except copper skink, but that monitoring may provide useful information and should be carried out. We note further consideration could be given to the need for monitoring species other than copper skink unless there is a reasonable likelihood of obtaining useful information.

Terrestrial invertebrates

[780] During caucusing two ecologists agreed that rhytid snails, kauri snails and velvet worm should be salvaged and translocated from the Landfill Valley.[195] They said:

> We agree that a comprehensive salvage and relocation program is warranted. We agree that it is unlikely to reduce the overall level of effect since not all terrestrial invertebrates will be captured and there is uncertainty around the degree of survival.
>
> We note that the likelihood of success associated with invertebrate relocations is largely unknown. However, we note that the proposed approach to terrestrial invertebrate salvaging and relocation may generate a higher likelihood of success compared to most mitigation relocations.

[781] It is not clear whether a concerted effort is intended to be made to search for these invertebrates or if salvage and translocation would apply to those found incidentally during the searches for frogs and lizards. The latter seems appropriate to us given it is unlikely that the level of effect on them would be reduced. Kauri snails have been mentioned as having a possible presence, though none were seen during the snail surveys as we understand it. If consent is otherwise appropriate, further consideration should be given to the search effort proposed.

Pine forest habitat

[782] Clearance of the pine forest will be carried out ahead of the normal forestry cycle and its effects are not included in the assessment of effects carried out by Waste Management, however Dr Baber included in his assessment the loss of habitat of creatures that inhabit the floor of the pine forest, including skinks, Hochstetter's frog and invertebrates. The pine trees will be mainly replaced through replanting of pines on the Springhill site near the Wayby South Wetland, the protection of which is part of the Effects Management Package. As above we presume this area will be subject to pest

[195] JWS Lizards, Frogs and Invertebrates 13 May 2022.

management similar to that in the surrounding area outside the predator fence.

[783] We note that any harvesting of the exotic forestry beyond the Landfill Footprint will also have an adverse effect on the same species. Whether this requires a Wildlife Act permit or resource consent was unresolved during the hearing.

[784] The witnesses have discussed the above matters and we conclude that further careful consideration of the need to monitor cryptic fauna will be required if consent is otherwise appropriate. We presume that further conditions would cover the matters agreed (subject to further review).

[785] Matters that remained in dispute were, to a large degree, about Hochstetter's frogs.

Hochstetter's frogs

[786] By the end of the hearing, despite continued misgivings about the use of the biodiversity compensation model to predict the outcome of predator control in the Wayby Valley Sanctuary as described in the previous section, and the difficulties in monitoring the outcome for some species (frogs, bats and lizards in particular), there was a level of agreement between the experts that the effects management proposed could be effective for bats, lizards, birds and wetland vegetation, subject to the details of the mitigation and appropriate monitoring thereafter, and to the conditions proposed.

[787] The Director-General's closing submissions (supported by Royal Forest and Bird) continued to oppose the project because there is a high level of uncertainty as to whether the proposed offsets and compensation will effectively address biodiversity losses. The uncertainties expressed are almost all about Hochstetter's frog.

[788] The appellants' submissions raised the following matters:

- The efficacy of the proposed mammalian pest control to generate sufficient biodiversity gains over the predator-fenced area within which the pests are intended to be eliminated.
- Whether mice can be controlled to a low enough level in the predator-fenced area to render their potential effects on Hochstetter's frog nil or negligible.
- The use of untested methods of habitat creation (such as the use of rocks to create new stream-edge rocky cascade habitat and other manipulations).
- The unknown carrying capacity of frogs in the predator-fenced and Sunnybrook Scenic Reserve areas and whether the addition of frogs salvaged from Landfill

Valley will risk the mortality of the existing frogs in either area by exceeding the habitat's carrying capacity.

- The paucity of demonstrated benefits of predator control for frogs from previous research.
- The degree of ongoing management and oversight by regulatory authorities required where offsetting and compensation are used (with a preference for avoidance at the site selection stage).
- The inability to demonstrate statistically an increase in the frog population if frogs are translocated to those areas where frogs are already present; and the need for a trigger to initiate adaptive management if a population increase is not being demonstrated.

[789] Waste Management's closing submissions responded as follows:

- There is a very limited number of rocky cascades in Landfill Valley [i.e., there is a limited amount of 'ideal' habitat for frogs there].
- The proposed predator-fenced area and Sunnybrook Scenic Reserve contain habitat and rocky cascades of significant value to frogs, plus new rocky cascades will be created.
- The predator-fenced area will have the proposed high level of protection (amounting to elimination) in perpetuity or until it can be shown that a 40 km pest-free buffer exists around it (on the premise that other large-area or national pest control initiatives may be implemented successfully in the longer term).
- The predator and pest control methods are proven – for both predator elimination in the fenced area and for intensive pest control in the unfenced Sunnybrook Scenic Reserve area.
- Mouse control is proposed and the predator management plan, which includes mice, is comprehensive and detailed.
- If 500-2000 frogs are present within the approximately 1.9 km length of stream estimated to support them, at a landscape scale that is 0.8% of the habitat of the Southern Clade of Northland Evolutionarily Significant Unit of Hochstetter's frog and is mostly in pine forest, which is less suitable habitat for the frog due to periodic forest harvesting and disturbance of the frog's riparian and aquatic habitat.

[790] Considerable evidence was presented in relation to the above matters and we discuss it below under a series of questions as to the frogs' distribution, abundance, habitat, behaviour, protection and monitoring.

[791] Three surveys completed since 2019, most recently in 2022, show that Hochstetter's frog is widely but sparsely and patchily distributed across the Waste Management land holdings in pine forest including in Landfill Valley. Previous surveys by the Department of Conservation demonstrate they are found scattered through the Dome Forest in both native forest and pine forest.

[792] Dr Baber's Hochstetter's frog survey report (2022) says that 1,950 m of stream reach in the Landfill Valley was searched with over half the frogs (56.7%) found under vegetation with fewer (23.6%) under rocks or woody debris and the least in crevices. Four times as many frogs were found in wattle and native forest than in pine forest. The total number of frogs recorded over three surveys in all surveyed locations was approximately 173, on our count.

- In the Landfill Valley pine forest 15 frogs were found over three surveys; in the pine forestry blocks 17 were found over two surveys;

- In native forest on the margins of the pine forestry blocks 25 were found in one survey. In the proposed predator-fence area 55 frogs were found over three surveys, mostly at the eastern end and some in small eastern tributaries of the Wayby South wetland and in wattle forest as well as regenerating native forest.

- In the north-western native forest within the Waste Management site 19 frogs were found (16 in 2022, three in the two other surveys). In Sunnybrook Scenic Reserve 42 frogs were found in 2022.

[793] Given the scale of surveys and the cryptic nature of the species, estimates of frog numbers in the Landfill Valley must be broad. We conclude that a loss of around 1,000 Hochstetter's frogs is a reasonable estimate.

[794] The Director-General's experts considered there is uncertainty about the recovery of frogs in the Wayby Valley Sanctuary and the other predator controlled areas, raising concerns about:

(a) the effectiveness of predator control;

(b) the availability of sufficient habitat for a population increase; and

(c) the degree to which the frogs will use restored and revegetated stream habitat.

[795] We were told that a study regarding Hochstetter's frog in a predator-fenced area at Maungatautari Mountain found, over a three-year period following pest eradication, a four-fold increase in both the number of frogs and their spatial extent. Further, pest control at Maungatautari did not include the House Mouse which was present in low numbers. The study also remarked that the stream-side habitat Hochstetter's frog prefers was *extremely dynamic* with the *thorough reworking of streamside litter and rocks by flood events*. The authors cited a previous paper that indicated the frogs move away from streams during floods and can disperse long distances away from waterways.[196]

[796] The lowland streams in pasture that are to be revegetated within the Wayby Valley Sanctuary may take some years to [or may never] develop the type of hard-bottomed habitat that the frogs are said to prefer. However, Mr Dylan van Winkel has observed that Hochstetter's frogs are not limited to shaded bedrock streams, are tolerant of lower value habitat, and can disperse through unshaded pasture streams and where dense grass cover shades the stream channel. He cited other studies that have suggested frogs can move widely within and between streams and through marginal terrestrial habitats. It is clear, however, that frogs must at times be close to streams/ water as their life cycle depends on that.

[797] The above goes to our understanding of the potential for frogs to move around, and potentially to establish and multiply if translocated into areas of suitable habitat where recent surveys found few frogs. In the Maungatautari case the absence of frogs in the first survey from habitat that they occupied in the second survey suggests that the reason for their absence was not lack of suitable habitat but their vulnerability to predators.

[798] In the Wayby Valley Sanctuary case we must ask whether it is safe to assume that frogs translocated into appropriate habitat in that area will not adversely affect an established population if present.

[799] In relation to the potential number of frogs that may be salvaged and translocated, Mr van Winkel noted that Dr Baber's high residual effect for frog demise is based on the conservative assumption used in the compensation modelling that there will be limited (or zero) success of translocation. Dr Baber noted that mitigation-driven herpetofauna translocation is generally considered to have around 15% chance of success, citing Dr Jennifer Germano's evidence from the Council hearing evidence in that regard.

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[196] Longson, C. G., Brejaart, R., Baber, M.J., Babbitt, K. J. *'Rapid recovery of a population of cryptic and evolutionarily distinct Hochstetter's frog, Leiopelma hochstetteri, in a pest-free environment'* (2017) 18(1) Ecological Management and Restoration 26-31.

[800] Wayby Valley Sanctuary is unlikely to be at carrying capacity for Hochstetter's frog because the area has had no predator control, such that translocated frogs may be supported there. The ecologists agreed that the proposed predator-fenced area currently supports the full range of mammalian predators that are present in the Auckland region, that they are likely influencing the population of frogs at the site, and that, at a high level, revegetation and pest management are beneficial to Hochstetter's frog.

[801] The existing frog population is expected to increase following pest control as has occurred at Maungatautari. We conclude it likely that the revegetated tributaries and slopes above the wetland area within the fence will also, in time, afford further habitat for frogs. In the longer term, the provision of new habitat to the south of the Wayby South Wetland may be expected to provide habitat for frogs.

[802] We conclude that the rate of population increase in any of the areas subject to the pest control programme is unknowable. Predator control and habitat creation are both well-used weapons in the arsenal available for species protection and recovery. However, in our view frog population recovery from the landfill losses needs to be progressing in the short term with demonstrable population increases in the medium term (which we suggest appears to be 6-8 years).

[803] Waste Management's management plan provides several levels of defence against predation both within and outside the property, as described by Dr Helen Blackie and Mr Roger MacGibbon (both called by Waste Management). These include:

- The fence itself, 7.6 km in length, designed to recognised standards proven successful in NZ (including at Karori Wildlife Sanctuary, Mt Bruce Wildlife Centre, Cape Kidnappers Sanctuary and Maungatautari Sanctuary) by an experienced practitioner. It is divided into two cells to allow the construction of a bridge on the Access Road to the landfill.

- Predator control within the fence to a high level to eradicate pests at the outset, including mice, with ongoing controls and monitoring to prevent incursion, and to identify and eliminate intruders should they penetrate the fence.

- A detailed pest monitoring programme to ensure pests do not re-invade and to respond to any incursions.

- Additional predator control to achieve the predator density reduction targets set for Sunnybrook Scenic Reserve, Waitaraire Tributary Block and along the western edge of the predator fence, which effectively encircle the fenced area to minimise the potential for reinvasion.

- The pest management programme is to run for the life of the landfill and in perpetuity or to a time when national or regional predator control programmes have been developed to the extent that a 40 km predator-free buffer around the pest management area can be demonstrated. We heard evidence from Dr Blackie as to the progress being made in developing such large-scale predator control, but be that as it may, the in-perpetuity control is proposed to be enshrined by conditions of consent. We note the intended involvement of Ngāti Manuhiri in the ongoing work.

[804] The pest control experts agreed that *the animal pest control proposed for this project is at a high standard and of high intensity*.[197] The ability of the predator fence to exclude mice was raised as an issue, although Dr Germano said that some recent research may indicate a more promising outcome than she had previously entertained. Mr MacGibbon's evidence is that mice will be excluded through the use of appropriate fence materials, and Dr Blackie has specified pest protection to eliminate mice and monitor for them.

[805] We conclude that frog populations in the predator-fenced area and in the Sunnybrook Scenic Reserve, both to be subject to increased predator control, will improve. The issue is over what period a net gain will be achieved over the loss from the landfill area.

How will Waste Management demonstrate an increase in frog numbers or trigger contingency steps?

[806] The population of existing frogs in the predator-fenced area is expected to increase, and monitoring is to be carried out there to assess the outcome of predator control. The translocation of additional frogs to that area from the Landfill Valley poses some issues for the success of monitoring the existing population and also for the translocated population (of whatever size that may turn out to be).

[807] After receiving advice from an independent statistician, the ecologists confirmed[198] that it would be possible to design a monitoring programme to allow statistical analysis of frog numbers in the predator-fenced pest eradication area and the pest control sites (Sunnybrook Scenic Reserve and on Waste Management property) – but only if frogs were **not** translocated from the Landfill Valley to those areas. They agreed that it would be preferable to translocate the frogs elsewhere, to enable the statistical method to be adopted. Hauturu|Little Barrier Island was posited as a release site.

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[197] JWS Pest Control, 18 August 2022.
[198] JWS Ecologists, 10 November 2023, at 1.1.

[808] Ngāti Manuhiri did not support the translocation of frogs to Hauturu or out of their rohe and the Director-General respects that position. Ngāti Manuhiri stated in their closing submissions that, according to their tikanga, the predator-fenced area is an appropriate site for release of taonga species. In Waste Management's closing submission Mr Matheson said the company has decided to release frogs into the predator-fenced sanctuary (despite the confounding effect that will have on the statistical analysis of its monitoring results).

[809] Ngāti Manuhiri's response is an important consideration, in part because of the previously limited to no input Ngāti Manuhiri and other iwi have been able to have as to the discussion of ecological values and management in their rohe. Also, Dr Laurence Barea (called by the Director-General) and Dr Fleur Maseyk (called by Ngāti Whātua) considered stake-holder involvement in decision-making to be a preferred means of determining appropriate management when a quantifiable offset cannot be calculated.

[810] In this instance, despite the confounding effect translocation of frogs will have on the statistical design proposed for monitoring, engagement with Ngāti Manuhiri during the hearing has led to a decision with which they are satisfied, and that the Director-General appears to have accepted (if that is what respect means in this context). A practicable means by which to monitor the frog population and interpret the result is now needed.

[811] A monitoring programme is provided in proposed condition 119. The monitoring proposed would quantify the relative abundance of frogs found within 96 stream reaches in sites including Landfill Valley, the predator fenced area, the other predator-controlled sites on Waste Management land, the Sunnybrook Scenic Reserve, the Dome Forest and in pasture streams.

[812] The search effort during these surveys must of necessity be carefully undertaken to avoid damaging either the frogs or their habitat. Mr van Winkel estimated 500-2000 frogs may be currently present in the Landfill Valley. The number found during searches to be carried out in advance of logging and pre-construction, in comparison with the numbers previously observed during the purposely light-handed surveys carried out in the past when habitat destruction was minimised to the greatest extent practicable, may shed new light on the apparently large divide between frog numbers observed during surveys and those actually present.

[813] The surveys would use standard single-transect monitoring techniques used in previous frog surveys described by Dr Baber, with visual estimation within 50 m stream reaches. Monitoring will be carried out in three-yearly cycles, with one third of sites

surveyed every year so that each monitoring site is surveyed at three-year intervals.

[814] Our understanding is that it will not be possible to separately identify the existing frogs and progeny and the translocated frogs and progeny to assess the success or otherwise of translocation statistically, from the monitoring results. The results of monitoring will, however, provide population increase data based on total numbers of frogs found. It is not clear to us whether some means may be found by which monitoring results may be attributed to different areas within the ecological management area (fenced, unfenced, currently native forest, currently pasture, under regeneration, frogs already present/not present, etc.).

[815] At worst it seems the combined number of frogs in the monitoring areas at the commencement of the project once translocation is complete could be considered as a single founder population, with monitoring outcomes recorded against the original populations in various of the predator controlled areas.

[816] The Director-General's closing submissions note:[199]

> …although there is expected benefit to Hochstetter's frogs through the revegetation and predator control, the extent of the benefit is unknown and will depend on the success of the efforts. The proposal shifts the risk of management failure out to 25 to 30 years" and that "given existing pressure on this species, including from climate change, it will be more difficult to redress the losses in this future time period.

[817] We agree that there are uncertainties around the management of frogs and the degree to which the predicted frog population increases will occur. We conclude it is likely that predator control will lead to an increase in frog numbers in the predator-fenced area as well as in Sunnybrook Scenic Reserve and other similar areas of existing frog habitat subject to predator control.

[818] We cannot be fully satisfied that this will occur. Monitoring will be necessary to ensure that numbers (in absolute terms) are at or above the pre-development levels within a reasonable timeframe.

[819] This requires monitoring and levels of redundancy. Without further provision for, protection of, and increases in another population the Court would not approve the application. In short, the mauri of this area depends in part on the replacement and improvement of habitat and population of Hochstetter's frogs.

[820] We now return to the proposal made by Waste Management in closing submissions to revegetate the riparian margins of streams in the Northern Valley with

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199 Director-General's closing submissions, dated 14 April 2023, at [79].

native species and to protect the area. We understand frogs are present in or adjacent to those streams. This work could provide the assurance this Court requires that mauri and the Hochstetter's frog population as taonga could be maintained or improved.

[821] It amounts to front-loading a contingency action that might have been offered in future if frog population increases in the enhancement and protection areas to the east do not reach the numbers estimated or required.

[822] We conclude that protection of the exotic forest area in the Northern Valley in the medium term (for, say, 7-10 years) with predator control and exclusion fencing for deer, pigs and the like, would give us confidence that the protection of Hochstetter's frogs and improvement to their population will occur in their natural environment.

[823] The potential for further cessation of forestry in the Northern Valley would be dependent on future decisions (and on monitoring showing an improved population of Hochstetter's frogs and habitat within the valley and on the site as a whole).

Required outcomes – terrestrial and freshwater ecology

[824] We conclude that the outcome to be achieved must be a net population increase. This requires some means to demonstrate on a pragmatic and proportionate basis that the taonga species are demonstrably in a better situation after the works than before. Clearly, a model can do no more than estimate an outcome. The compensation model was an appropriate method in the current circumstances. However, there must be high confidence in a robust outcome within the short to medium term. The Effects Management Package with the monitoring summarised above (or improved on further consideration by the experts) coupled with additional protection of frogs and frog habitat in the Northern Valley approaches that level of confidence. We have yet to be satisfied that the conditions apply the proposals that Waste Management relies upon.

Marine ecology - sediment discharges and effects

[825] The Director-General's closing submissions indicated that Mr Duffy had reached a level of agreement with Mr Cameron as to the potential effects of sediment in the Kaipara moana. Mr Cameron had said there would be a negligible effect on the zone of influence in the Hōteo mouth during the construction and operational phase or there could be an improvement in sediment concentrations during the operational phase compared to the current levels. But Mr Duffy indicated there could be a significant effect on the zone of influence if there was more than a minor failure of the sediment controls. Questions arose in the cross-examination of Mr Duffy as to whether Mr Cameron had made his assessment based on a 95% efficiency of removing total suspended solids, to

which Mr Duffy responded that that was potentially a best-case scenario.

[826] In further cross examination by Mr Matheson, Mr Duffy was taken through a report by Mr Van de Munckhof that provided for comparison sediment load volumes based on 75% efficiency (Revised Sediment Calculations). That report provided, for year 1, that 563.5 tonnes of sediment will be discharged to the Hōteo River. Compared to the average total sediment load currently from the Hōteo River to the Kaipara Harbour of between 33,000 tonnes and 73,467 tonnes per year (based on modelling and actual monitoring records) Mr Duffy agreed that even if all of the sediment being discharged from the site reached the Kaipara Harbour, the 563 tonnes of sediment was a small proportion of the current loads and would be very difficult to detect. In terms of whether any sediment load more than minor would have a significant effect on the Kaipara Harbour he agreed that quite a catastrophic event would be needed, and he accepted that was unlikely given the information on the design of the landfill.

[827] For the Court, the issue is certainty, and the avoidance of risk of sediment (or leachate) reaching the Hōteo and or the Kaipara. It is in part for this reason we consider further fail-safes along the existing stream from the landfill need to be provided.

[828] While dealing with extreme events or risks, the assurance required addresses both the mauri of this area and the potential effect on tangata whenua values downstream in the Hōteo and Kaipara.

[829] The marine ecologists in caucusing also touched on the issue of whether the pine forest harvesting to take place just before and during the commencement of construction would cause cumulative effects.

[830] Again, a proactive approach to sediment control will limit any effect on mauri of the site or river. If a diversion system below the settlement ponds was adopted, as suggested, this might even be utilised during forestry clearance. Furthermore, the retention of trees in the Northern Valley for 7-10 years would mean the sediment discharge would go through the settlement system and reduce overall discharge from the site.

[831] As set out under our finding on sediment management, we conclude that a comprehensive management and monitoring regime, along with the condition requiring a positive balance of sediment discharge, satisfies us that the effects of sediment discharges on the Hōteo River and Kaipara Harbour would not adversely affect the river or the harbour's ecology to more than a negligible degree.

Risk and tangata whenua values

[832] It was common ground that granting consent results in significant adverse effects to Ngāti Whātua o Kaipara, Ngāti Whātua Ōrākei and Te Uri o Hau. A similar scale of impact was acknowledged for Ngāti Manuhiri.

[833] At the commencement of the hearing the biodiversity experts agreed that there will be significant effects on freshwater ecology (stream reclamation and wetlands) and terrestrial ecology (including taonga species such as pepeketua|Hochstetter's frog and pekapeka|long tailed bat). Broad agreement was also reached in respect of the freshwater receiving environment values, generally considered (depending on location) to be high or very high.

[834] Residual biodiversity effects following implementation of the offset/ compensation package were not agreed, including a range of uncertainties as to the adequacy of controls to address freshwater ecology effects and the magnitude of those effects. Experts were not agreed as to whether Waste Management could deliver a net gain for biodiversity, habitat and sediment effects on Hōteo and Kaipara moana.

[835] We have now assessed the effects of the proposal on freshwater ecology and terrestrial ecology. The direct physical effects are clear. Intangible effects have been described to us by the cultural witnesses as set out earlier in this decision. Risks of particular concern have been identified – especially leachate escape during the life of the landfill and following its closure, and sediment discharge.

[836] We have addressed the risk of leachate escape and determined that it is a low risk. Even in heavy rainfall the proposed stormwater system is such that an escape of leachate is also low risk. However, it was clear that from iwi's perspective the risk of leachate escape has significant consequences for their cultural values. In other words those events, although low probability, would have significant impact if they occur. For tangata whenua the risk remains as an impediment to their relationship with the values of the site.

[837] We have addressed the effects of the proposed sediment discharges into the Hōteo and the Kaipara. We have determined that the likelihood of a greater sediment discharge in the event of storm or other events is small. There are layers of defence that will guard against that. However, a major failure remains a possibility and we were given no evidence as to the Factor of Safety or engineering redundancy built into the design. Again, however, from residents and iwi's perspective any effects of sediment discharges are unacceptable.

[838] MKCT consider their involvement will help ensure proper design and operation to avoid risk. Other tangata whenua say that awareness of risk can adversely impact cultural belief systems, reasonably held, and relationships between parties. It was pointed out by Mr Pihema that no-one knows for certain that the proposed site will not cause or create any issues for the environment and in the Kaipara, but Ngāti Whātua is concerned the landfill is sitting above Ngāti Whātua, and that impacts on whanaungatanga between Ngāti Manuhiri and Ngāti Whātua may occur and they will have to live with the consequences.

[839] Mr Riwaka said that the risks and impacts associated with establishing the landfill are just too great when you consider how important the Kaipara moana is to their people.

[840] The question for us is whether the particular risk can be reduced further or otherwise is acceptable through conditions or management plans. We acknowledge that the spectre of a leachate escape looms large for iwi, and that the risks weigh heavily on them. We have described earlier that the likelihood of such a failure is low, and that the circumstances that could drive such a failure have been considered. Ngāti Manuhiri has determined that the risk is acceptable to them. The other iwi groups who sit 'downstream' of the landfill have not.

[841] We cannot discount the effects on Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau who remain concerned about the proposal, however MKCT agreement for the works to take place in their rohe signifies that they see benefits for both the environment and themselves.

[842] Everyone accepts that the current status of the Hōteo and its mouth on the Kaipara Harbour is degraded, as is the landfill site, and that the latter is by no means a high quality environment for native terrestrial and freshwater fauna, even though populations have managed to persist over forestry cycles.

[843] The question remains as to the effects on the mauri of freshwater, and tangata whenua's relationship with that and other taonga. We will return to that when we come to our overall assessment.

K. Statutory assessment – s 104

Effects (s 104(1)(a) and (ab))

[844] We have assessed the effects of the proposed landfill in section J. We have found that there are potential significant adverse effects but also positive effects including potential net gains for biodiversity.

Other relevant matters (s 104(1)(c))

[845] We have outlined other legislation that impacts the proposal. We observe:

- the Waste Minimisation legislation does not make any statutory body responsible for waste disposal – while a Waste Minimisation Plan must be prepared, there is no obligation to implement it;
- the Wildlife Act is engaged if any of the fauna to which it applies are endangered;
- Forestry harvesting may occur if the operator complies with the NES-Commercial Forestry. We do not know if the application of those standards would ensure the protection of the endangered species located in the Landfill Valley during harvesting. Evidence was that they would not, although the Wildlife Act is partially engaged.

Plan Provisions in Relation to s 104(1) and s 104D

Is the application contrary to the objectives and policies under s 104D(1)(b)?

[846] The term contrary to is a high bar, defined as something that is opposed in nature, different or opposite, repugnant to or antagonistic.[200]

[847] Waste Management argued that the correct approach to s 104D(1)(b) is to assess the objectives and policies as a whole rather than compare them to the activity on an individual basis.[201] For an activity (identified holistically) to be contrary to the objectives and policies, there needs to be more than non-compliance with a single provision,[202] and the assessment must be made, not in isolation but in the context of the AUP as a whole. Mr Matheson submitted that this is particularly so where, for large infrastructure like the proposed landfill, it is inevitable that an activity is contrary to some objectives and policies.

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[200] *NZ Rail Ltd v Marlborough District Council* [1994] NZRMA 70, at p11 and Waste Management, opening submissions, dated 13 June 2022, at [5.9].
[201] *Akaroa Civic Trust v Christchurch City Council* (***Akaroa***) [2010] NZEnvC 110 at [74].
[202] *Akaroa* at [74].

[848] Waste Management submitted that the approach to be taken in considering applications for resource consent is outlined by the Court of Appeal in *RJ Davidson Family Trust v Marlborough District Council*[203] which stated:

> [73] We consider a similar approach should be taken in cases involving applications for resource consent falling for consideration under other kinds of regional plans and district plans. In all such cases the relevant plan provisions should be considered and brought to bear on the application in accordance with s 104(1)(b). A relevant plan provision is not properly had regard to (statutory obligation) if it is simply considered for the purpose of putting it on one side. Consent authorities are used to the approach that is required in assessing the merits of an application against the relevant objectives and policies in a plan. What is required is what Tipping J referred to as "a fair appraisal of the objectives and policies read as a whole.
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> Footnote excluded

[849] Waste Management submitted that in any assessment of contrariness the Court should place the landfill's effects in their proper context, both in terms of the nature of the affected resource and the nature of the proposed activity giving rise to those effects. It said, as many people have commented: *In law, context is everything.*[204]

[850] Royal Forest and Bird, supported by the other appellants, argues that breach of a significant directive policy means the activity is contrary to the objectives and policies as a whole, and also submits that it is not one directive policy that is breached here – there are a number of directive policies that are breached. The issue then is which (if any) of these directive policies are key or significant in terms of the whole Plan.

[851] Royal Forest and Bird agrees that relevant objectives and policies should be identified and assessed. It notes that is entirely consistent with the approach set out in *King Salmon*, so long as that fair appraisal is reached based on the words of the policy instrument (as occurred in *Dye*)[205] and not on an overall judgement approach that is not anchored to the language of the policies.[206] It referred to the High Court's decision in *Tauranga Environmental Protection Society* which, it says, affirmed that the focus should be on the text as opposed to an overall judgement:[207]

> …the RMA envisages that planning documents may (or may not) contain "environmental bottom lines" that may determine the outcome of an application. This illustrates why it is important to focus on, and apply, the text of the planning instruments rather than simply mentioning them in reaching some "overall judgement".

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[203] *RJ Davidson Family Trust v Marlborough District Council* [2018] NZCA 316 at [73].
[204] Waste Management, opening submissions, dated 13 June 2022, at [5.5]-[5.14].
[205] *Dye v Auckland Regional Council* [2002] NZLR 337 (CA).
[206] *Tauranga Environmental Protection Society*, at [77].
[207] *Tauranga Environmental Protection Society*, at [93].

[852] Waste Management acknowledges that the Court needs to pay close attention to the wording of specific objectives and policies, particularly where they are directive, and reconcile those against others in the AUP where there may be conflict. It observes, however, that the Court must still make its s 104D assessment of the AUP as a whole and as a fair and full appraisal.

[853] Royal Forest and Bird submitted that the Supreme Court's findings in *King Salmon* should be applied when interpreting objectives and policies:[208]

(a) the language of directive policies is determinative. Various policies are not inevitably in conflict or pulling in different directions. Avoid is a strong word, meaning not allow or prevent the occurrence of. What is inappropriate is to be assessed against the characteristics of the environment that the policies seek to preserve;

(b) terms that have more flexibility in how they are implemented and are less prescriptive include: take account of, take into account, have (particular) regard to, consider, recognise, promote, encourage, as far as practicable, where practicable (noting that there are strict parameters around practicable), where practicable and reasonable, taking all practicable steps, no practicable alternative methods;

(c) in contrast, terms that are specific, directive, and unqualified, and leave little or no flexibility in how they are implemented include avoid, protect, do not allow, directed to;

(d) policies expressed in more directive terms will carry greater weight than those expressed in less directive terms. The policy may be stated in such directive terms that the decision-maker has no option but to implement it;

(e) there may be instances where policies pull in different directions. This is likely to occur infrequently, and it may be that an apparent conflict between policies will dissolve if close attention is paid to their expression);

(f) only if conflict remains after the analysis is undertaken is there justification for reaching a determination which has one policy prevailing over another. The area of conflict should be kept as narrow as possible;

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[208] *King Salmon* at [126], [127], [129] and [130].

(g) enabling provisions that provide scope for choices as to how and where the proposal occurs do not prevail over directive policies that require avoidance of adverse effects.[209]

[854] Royal Forest and Bird submits that, unlike s 104(1), which involves consideration of wider planning instruments, the considerations in s 104D(1)(b) are circumscribed to the objectives and policies of the relevant Plan. Despite this, clause 1.3(2) of the NPS-FM 2020 states that Te Mana o te Wai is relevant to all freshwater management and not just specific aspects of freshwater management referred to in the NPS-FM. Royal Forest and Bird submits that while the proposal is not to be directly assessed against Te Mana o te Wai under s 104D(1)(b), it may assist in construing the objectives and policies of the AUP.

[855] The parties drew our attention to a recent decision (currently under appeal) of the High Court in *Royal Forest and Bird Protection Society of NZ Inc v New Zealand Transport Agency*.[210] That was an appeal on questions of law arising from the decision of a Board of Inquiry in relation to the East-West Link project. It involved approximately 18.3 ha of reclamation of the Māngere Inlet, including areas within the AUP's Significant Ecological Area overlay.

[856] Royal Forest and Bird submitted that, in that case, the Board of Inquiry had no jurisdiction to consider the merits of the proposed East-West Link. That was because when the provisions of the AUP were properly reconciled, in the manner required by the Supreme Court's decision in *King Salmon*, the particular policies with which the East-West Link would not comply imposed mandatory bottom lines and 'trumped' all other objectives and policies. Royal Forest and Bird argued that this meant that East-West Link was contrary to the objectives and policies of the AUP and did not meet the gateway test in s 104D(1)(b) of the RMA.

[857] We record that the High Court accepted that, in effect, there was no substantive difference in approach required to a plan's objectives and policies as a result of the decision in *King Salmon*.[211] Simply because the East-West Link was inconsistent with discrete parts of the AUP did not necessarily mean that the proposal was contrary to the objectives and policies of the AUP for the purposes of s 104D(1)(b) of the RMA. Rather, the High Court found that all of the objectives and policies had to be considered comprehensively and, where possible, appropriately reconciled.[212]

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[209] *King Salmon* at [126] – [131].
[210] *Royal Forest and Bird Protection Society of NZ Inc v New Zealand Transport Agency* [2021] NZHC 390.
[211] *Royal Forest and Bird*, at [39].
[212] *Royal Forest and Bird* at [29]-[30] and [43].

[858] We determine that the correct approach is that it is appropriate for all objectives and policies to be considered comprehensively and reconciled if possible where the provisions pull in different directions.

[859] We see this approach as requiring the Court to give attention to the structure and wording of the objectives and policies as a whole to identify those objectives and policies that are central, key or significant to an understanding of those provisions. We conclude this interpretation is consistent with both the *King Salmon* and *Port Otago* Supreme Court decisions.

[860] We later discuss the concept of avoid material harm used in *Port Otago*. For current purposes, we note the Supreme Court considered that a detailed analysis was required to address this issue at a Plan level.

[861] We do not understand the *Port Otago* case to derogate from the approach to the assessment of objectives and policies described above. Having looked at all parties' submissions, we cannot discern a substantive difference to the approach outlined above.

[862] We conclude that the purpose of s 104D(1)(b) is not to conduct a tick-box exercise against each policy and objective. There needs to be a focussed attention on the key objectives and policies of the AUP. We find that the elements on which Waste Management relies are more in the nature of operational needs or preferences than functional needs, as those terms are defined in the AUP.

[863] We list our findings generally from earlier in the decision on objectives and policies:

A. The NPS-FM 2020 and as amended in 2023 seeks to restore and preserve the balance between the water, the wider environment and the community. Te Mana o te Wai is all about restoring and preserving that balance. It seeks first to protect and then restore the mauri of the waters.

B. The weight to be attached to Policy 3.22(i) – extent of inland wetlands, 3.24 – extent of rivers and 3.26 – fish passage, is in dispute and needs to be resolved.

C. The changed legislative environment is part of the context in which we must assess the AUP's objectives and policies. However, it informs rather than dictates the outcome of the assessment under s 104D(1)(b) looking at objectives and policies of the AUP. These changes are also relevant to any substantive assessment.

D. The various issues raised in the NZCPS are subsumed within the AUP.

E. The need for new infrastructure is recognised where:

(i) there is a functional and operational need for it to be located in areas with particular natural and physical resources which have been identified in the AUP that otherwise preclude development;

(ii) its operation should be enabled while managing adverse effects.

F. There is a centrality of Māori worldview contained within the RPS. This seeks to maintain, and where appropriate enhance, freshwater systems, mauri of areas and the relationship of tangata whenua with important features. It does not preclude development but anticipates that adverse effects will be addressed and freshwater systems restored and enhanced where that is possible.

G. The objectives and policies reinforce the importance of freshwater and sediment quality being either maintained at an excellent level or improved over time. The AUP also identifies issues from the RPS relating to the mauri of freshwater being maintained or progressively improved over time. This is further reinforced by the NPS-FM 2020 and NPS-FM 2023.

H. E3 recognises the tension between development and the objectives to preserve quality environments and improve those that are degraded. There is still an emphasis on avoidance, remediation or mitigation, although the NPS-FM 2020 (see Policies (17) and (18)) recognises the application of an effects management hierarchy.

I. E13 is directed to avoiding contaminants from the landfill activity reaching land or water, including groundwater, beyond the Site. This includes those which can either be borne in water, leachates, sediments etc, or are caused by the activities themselves which then leads to the discharge such as the construction of roads or dams. The requirement to avoid adverse effects in itself identifies that this is not a prohibition against new landfills, but a requirement as to the total internalisation of adverse effects.

J. The policies require protection of indigenous vegetation in sensitive environments and the management of activities to avoid significant adverse effects on biodiversity where practicable. There is clear encouragement to use the effects management hierarchy to manage effects that cannot be avoided, remedied or

mitigated, including encouragement of the use of offsetting.

[864] The findings on the RPS are not the focus of the s 104D evaluation. However we found RPS policy B7.3.2(4) helpful in giving a succinct statement of the approach relevant to a case such as this. Overall we conclude that the other relevant regional and district objectives and policies fit into this framework as they relate to water and even biodiversity generally.

[865] Policy B7.3.2(4) states:

> 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) no practicable alternatives exist;
>
> (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 or off-site works are provided.

[866] We have already made our findings in respect of the objectives and policies and have also reached conclusions in respect of a whole range of effects, many of which are not directly necessary in considering s 104D(1)(b). The short point that we have already identified is that we must be satisfied that the application avoids material harm from the adverse effects of discharges to water or land from the Site and the removal/reclamation of a stream or streams.

[867] The level of certainty in that regard must be high given the clear significant adverse consequences. In short, if we conclude substantively that *material harm* is avoided, then the application will not be contrary to that key policy thrust. Because of the relationship between effects and the policy provisions, it is not fair to say simply by applying the objectives and policies that an application is contrary to them. This requires a nuanced evaluation of both the objectives and policies and the effects.

[868] The other major policy thrust relates to the maintenance and net gain/restoration of the mauri and the biodiversity on this Site. We must be satisfied that the evidence, including the offset and compensation evidence, will lead to those outcomes.

[869] Again, this is difficult to evaluate in an objectives and policies sense given that the objectives and policies themselves indicate the availability of various alternative methods of achieving avoidance of material harm, including restoration or improvement. This is largely due to the way in which the AUP is drafted.

[870] There is agreement that all of the provisions need to be looked at holistically. Words need to be given their full and proper meaning but in the context of a complex, multifaceted AUP. There was extensive evidence and argument on these matters. Given their importance to the arguments made by the parties we have addressed key provisions separately. We note, however, that they do not stand apart from the rest of the AUP and other objectives and policies – they were simply the focus of the appellants' opposition to the proposal.

[871] Viewed through the lens of the Supreme Court decision in *Port Otago*, the first question for us is can this activity and application avoid material harm from discharges of contaminants, sediment and soils? That requires us to be satisfied that there can be such outcomes, which then turns on the issue of merit rather than to the question of whether the application is contrary to the objectives and policies. While the appellants argued that E13 is not limited to discharges, we have found that clearly, it is.

[872] We have found that many provisions in the AUP are engaged by this proposal. We have considered all provisions and identified those we consider to be core to our assessment. No priority is given to one provision over another, though the language of certain provisions is more directive than it is for others.

[873] There is a tension in the AUP between infrastructure and provisions directed at protecting the environment – in its broadest sense. We have found that the AUP enables infrastructure because of its importance to communities, with certain qualifying matters to be addressed in assessing effects as we have already described. Other chapters directed at protecting water bodies from degradation or loss, and maintaining or enhancing indigenous biodiversity values, permit certain activities and limit others. There are qualified exceptions for infrastructure predicated on various matters being satisfied.

[874] Waste Management addresses these issues by a combination of avoidance of some key areas, a significant improvement of the degradation on the Springhill site in relation to the wetlands, improvement in the Hōteo River by funding riparian planting of approximately 50 km of waterway and taking steps to either avoid species loss or mitigate that loss on the site. It provides the large Wayby Valley Sanctuary as compensation for the effects on a range of habitats and fauna, along with the planting of areas of native forest and vegetation.

[875] We also note the strong direction of objectives and policies towards the mauri of the freshwater environment, tangata whenua values and other relationships with taonga. Nevertheless these should not preclude tangata whenua from achieving broader objectives in appropriate circumstances.

[876] The provisions upon which focus has been placed – addressing effects on the mauri of freshwater, river loss, loss of inland wetlands and impact on indigenous biodiversity, are clearly relevant to the tone of the AUP in this case.

[877] However, we do not ignore those provisions that encourage restoration and enhancement of the mauri of freshwater and native planting, among others, for they are forward looking and recognise that some water environments such as the Hōteo and Kaipara are not healthy and need improvement.

[878] We conclude that the objectives and policies are not in conflict. They enable certain types of use and development where certain environmental outcomes can be achieved. This follows from the concept of sustainable management in Part 2 and the AUP. Put bluntly the AUP sees infrastructure such as landfills justifiable where they can avoid adverse effects (material harm). Whether this proposal can do that is not an issue under s 104D(1)(b) but rather requiring careful evaluation under s 104(1).

[879] Accordingly, we conclude that the proposed landfill is not contrary to the objectives and policies of the AUP under s 104D(1)(b). As it must only pass one threshold we now move to a substantive evaluation under s 104 of the Act.

Substantive evaluation

[880] This enables the Court to consider the application in the exercise of its discretion, taking into account the matters in s 104 of the Act, particularly ss 104(1), 105, 107 and Part 2.

[881] The broad discretion involves all the matters discussed, and includes any other matters the Court considers relevant and reasonably necessary to determine the application. We can also consider at this stage positive effects and offset and compensation.

[882] We have already made findings in respect of the objectives and policies and reached conclusions in respect of a whole range of effects. The short point we have already identified is that we must be satisfied that the application avoids material adverse effects from discharges to water or land from the Site. The level of certainty in that regard must be high given the potentially significant adverse consequences.

[883] Given the complexity of this application, we have taken into account all the evidence before us in exercising our discretion. We conclude that, with changes to the proposal to meet the outlined concerns and improvement of the conditions and management plans, we could be satisfied in granting consent on the basis of net biodiversity gains and protection of threatened species on the Site.

[884] The substitution of the term material harm from the *Port Otago* decision does not fundamentally change the focus. We are dealing with levels of risk as well as a dispute as to the extent of harm for the issues identified. Questions of avoidance and material harm (or material adverse effects) become an issue as does the scale at which we are examining the adverse effects and benefits.

[885] The Supreme Court in *King Salmon* does not suggest such an absolute position when dealing with transitional or ephemeral effects. Neither Supreme Court formulation fully addresses the issues in this case that deal with the question of risk, and the question of how material harm or avoidance is to be measured. Is every single member of that species to be considered, and if not what group of that species and what level of impact constitutes not avoiding or no material harm?

[886] We have already noted that we do not consider that such an evaluation will always be on an entire-species basis, nor even necessarily on a local or regional basis. In some circumstances the death of an individual may amount to material harm.

[887] The circumstances of the case and a pragmatic and proportional response are required. In this case, we conclude that the whole of the Waste Management holding in Springhill Farm and Matariki Forests is the correct scale to consider better outcomes in the short, medium and long term. This includes the waterways and all of the identified threatened species we have discussed. It can also include improvements to the Hōteo River.

[888] We do not accept that the phrase *avoid adverse effect* on particular species means avoid every effect on every member of that species. Such a position would mean there would be no further developments in New Zealand. But nor can it mean every development can provide offset/compensation even for threatened species. Outcomes must be fact dependent.

[889] In the *Port Otago* case, the Supreme Court gave some guidance as to how the question of material harm might be addressed in deciding plan provisions. It is clearly an evaluative process depending on evidence and an appropriate response in the circumstances.

[890] The concept of proportionate response has been utilised in common law in England and also at various times referred to in New Zealand. Decisions upheld in superior courts indicate that there will be circumstances where there may be local losses of individuals, species or even of broader environments but where other steps may be taken that in the longer term would leave the species in a better state than it was prior.

[891] As was clear in this case, the success of a predator-proof area or other mitigation or offsets can never be calculated with mathematical precision. By the same token, the re-creation of a similar ecotone does not guarantee that it would provide as effective a habitat for a species as the habitat lost.

[892] We have concluded that when examining questions of compensation and offset, we are looking for an outcome that can be described ecologically as better than that which existed before, and accept that determining whether that outcome has been reached and to what degree, particularly for Hochstetter's frog, may take some years.

[893] With significant amendments to the proposal relating to how landfill leachate, stormwater, sediment and other contaminants are dealt with, we consider the effects can be internalised to such a degree that we are satisfied that the consent could be granted without a significant adverse effect on the Hōteo River and Kaipara Harbour.

[894] To that degree, a better outcome for discharges from the landfill site should be expected than those from existing farming and forestry activities where significant sediment pulses are released at times, and in the case of forestry take place over several rotations, repetitively.

[895] Nowhere is this issue better highlighted than in relation to potential failure or leaching of contents of the landfill into the Hōteo River and Kaipara Harbour. Although no final design for the landfill has yet been completed, the experts for Waste Management are confident that they will avoid such events. That level of confidence is often reflected in the factor of safety in the design. Notwithstanding questions from the Court on this issue, we do not understand that to have been settled at this stage and it is difficult for the Court to determine whether the risk has been fully addressed.

[896] An approach adopted in other cases is to allow that even in the event of a major catastrophic event there are in-built design features which compensate for such an event. In this case, an additional overflow pond system could be developed down the true left side of the valley below Pond 1 adjacent to and above Eastern Stream. This would have the purpose of minimising the effect of a major failure of the landfill whereby a significant rainfall event could overflow Pond 1 and flow consecutively through bunded ponds

below that would then capture and slow the flow.

[897] Similarly, with a leachate failure the liquid could be diverted to a holding pond until it could be either extracted by a truck or otherwise treated. These steps could essentially move the design closer to a failsafe level. Even if the structure proves to be redundant that level of extra security would not be wasted.

[898] The Court is not satisfied that the current design would avoid contaminant discharge to the Eastern Stream and beyond in the event of an unforeseen exceptional event at the landfill. We need to be satisfied that even in the event of failure, the risk has been considered and a method is available to avoid adverse effects and enable recovery and repair of the landfill. The evidence in this case indicated that the project is at a preliminary design stage, such that additional thought could be given to the factor of safety and to additional mitigation within the Eastern Stream valley below Pond 1.

[899] We return to the subject of the loss of values from within the Landfill Valley described earlier which includes the stream and riparian habitats, Hochstetter's frogs, lizards, bats and native fish. There is an acknowledged effect on the mauri of the Landfill Valley Site and the area as a whole as a result of the project.

[900] The difficulty for the Court is that it is faced with an actual or potential loss of the habitat and of many individuals of several species, some of which are protected under the Wildlife Act. This is to be offset with an anticipated improvement to those species' populations through predator control and the 126 ha Wayby Valley Sanctuary but without a guaranteed outcome.

[901] The proposed conditions currently state that if the increased population is not achieved within 10 years, it will then be achieved within 20 years. If not achieved within 20 years, it will be achieved within 30 years. The question is what if it is not achieved at all ?

[902] The effect would be the loss of the area of habitat and numbers of individuals in several species previously described. The Hochstetter's frog becomes a proxy for effects and benefits. We understand that the frog population to be removed or lost from the Landfill Valley is an important, though small (0.8%), proportion of the Southern Clade of the species in this area.

[903] Dr Baber's predictions for a likely increase in frog numbers in the Wayby Valley Sanctuary, the Sunnybrook Scenic Reserve and other predator-controlled areas presume successful breeding within the existing population of frogs in the habitat they currently occupy outside the Landfill Footprint, along with expansion of their range into new areas

of appropriate habitat as that develops in the coming decades.

[904] We found it unlikely there would not be an increase in frog numbers as a result of the proposed predator control. The uncertainty lies in the breeding potential of the species locally, the availability of future suitable habitat for expansion and the willingness/ability of the species to migrate into new territory as new habitat develops.

[905] Can we be satisfied that there is sufficient certainty of outcome that we can decide there will be no material harm to the species? We have concluded that whether we are dealing with the term *avoid adverse effects* or *avoid material harm* the issue is whether that species would be in a better position within a reasonable timeframe as a result of the development.

[906] It is also important to address the matter at an appropriate scale. In this case, our view is that the appropriate scale is the whole of the application site which Waste Management and MKCT (and hopefully other tangata whenua) can control directly. It is the scale on which there needs to be a better outcome ecologically.

[907] We wish to be very clear that we do not understand the Supreme Court or decisions of this Court to suggest that the necessary examination of the effect on a species or population must be made at a national or even regional level.

[908] Contextually though, nationally, the risk to the species as a whole is high – it is classified as *At Risk–Declining* and is threatened chiefly by predation and development within its habitat. At the local scale within the application site, we heard that without predator control numbers are likely to continue to diminish, and we are aware that in the Dome Valley area there is little or no predator control. Here we are dealing with a small population of frogs in the Landfill Valley surrounded by an active forestry operation that may be affecting similar small populations in other local valleys. Each time a population of frogs is lost the potential for interaction between populations is threatened or removed, and we understand there are consequences for species viability where populations are disconnected.

[909] While it is likely there will be an increase in the frog population due to the predator control proposed by Waste Management, we consider that the loss of a frog population in the Landfill Valley is insufficiently compensated by the potential for improvement in another population in the Wayby Valley Sanctuary/Sunnybrook Scenic Reserve area.

[910] The presence of frog habitat in other valleys within the forest area provides an opportunity to secure that habitat such that another population of frogs can be supported, as has been proposed for the Northern Valley.

[911] MKCT now supports the proposal. Ngāti Manuhiri represented by the Omaha Marae and certain other individuals, Ngāti Whātua o Kaipara, Ngāti Whātua Ōrākei and Te Uri o Hau remain opposed to the application.

[912] Mr Hohneck for MKCT was careful to say that he did not resile from his initial evidence which was opposed to the proposal. In doing so, he acknowledged the proposition put to the Court in Ngāti Manuhiri's opening submissions, similarly in opposition to the proposal. As we understood his evidence, the reason for the change of position was that Waste Management had moved to involve MKCT in managing and advising at the Site, and that Ngāti Manuhiri's acquisition of the Site in the long term meant that they now considered they were in a position to ensure appropriate outcomes on the Site. We accept that the benefits for MKCT could be significant. How this will be achieved needs to be set out in documentation in due course.

[913] We do not understand that MKCT has yet entered into final arrangements with Waste Management.

[914] It was clear from Mr Hohneck's comments that he acknowledged that Ngāti Whātua, Ngāti Whātua Ōrākei and Te Uri o Hau would have concerns about impacts upon the Hōteo River, the Kaipara Harbour and upon the mauri on the wider area through the loss of the species and benthic areas and streams on the Site.

[915] Relating to the Hōteo River itself, it is fair to say that all of the tangata whenua parties, including Ngāti Manuhiri, have an interest in that river and there are issues between them as to who might hold mana whenua. Clearly, we need only conclude that the parties have overlapping interests in the river, that Te Uri o Hau have interests particularly in the upper reaches and Ngāti Whātua Ōrākei in the lower regions, with Ngāti Manuhiri having an interest in areas overlapping Te Uri o Hau and Ngāti Whātua o Kaipara but not co-extensive.

[916] In considering the mauri of the freshwater and mana whenua values in relation to the environment, we acknowledge the degraded state of the Hōteo River and Kaipara Harbour and the efforts already being taken to improve the environmental status and mauri of these water bodies. Similarly, within the Site, forestry and farming use have depleted the mauri of the area.

[917] As we have described above, Waste Management has sought to address these by a combination of avoidance of some key areas, a significant improvement of the degraded Springhill Farm in relation to the wetlands, and improvement in the Hōteo River through riparian enhancement.

[918] Overall, the AUP is less focussed than many other plans on a common vision for the District/Region. The AUP allows a range of activities, and uses a non-complying status for certain proposals, which makes it difficult to conclude that many proposals are repugnant to the objectives and policies. Further, the clear linkage of objectives' and policies' outcomes with mitigation and even offset and compensation qualify the 'avoid' objectives and policies of the AUP. Finally, the introduction of new policies through National Policy Statements and National Environmental Standards creates a certain disconnection with the AUP's objectives and policies.

[919] We have concluded that the AUP is written in such a way that it anticipates that there will be circumstances where activities can avoid adverse effects while achieving the enabling provisions of the Act. The AUP does not set itself against infrastructure generally, or landfills in particular. Provisions such as E13.3(4) envisage a high standard of assurance, or satisfaction by the consenting authority that there will be no material adverse effects from discharges. Similarly, Chapters E3 and E15, for example, require that there needs to be a high level of satisfaction that any remedial, mitigatory, offset or compensation works achieve, maintain or improve the biodiversity or ecological function of the area.

[920] These are matters of degree. We consider that overall we must be satisfied that the application will avoid material adverse effects.

Conclusion

[921] Although these are matters of degree, it means that we need to pay particular attention to avoiding adverse effects:

(a) on Hochstetter's frog,

(b) from the loss of stream length (12.2 km),

(c) on significant lizards and bat habitat,

(d) from other benthic effects on the waterways; and

(e) on the mauri of both the landfill site as a whole (1,070 ha) and also on the mauri of the Hōteo River and the Kaipara.

[922] The evaluation that is required is an overall evaluation under s 104. If the application does not avoid adverse effects from discharges to the satisfaction of the Court, or we are not satisfied that there would be a maintenance and restoration on the Site and in the area in respect of biodiversity and wetlands, then we would conclude that

the application should not be granted consent, and would then also be contrary to the AUP.

[923] The interconnection between the two elements – effects under s 104 and the objectives and policies in the AUP – has created enormous difficulty and confusion for the parties. The Act did not anticipate the co-mingling of objectives and policies with effects. Where they intermingle, such as here, the two evaluations become merged. That is the reason we have dealt with the process under a s 104(1) evaluation.

[924] Elements of the proposal seek to achieve the AUP's objectives and policies to maintain or enhance water bodies and indigenous biodiversity. We refer in particular to the pest control, predator-fenced area, riparian planting and fencing, protecting the Northern Valley and sediment reduction once forestry is complete. Waste Management says that Ngāti Manuhiri's agreement means that, at least in respect of the landfill site, Ngāti Manuhiri is satisfied that any significant adverse effects are avoided.

[925] In considering the mauri of the freshwater and mana whenua values in relation to the environment, we acknowledge that the Hōteo is already significantly degraded and is already the subject of a remediation plan as part of the KMR project. In our view, this means it is particularly sensitive to any further material adverse effects on it, and brings into play objectives and policies of the AUP relating to the improvement of the quality of the waterway, and on the mauri of that water where it is already depleted or degraded.

[926] We have concluded that the effects in several categories are significant without further amendment to the proposal and conditions. We are assuming these changes are possible, as the matter is finely balanced. We acknowledge the AUP connection between objectives and policies and effects. Accordingly, whether the application is contrary to the AUP depends on whether particular effects can be satisfactorily addressed.

[927] The Court has a general discretion that it must be satisfied that a consent should be granted having regard to the principles of the Act under Part 2. The Court may take into consideration matters it considers relevant and reasonably necessary to determine the application, and we can consider at this stage positive effects and offset compensation.

[928] It is clear that the Court's proposed overall outcome has been critical to our reaching a conclusion that a consent might be granted with the significant changes that we have outlined.

[929] The hurdle is not an easy one and requires us to be satisfied that the sustainable management purpose of the Act will be achieved. Given the range of effects on mauri, tangata whenua, taonga and significant flora and fauna, and the loss of streams, there are

considerable impediments to the grant of consent. Generally, where individual objectives and policies are not met, or there are significant effects, there must be some unusual (even exceptional) aspects of the application that justify granting it.

[930] We conclude that the status of the activity as non-complying provides that a consent might be granted if it achieves the key purposes of the AUP and the Act. It is for this reason that we conclude further steps are required:

(a) To reduce any possibility of major adverse effects on the Hōteo River and the Kaipara Harbour by additional design solutions in Eastern Valley below Pond 1 to provide further storage in case of unforeseen events.

(b) Significantly increasing the redundancy in respect of the potential for discharge of leachate and sediment. Redundancy systems should be installed prior to the commencement of the construction. We are generally satisfied with the liner design, subject to being assured that any leachate that escapes the liner will be picked up downstream either by ground monitoring or water monitoring.

(c) Provision for high water flows and diversion where required (that is, if any leachate or high sediment concentrations or other contaminant is detected). Potential to use a settling system alongside the stream that higher flows may be diverted to. Using a system of weirs enables this to be automatic rather than requiring intervention.

(d) Final design of the Landfill Footprint, ponds and stormwater to achieve sediment control to as high quality as practicable, that is to say GD05 or better.

(e) Trigger levels to be set for normal conditions, concern conditions and contingency requirements as conditions of consent.

(f) To provide protection for the Hochstetter's frog population in the Northern Valley from forestry activities in the medium term (say 7-10 years). This would include:

    (i) when and how pine harvesting is to occur;

    (ii) a perimeter fence (limited to stock fencing i.e., for pigs and deer);

    (iii) riparian planting along the valley floor to provide a 20 m buffer on both sides; and

    (iv) predator control (bait station, traps, aerial (predator fencing not required).

(g) To investigate whether the riparian planting programme can be partnered with the KMR programme to achieve rapid gains in the Hōteo.

(h) Other provisions provided including the potential for tangata whenua to join the committee with MKCT to discuss further improvements to the system during its operation.

(i) In relation to biodiversity, with the frog as a proxy, the general plan already envisaged, with the Northern Valley included. We envisage the Northern Valley would be operated in accordance with mātauranga principles, funded by Waste Management and managed in conjunction with them.

(j) Agreed systems as to how a net gain in the frog population in the predator controlled areas will be measured with a goal of achieving improvement in the population within 6-8 years, with ongoing monitoring during the life of the landfill to ensure these gains continue.

Part 2

[931] In considering this matter broadly within Part 2 we are satisfied that an amended application and amended conditions in the broad terms we have described could meet the purpose of the Act and satisfy us that there would be no adverse discharge effects from the landfill and that it would otherwise achieve a net biodiversity gain on the Site. To be satisfied of this we would need to see the improved design and also more certain conditions and management plans.

Outcome

[932] **The Court concludes that a modified application, conditions and Management Plans could meet the purpose of the Act, and the relevant matters under s 104. We would need to see amendments to the proposal, conditions and management plans sufficient to satisfy us that the consent can be granted.**

[933] **Further work is required to identify:**

(a) whether the Northern Valley can be retained (unlogged) for 7-10 years while the frog population improves;

(b) whether the downstream area of landfill and the separation of waters can be improved to deal with:

(i) high rainfall;

(ii) landslip or failure of the landfill;

(c) the arrangement with tangata whenua (including MKCT) can be resolved as conditions of consent or other agreements.

[934] **Waste Management is to file and serve a memorandum with its response and timeline to issues raised in B. This memo is to be filed by 31 January 2024.**

[935] **Auckland Council and MKCT are to file any additional memoranda by 9 February 2024.**

[936] **Appellants and s 274 parties are to file any memoranda in response by 1 March 2024.**

[937] **The Court will convene a judicial conference or make further directions as necessary.**

[938] **Costs issues (if any) will be subject to directions after any final decision.**

For the Court:

JA Smith
Environment Judge

MJL Dickey
Environment Judge

File Ref: A18038B_04_Site_Area_and_Context_revB.mxd

HOME

Annexure A - Fig.2 Graphics supplement

Spindlers Road
Waiby Valley Road
State Highway 1
Waiby Station Road
Western Block
Eastern Block
Wilson Road
Waiwhiu Block
Southern Block
River Road
Russell Road
Waiteraire Tributary Block
Crowther Road
Forestry Roads
Peak Road
Waiwhiu Road

Revision B:
1. Landfill and Topsoil Stockpile areas updated.

Revision A:
1. Stockpile Area footprint updated.

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0 250 500 m

1:20,000 @ A3

Data Sources: LINZ (Topographic maps), Tonkin+Taylor, Auckand Unitary Plan (Overlays), BML

Projection: NZGD 2000 New Zealand Transverse Mercator

LEGEND

- WMNZ Landholding
- Landfill
- Stockpile Area
- Topsoil Stockpile 1
- Topsoil Stockpile 2
- Clay Borrow Pit
- Access Road and Bin Exchange
- NOR for Warkworth to Wellsford Designation
- Significant Ecological Areas
- Outstanding Natural Features
- Outstanding Natural Landscape
- Natural Stream Management Areas

AUCKLAND REGIONAL LANDFILL

Site Area and Context

Date: 9 February 2022 | Revision: B

Plan prepared by Boffa Miskell Limited

Project Manager: John Goodwin | Drawn: SGa | Checked: JGo

Figure 2

Drawing No. A18038B_04

HOME

POND 6
CLAY BORROW & STOCKPILE
DIVIDING RIDGE
POND 1/ WETLAND
STOCKPILE 1
POND 7
POND 2
RENEWABLE ENERGY CENTRE
WILSON ROAD
POND 3
HOLST ROAD RIDGE
STOCKPILE RIDGE
WASTEWATER DISPOSAL FIELD
WORKSHOP
OFFICE
POND 9
LANDFILL
SITE EXTENT
TOPSOIL STOCKPILE 1
MIDDLE RIDGE
WATER SUPPLY TANKS
TOPSOIL STOCKPILE 2
JACKSON ROAD RIDGE
BIN EXCHANGE AREA
ACCESS ROAD
SUNNY BROOK RIDGE
RUSSELL ROAD
CROWTHER ROAD

Legend

- WMNZ Landholding
- Significant Ecological Areas
- Natural Stream Management Areas
- Landfill and Stockpiles

Ecological and Landscape Mitigation and Enhancement Planting

- Grass – 20m wide around landfill perimeter road
- Low Native Planting – 30m wide around outside of grass
- Backdrop Planting – Non-permanent exotic trees between low native planting and screen planting
- Screen Planting – 10m wide (minimum) fast growing exotic and native species
- Native Revegetation – including ecological mitigation and offset planting. Native Revegetation includes 42 ha of planting associated with managing landscape effects. For areas of ecological revegetation and enhancement refer to Tonkin and Taylor evidence.
- Proposed Forestry - to be planted and managed by Matariki Forests.
- Wetland Enhancement
- Access Roads
- Site Roads
- Existing Roads
- Proposed Warkworth to Wellsford Designation
- Mammalian Pest Exclusion Fence

Revision D:
1. Landfill and Topsoil Stockpile areas updated.

Revision C:
1. Text to Note 2 added.

Revision B:
1. Proposed forestry and native revegetation areas updated and wetland enhancement areas added.

Revision A:
1. Stockpile Area footprint and Pond 7 location updated.

Annexure B - Figure 8 - Site wide ecological and landscape plan

Boffa Miskell

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0 250 500 m

1:15,000 @ A3

Data Sources: LINZ (Topographic maps), Tonkin+Taylor, Auckland Unitary Plan (Overlays), BML

Projection: NZGD 2000 New Zealand Transverse Mercator

NOTES*

1 - Wetland Planting buffer is 10m in width.

2 - Exact location and extent of planting may vary slightly due to terrain and ground truthing extent of existing vegetation, final detailed design, scheduled forestry temporary skid sites, narrow service vehicle tracks and recreational track routes.

AUCKLAND REGIONAL LANDFILL

Site Wide Ecological and Landscape Plan

Date: 10 February 2022 | Revision: D

Plan prepared by Boffa Miskell Limited

Project Manager: John Goodwin | Drawn: SGa | Checked: JGo

Figure 8

Drawing No. A18038B_15