

Waste Management NZ Limited – Fairfield Closed Landfill – Renewal of Regional Resource Consents (RM24.098)

Cultural Impact Assessment Recommendations – Proposed Approach / Response (FINAL – 31 January 2025)

The following table lists the nine recommendations of the Cultural Impact Assessment (CIA), dated 4 November 2024, and prepared by Aukaha on behalf Te Rūnanga o Ōtākou (Te Rūnanga). The table then provides a comment and / or outlines Waste Management NZ Limited’s (Waste Management) understanding of the recommendation based on discussions with Te Rūnanga representatives during the site visit and hui.

The final three columns of the table outline the proposed approach to addressing the CIA recommendations, with the three options being via: existing proposed condition (i.e., already included in Appendix 8 of Waste Management’s resource consent application); a new or amended proposed condition; or, another approach (i.e., not through proposed consent conditions). The proposed approach was developed as follows:

- Waste Management and Planz drafted the initial proposed approaches;
- The table, with the initial approaches, was then provided to Aukaha and Te Rūnanga for their input and amendment;
- Waste Management, Aukaha and Te Rūnanga then confirmed, between the parties, the proposed approach;
- Prior to finalising the suggested proposed approaches, this table was provided to Otago Regional Council (ORC) for comment as to the potential ‘acceptability’ of the proposed approaches (particularly the proposed conditions) and no issues were raised.

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			Existing Proposed Condition	New / Amended Proposed Condition	Other Approach (outside of consent conditions)
Wai Māori					
1	That all practicable measures are taken to prevent discharges entering water, including preventing, where possible, leachate from entering groundwater and surface water. The interception trench around the perimeter of the landfill is the primary mitigation measure to prevent the outward flow of leachate, as the landfill is unlined. Waste Management should investigate and implement engineering solutions to improve the effectiveness of the interception trench in preventing the outflow of leachate to the Kaikarae Wetland and Estuary.	<p>It is understood, based on discussions at the hui held on 30 October 2024, that Te Rūnanga would prefer a stepped approach to addressing this recommendation. It is understood that the key steps are for Waste Management to:</p> <ul style="list-style-type: none">Initiate and undertake a more robust environmental monitoring programme that focuses on the effects on the receiving environment (ecology and water quality). The existing resource consents for the Eastern and Western Landfills required relatively limited monitoring of the effects on the receiving environment.Undertake an ‘effectiveness and technology’ review of the leachate management system at the site every 5-years.Implement any improvements identified during the effectiveness and technology review. <p>(Note: References to ‘the site’ throughout this table refer to the Eastern and Western Landfills, as covered by the resource consents being sought. A description of the site, in terms of land</p>	<p>A proposed monitoring programme, including receiving environment water quality and ecology, is provided in Conditions 9 to 19 (Part C of App. 8 of the application).</p> <p>Proposed Condition 4 of the water permit (Part C of App. 8 of the application) requires regular inspections of the leachate management system to ascertain that it is working as required. This condition also requires, where there is evidence of uncontrolled leachate discharges, for this to be investigated and actions to resolve the matter to be undertaken.</p>	<p>Proposed new ‘effectiveness and technology’ review condition, to be attached to the site’s water permit, as follows:</p> <p><u>The Consent Holder must, at 5-yearly intervals, with the first interval commencing during the 5-year anniversary of the commencement of this consent, undertake an assessment which:</u></p> <p>a) <u>reviews the effectiveness of the leachate management system from an engineering perspective, with this assessment based on the findings of the monitoring carried in accordance with Conditions 9 to 19 of this consent;</u></p> <p>b) <u>reviews any proven and practical technological developments in the previous 5-years that are potentially relevant to the site’s leachate management system, and the costs and benefits of the implementation of these developments at the site; and</u></p> <p>c) <u>details any measures that have been implemented in the previous 5-years, or that are planned to be implemented within the next five</u></p>	<p>Pattle Delamore Partners Limited (PDP) have been engaged by Waste Management to undertake an additional receiving environment assessment (water quality and ecology) to ascertain the potential effects on the receiving environment from the landfill discharges and water take. The field work has been completed (as at 22 November 2024). The results and reporting will follow in due course.</p> <p>Waste Management and Te Rūnanga are committed to establishing a relationship where issues within the site and / or the broader environment are openly discussed. This commitment, which is to be established in accordance with a joint Memorandum of Understanding (MoU), shall, at a minimum, consist of the following:</p> <ul style="list-style-type: none">Meet at least once a year, with all meeting costs met by Waste Management.At least one-month prior to the meeting, Waste Management are to provide copies of all relevant monitoring data, reports (i.e., including any updated draft AMP) and assessments to Te Rūnanga for their review and consideration prior to the meeting.

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		parcels, is provided at the beginning of the proposed consent conditions (App. 8 of the application)).		<p><u>years in response to the findings in relation to (a) and (b) above.</u></p> <p><u>The assessment required by this condition must be undertaken by a Suitably Qualified and Experienced Professional.</u></p> <p><u>The Consent Holder must provide a copy of this assessment to the Consent Authority by 30 November of the year that assessment is undertaken.</u></p>	<ul style="list-style-type: none"> The meetings will facilitate open discussions about any issues arising from the site or broader environment. Any agreed outcomes or solutions identified during these meetings are to be implemented as agreed. The requirement to meet can cease at any time that Te Rūnanga chooses. <p>Te Rūnanga o Ōtākou Comment The proposed approach, undertaken in accordance with a joint Memorandum of Understanding (MoU) with Waste Management, is supported by Te Rūnanga o Ōtākou.</p> <p>Aukaha Comment The 'effectiveness and technology' review should be undertaken at five yearly intervals, with remedial measures being undertaken over the following five years. This will enable Waste Management to respond proactively to the monitoring of the effects of the Eastern and Western Landfills on the receiving environment. Further, this aligns with the five-year interval of the climate change risk assessment.</p>
2	That Waste Management develop and implement a climate change adaptation strategy as part of the landfill closure management plan.	<p>A 'Natural Hazard & Climate Assessment' has been prepared as part of the application (App. 6). The recommendations of this assessment have been incorporated into proposed consent conditions (as contained in App. 8 of the application).</p> <p>In addition to the above, it is understood that this recommendation seeks to ensure that the adequacy of currently identified climate change mitigation is reviewed and re-considered as appropriate during the term of the resource consents. On this basis, Waste Management considers that an amendment to the Aftercare Management Plan (AMP) conditions attached to the resource consents is needed to require the AMP to include a</p>	<p>The proposed conditions which address the recommendations outlined in the 'Natural Hazard & Climate Assessment', as provided in App. 8 of the application, include:</p> <ul style="list-style-type: none"> Discharge of Landfill Leachate consent. Closed Landfill Integrity – Inspections, Maintenance and Risk Modelling (Conditions 2 to 5). Condition 5 requires that risk assessments are carried out to assess the slope stability of the Eastern Landfill, particularly in relation to climate change considerations and potential seismic effects. Take of Groundwater Containing Leachate and Other Groundwater. Mitigation – Effects from Climate Change (Conditions 20 and 21). 	<p>Amend the AMP condition in all of the resource consents as follows:</p> <p><i>The AMP must be based on the AMP submitted as part of the application and must apply to all aspects of the closed landfill as authorised by Consents [to insert] to [to insert].</i></p> <p><i>The purpose of the AMP is to ensure that procedures are in place that will ensure that the closed landfill, during the aftercare period, is appropriately managed so that adverse effects on the environment arising from the activities authorised by Consents [to insert] to [to insert] are avoided, remedied or mitigated. The AMP must contain procedures that, as a minimum, address:</i></p>	<p>Te Rūnanga o Ōtākou Comment The proposed approach, undertaken in accordance with a joint Memorandum of Understanding (MoU) with Waste Management, is supported by Te Rūnanga o Ōtākou.</p> <p>Aukaha Comment The review at 5-year intervals of the risks to the site arising from climate change is supported.</p>

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		'climate change adaption strategy' for the site.	Requires an assessment / modelling, within 2-years of the commencement of the consent, for mitigation works to minimise the potential for inundation of the leachate management system and to protect the landfill and landfill stability from adverse climate change effects.	<p>...</p> <p><i>fa) Implementation of a strategy that requires regular reviews, at least every 5-years, of the risks to the site arising from climate change, and where risks are identified, the procedures to be implemented by the Consent Holder for addressing the risks.</i></p> <p><i>fb) Emergency management and contingency procedures, including, but not limited to, from natural hazards such as site flooding.</i></p> <p><i>g) Recording and responding to complaints and incidents at the site.</i></p> <p>...</p>	
3	That effects on mauri and whakapapa from the alteration of the existing hydrology and from contaminants entering water are offset by mitigation measures, including riparian planting, contaminant mitigation and pest management.	<p>Waste Management consider that this is connected to the recommendation discussed in Ref. 1 above (in part). In relation to pest management on site (i.e., plants and animals), Waste Management accepts that this is part of its aftercare responsibilities. It is anticipated that the AMP will outline procedures for pest management (via site maintenance and inspection procedure requirements (clause (c) of the AMP conditions)).</p> <p>In relation to 'contaminant mitigation' this is covered by Ref. 1 above.</p> <p>Waste Management understands that in relation to riparian planting and the proposed cultural mitigation measures, these are best developed in partnership with Te Rūnanga.</p>	The AMP conditions require procedures for site maintenance and inspection (Clause (c)) of the landfill. This will include procedures for pest management.	-	<p>The means of addressing this recommendation to be resolved in partnership with Te Rūnanga (as part of the MoU approach outlined in Ref. 1 above).</p> <p>Te Rūnanga o Ōtākou Comment</p> <p>The proposed approach, undertaken in accordance with a joint Memorandum of Understanding (MoU) with Waste Management, is supported by Te Rūnanga o Ōtākou.</p>

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4	Proposed offsetting or mitigation management plans must be provided to mana whenua for review and consultation prior to implementation. While these measures do not directly address the adverse effects on mauri, they will contribute to enhancement of the mauri of the area.	<p>Waste Management consider that this is connected to the recommendation discussed in Ref. 1 above (in part). The application does not propose developing offsetting or mitigation management plans, as the site controls that are proposed by Waste Management are provided by way of the proposed consent conditions (App. 8 of the application) and the implementation of the AMP.</p> <p>Waste Management welcomes Te Rūnanga input into the AMP (as part of the partnership approach proposed). It is noted that a draft AMP forms part of the application (App. 2) and Waste Management welcomes input on that document (noting that an updated AMP, under the proposed conditions, needs to be provided to Council within three months of the commencement of the consent).</p> <p>Waste Management considers any additional mitigation (or offsetting) in relation to cultural effects, as noted above under Ref. 3 are best developed in partnership with Te Rūnanga.</p>	-	-	<p>The means of addressing this recommendation to be resolved in partnership with Te Rūnanga (as part of the MoU approach outlined in Ref. 1 above).</p> <p>Te Rūnanga o Ōtākou Comment The proposed approach, undertaken in accordance with a joint Memorandum of Understanding (MoU) with Waste Management, is supported by Te Rūnanga o Ōtākou.</p>
Mahika Kai and Biodiversity Values					
5	The restoration of the biodiversity values of the Kaikarae Estuary, Wetland, and tributaries is sought to provide for the habitats and wider needs of mahika kai and taoka species and to rebalance the mauri of the wetland and estuary.	<p>Waste Management is committed to contributing to the restoration of biodiversity values in these water bodies (as outlined under Refs. 6 to 8 below). It is noted that the monitoring programme, which will be attached to the resource consents, can be used to inform and guide the nature of any such restoration (as outlined in Ref. 1 above).</p>	-	-	<p>The means of addressing this recommendation to be resolved in partnership with Te Rūnanga (as part of the MoU approach outlined in Ref. 1 above).</p> <p>Te Rūnanga o Ōtākou Comment The proposed approach, undertaken in accordance with a joint Memorandum of Understanding (MoU) with Waste Management, is supported by Te Rūnanga o Ōtākou.</p>
6	An Ecological Impact Assessment should be undertaken to guide the development of a Restoration Plan for the Kaikarae Estuary, Wetland and tributaries.	As noted above (Ref. 1), ecological monitoring of the receiving environment is underway. The fieldwork has been completed with Waste Management now awaiting the results and associated report. In addition, the proposed consent conditions attached to the water permit	Condition 18 of the water permit includes a requirement for an ecological monitoring programme. The required ecological surveys are to be carried out annually for the first 3-years of the consent, and thereafter every 5-years (unless Condition 19 of the consent	-	The outcomes of the recent receiving environment assessment (fieldwork completed as at 22 November 2024), and any ecological monitoring undertaken in accordance with Condition 18, can be a matter of discussion at the proposed partnership meetings with Te Rūnanga (as

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		includes a requirement for an ongoing ecological monitoring.	applies which allows for the reduction or cessation of monitoring where certain requirements (i.e., where risk is minimal as determined by a suitably qualified and experienced person) have been met)). Condition 22 of the water permit, along with similar 'reporting' conditions attached to all resource consents, requires an annual report to be prepared covering the results of all monitoring, and other site activities.		part of the MoU approach outlined in Ref. 1 above). Te Rūnanga o Ōtākou Comment The proposed approach, undertaken in accordance with a joint Memorandum of Understanding (MoU) with Waste Management, is supported by Te Rūnanga o Ōtākou.
7	The Restoration Plan for the Kaikarae Estuary, Wetland and tributaries should be developed in partnership with manawhenua.	Waste Management agrees that any proposed Restoration Plan sought be developed in partnership with manawhenua (and with other parties (as per Ref. 8 below)). However, as indicated by Ref. 8 below, given that many parties have contributed to the degradation of these water bodies, the development and implementation of any such Restoration Plan should be developed with all adjacent activities and landowners.	-	-	The means of addressing this recommendation to be resolved in partnership with Te Rūnanga (as part of the MoU approach outlined in Ref. 1 above). Te Rūnanga o Ōtākou Comment The proposed approach, undertaken in accordance with a joint Memorandum of Understanding (MoU) with Waste Management, is supported by Te Rūnanga o Ōtākou. Te Rūnanga o Ōtākou agrees that any restoration plan for the Kaikarae Estuary, Wetland and tributaries should be developed and implemented in partnership with adjacent activities and landowners.
8	Collaboration with the Dunedin City Council on the restoration of the Kaikarae Estuary, Wetland, and tributaries is encouraged to enable holistic management of the effects of the Green Island and Fairfield Landfills	Waste Management is willing to participate in, and contribute to, any such collaborative processes, if established. As discussed at the 30 October 2024 hui, it is understood that delivery of this recommendation would be led by manawhenua.	-	-	The means of addressing this recommendation to be resolved in partnership with Te Rūnanga (as part of the MoU approach outlined in Ref. 1 above). Te Rūnanga o Ōtākou Comment The proposed approach, undertaken in accordance with a joint Memorandum of Understanding (MoU) with Waste Management, is supported by Te Rūnanga o Ōtākou.

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Wāhi Tūpuna Values					
9	<p>The protection of the values of wāhi tūpuna is sought by mana whenua, including:</p> <ul style="list-style-type: none">Protecting the full range of landscape features of significance.Ensuring that the interpretation of Kāi Tahu histories associated with the Kaikarae Estuary and Pukemakamaka is undertaken by Te Rūnanga o Ōtākou.Encouraging the use of traditional place names. <p>It is recommended that a co-design process is undertaken with mana whenua to incorporate mana whenua values and pūrākau associated with the Kaikarae Estuary to support the restoration of this wāhi tūpuna landscape when the landfill is returned to an unrestricted (noa) state. This process may be staged reflecting the different stages of landfill closure and aftercare.</p>	<p>Waste Management is willing to work with Te Rūnanga to implement this recommendation, where and if applicable.</p>	-	-	<p>The means of addressing this recommendation to be resolved in partnership with Te Rūnanga (as part of the MoU approach outlined in Ref. 1 above).</p> <p>Te Rūnanga o Ōtākou Comment</p> <p>The proposed approach, undertaken in accordance with a joint Memorandum of Understanding (MoU) with Waste Management, is supported by Te Rūnanga o Ōtākou.</p>