



15 November 2021

Otago Regional Council

70 Stafford Street

Private Bag 1954

DUNEDIN 9054

Tēnā koutou, ko tēnei mihi atu ki a koutou, kā mema o te komiti, kā kaiwhakawa o kā mea e pa ana tēnei kaupapa taumaha, me ki, o tātou nei rohe moana, he taoka o tātou nei whānau, hapū me te iwi. Ki a rātou kua whetu rakitia, te huka wairua, haere, moe mai, oki oki mai, kati.

RE: Resource Consent Application – Dunedin City Council

Resource Consent Application – RM20.280

Various activities associated with the proposed Smooth Hill landfill, namely:

- Discharge Permit to discharge waste and leachate onto land, and discharge landfill gas, flared exhaust gases, dust and odour to air, and to discharge water and contaminants from an Attenuation Basin and sediment retention ponds, for the purpose of the construction and operation of a Class 1 landfill.
- Water Permit to take of up to 87 m³/day of groundwater and use of up to 50 m³/day of groundwater, for the purpose of managing groundwater collected beneath a Class 1 landfill.
- Water Permit to divert surface water within the Ōtokia Creek catchment for the purpose of the construction and operation of a Class 1 landfill and associated road realignment works.
- Water Permit to dam water within an Attenuation Basin for the purpose of the construction and operation of a Class 1 landfill.
- Land Use Consent to alter, reclaim, and place structures on, the bed of waterbodies and wetlands for the purpose of road realignment works.

This is a submission on a publicly notified resource consent application pursuant to section 95A of the Resource Management Act 1991.

Te Rūnanga o Ōtākou (the Rūnaka) **support** this application. The Rūnaka are not trade competitors for the purposes of section 308B of the Resource Management Act 1991 (RMA).

Te Rūnanga o Ōtākou **do wish** to be heard in support of this submission at a hearing.

Te Rūnanga o Ōtākou seek that the application is **granted**, for the reasons set out below.

1. INTRODUCTION

1.1 The takiwā of Te Rūnanga o Ōtākou centres on Muaūpoko/Otago Peninsula and extends from Purehurehu Point/north of Heyward Point to the Clutha River/Mata-au and inland, sharing an interest in the lakes and mountains to the western coast with Rūnaka to the North and to the South.

1.2 Te Rūnanga o Ōtākou has an enduring relationship with all areas of their takiwā, reflecting the highly mobile nature of their tūpuna (ancestors). The Taiari Plain (Taieri Plain) and its resources were used and settled by Kāi Tahu whānui for generations and contained a number of fortified pā. Traditionally, the rivers and streams in the wider Smooth Hill project area were utilised as ara tawhito (traditional travel routes), that provided a connection inland and facilitated the seasonal gathering of food and resources.

1.3 To acknowledge the enduring relationship of Ōtākou whānau with the district and its resources, Māori words are used within this document, see Appendix 1 for translations.

2.0 TE RŪNANGA O NGĀI TAHU AND THE NGĀI TAHU CLAIMS SETTLEMENT ACT 1998

2.1 Te Rūnanga o Ngāi Tahu is the governing iwi authority established by the Te Rūnanga o Ngai Tahu Act 1996 and is recognised as the representative of Ngāi Tahu / Kāi Tahu Whānui.

2.2 Te Rūnanga o Ngāi Tahu is made up of 18 papatipu rūnaka. Papatipu rūnaka are a contemporary focus for whānau and hapū (extended family groups). Through this tribal council structure Te Rūnanga o Ngāi Tahu is accountable to the tribal members. In practice, Te Rūnanga o Ngāi Tahu encourages consultation with the papatipu rūnaka and defers to the views of kā rūnaka when determining its own position.

2.3 The Ngāi Tahu Claims Settlement Act 1998 (Settlement Act) gives effect to the Deed of Settlement signed by the Crown and Te Rūnanga o Ngāi Tahu on 21 November 1997. The purpose of these documents was to:

- Confirm the Treaty relationship, obligations and responsibilities between Kāi Tahu and the Crown.
- Achieve a final settlement of Kāi Tahu historical claims against the Crown; and
- Confirm Kāi Tahu tino rakatirataka. This includes an express acknowledgement (in both the

Settlement Act and the earlier Deed) that:

“The Crown apologises to Ngāi Tahu for its past failures to acknowledge Ngāi Tahu rangatiratanga and mana over the South Island lands within its boundaries, and, in fulfilment of its Treaty obligations, the Crown recognises Ngāi Tahu as the tāngata whenua of, and as holding rangatiratanga within, the Takiwā of Ngāi Tahu Whānui.”

2.4 The Deed of Settlement and Settlement Act also acknowledge the requirement for Kāi Tahu to express its traditional relationship with the natural environment and to exercise its kaitiaki responsibilities.

3. RAKATIRATAKA AND KAITIAKITAKA

3.1 Rakatirataka is about having the mana or authority to give effect to Kāi Tahu culture and traditions in the management of the natural world. Kaitiakitaka is an expression of Rakatirataka.

3.2 Kaitiakitaka is intergenerational and can briefly be summarised as having the right and responsibility inherited through whakapapa to care and look after the environment handed to us by our ancestors mō tātou, ā, mō kā uri ā muri ake ne, for us and for future generations – our children and grandchildren

3.3 The right of Kāi Tahu to oversee land and natural resources to provide for our aspirations for the natural environment, and for the wellbeing of ngā tangata, is protected under the Treaty of Waitangi, and this right still exists today, as recognised by the Ngāi Tahu Settlement

3.4 The Kāi Tahu ki Otago Natural Resource Management Plans 1995 and 2005 are the principal resource management planning documents for Kāi Tahu ki Otago and the embodiment of Kāi Tahu rakatirataka and kaitiakitaka. The kaupapa of the plans is ‘Ki Uta ki Tai’ (Mountains to the Sea), which reflects the holistic Kāi Tahu ki Otago philosophy of resource management.

3.5 The plans express Kāi Tahu ki Otago values, knowledge and perspectives on natural resource and environmental management issues. While the plans are first and foremost planning documents to assist Kāi Tahu ki Otago in carrying out their kaitiaki roles and responsibilities, they are also intended to assist others in understanding mana whenua values and policy.

3.6 The 2005 Natural Resource Management Plan is divided into catchments, with specific provisions for the whole Otago area and each catchment. Smooth Hill is within the Taiari (Taiari) Catchment. The relevant objectives and policies of the 2005 Natural Resource Management Plan are attached to this submission as Appendix 2.

3.7 Waste management is an essential service for all people who live in Dunedin. It is imperative that mana whenua as kaitiaki work in partnership with DCC to devise a waste management solution that can serve the Dunedin community effectively while also providing for the protection of the natural environment and mana whenua values now and in the future.

4. SCOPE

4.1 This submission relates to the application in its entirety.

4.2 Te Rūnanga o Ōtākou understand that the Smooth Hill landfill site has been designated for this purpose and that the location of the landfill is not the subject of this application. However, in the interests of transparency, this submission will also cover Rūnaka involvement in the site selection and why preference was given to the Smooth Hill site.

4.3 DCC commissioned an assessment of the potential cultural impacts of the construction and operation of a Class 1 landfill at Smooth Hill, including the cultural impacts of road widening and upgrades for State Highway 1, McLaren Gully Road and Big Stone Road. This cultural impact assessment (CIA) was prepared by Aukaha in collaboration with Te Rūnanga o Ōtākou and lodged as part of the application.¹ The assessment was subsequently revised to reflect changes in the landfill design.

4.4 This submission addresses the issues and recommendations of the Cultural Impact Assessment.

5. BACKGROUND

5.1 Mana whenua were involved in the assessment of future waste management options and the subsequent selection of the Smooth Hill site in 1992 for a future landfill.

5.2 The options that were considered included extending the life of the Green Island Landfill, trucking waste to existing landfills outside Otago, incineration, biological treatment of the waste or developing a new landfill.

5.3 Trucking waste to existing landfills outside Dunedin or the region is unacceptable to mana whenua. In accordance with the principles of kaitiakitaka it is not considered tika (correct) to resolve Dunedin's waste management issues by trucking waste to another district or region. Similarly, the incineration of waste is not supported by mana whenua.

5.4 Thirty-two potential locations for a new landfill were assessed based on landform, ecology,

¹ (2020) *Cultural Impact Assessment prepared for the Dunedin City Council Proposed Landfill – Smooth Hill*

economic viability, and social factors. The Smooth Hill site was deemed the most suitable, with the extension of the life of the Green Island landfill identified as another option.

5.5 The proposed Smooth Hill landfill and the existing Green Island landfill are within significant cultural landscapes for mana whenua. The preference of mana whenua is for the development of a new landfill at Smooth Hill rather than the extension of the life of the Green Island landfill.

5.6 The Green Island Landfill adjoins the Kaikorai Stream (traditionally known as Kaikarae) and estuary. The Kaikarae estuary was one of the first places to be named in the Dunedin area and was once a significant mahika kai area. The significance of Kaikarae as a place of mahika kai stems from the earliest time in tribal memory when Rākaihautū and his people named the estuary during their journey of discovery over 42 generations ago. The name refers to a meal of karae (seabird) that Rākaihautū enjoyed when camped by the mouth of the Kaikarae. Since that time the area was the site of seasonal and semi-permanent camps. Coastal Kāi Tahu utilised the Kaikarae area to supplement their seasonal food supplies. The mouth of the estuary was a favoured camping site. The mahika kai resources included eels, waterfowl, birds and kaimoana.

5.7 In the past, the Green Island landfill was known to have leached contaminants into the Kaikorai Stream, prior to a landfill liner being retrofitted to capture leachate. Cumulatively, landfill leachate, wastewater overflows, stormwater and industrial discharges have impacted on water quality in the Kaikorai Stream and estuary, rendering it unusable as a place for harvesting mahika kai. Poor water quality has endured for years, causing a disconnection from this ancestral landscape. The restoration of the mahika kai values of the Kaikorai Stream and estuary is an aspiration for mana whenua. The final closure and remediation of the Green Island landfill site is a step towards realising that aspiration.

5.8 Mana whenua have engaged with the DCC throughout the development of the Smooth Hill proposal and are more broadly engaged in the implementation of the Council's Waste Futures strategy.

6. CULTURAL IMPACT ASSESSMENT

6.1 In November 2019, Aukaha was commissioned by DCC to prepare a Cultural Impact Assessment (CIA) as part of the application for resource consent to construct and operate the Smooth Hill landfill.

6.2 An assessment was prepared which evaluated the potential impacts of the proposed landfill on mana whenua values, interests, and associations with the project area. Recommendations to

avoid, remedy or mitigate those impacts were also provided in the assessment.

- 6.3 The CIA evaluated the effects of the application on Ōtokia Creek, on wetlands within the site and adjoining McLaren Gully Road, and more broadly assessed the effects on te taiao (the environment) from the construction and ongoing operation of the landfill. Further, the assessment identified opportunities for enhancing indigenous biodiversity in the vicinity of the site.
- 6.4 Mana whenua understood that a Class 1 landfill would be constructed at Smooth Hill for municipal solid waste. The original design provided for a 44.5ha landfill footprint, with a gross capacity of 7.9 million m³, and a life expectancy of 55 years. The development of the landfill was to be carried out in five stages within a natural “amphitheatre” at the designated site.
- 6.5 The key issue for mana whenua was the potential for the landfill to have adverse effects on wai māori (freshwater). The site drains to the Ōtokia Creek catchment, with ephemeral waterways located in gullies within the landfill site and a semi-permanent stream to the north of the site that joins the Ōtokia Creek and ultimately flows to the coast near Brighton. Mana whenua were concerned that leachate, sediment, or stormwater carrying contaminants could enter surface water or groundwater and have damaging effects on the mauri and health of those waters, as well as all life that is within and sustained by that water.
- 6.6 Mauri is one of the core mana whenua values identified in the CIA as being relevant to the proposed activity. Mauri is relevant to all matters and especially the health of water bodies. Mauri is all encompassing and all things both living and inanimate possess mauri. The natural landscape and associated ecosystems, the species that are part of those ecosystems, and wetlands and waterways both perennial and ephemeral, possess mauri. Protecting and maintaining the mauri of species and habitat is a critical function of kaitiakitaka. For Kāi Tahu, this requires a whole of system approach that recognises the importance of the interconnection between land, water, and other resources. The potential impacts on mauri would be significant if leachate were to permeate through the landfill liner to groundwater or if contaminants in stormwater were to enter surface water.
- 6.7 A 0.47 ha ‘swamp wetland’ is located at the north end of the landfill designation site, which is connected to an approximately 2 ha ‘valley floor marsh wetland’ that is located outside of the designated landfill area. There is also wetland habitat in two gullies (West Gully 3 and West Gully 4) within the designation site comprising 0.49 ha in area, which are connected to the adjacent swamp wetland. There are two regionally significant wetlands within the wider vicinity of the proposed landfill site, namely the Ōtokia Swamp, located approximately 3.4 km

northwest of the site adjacent to the Taieri River, and the Lower Ōtokia Creek Marsh, approximately 7.6 km northeast of the site at Brighton.

- 6.8 Wetlands support entire ecosystems and have long held historical, cultural, economic, and spiritual significance for mana whenua. They are often referred to as the ‘kidneys of the earth’ due to their cleansing properties when water passes through. Mana whenua understand that it is currently estimated that less than 15% of wetlands in Otago are left when compared to what existed historically. Though the wetlands within the designated area are degraded, the position of mana whenua is that degraded wetlands should be restored rather than degraded further or drained. The CIA noted that a leakage of leachate that resulted in the contamination of the surrounding waterbodies or wetlands which support taoka species would affect mana whenua values and diminish the mauri of these areas.
- 6.9 The other recommendations of the CIA addressed the need for ongoing engagement with mana whenua throughout the project, the protection of the kārearea (falcons) who come to the area to breed, the protection of lizard species that are known to frequent the site and ensuring that impacts on air quality are mitigated and monitored closely.
- 6.10 Following lodgement of the application, further information was requested by the Otago Regional Council on a range of matters, including the impact of the proposed development on wetlands, and associated ecological environments. The direct impacts of the original landfill design on wetlands within the designated area were revisited following enactment of the National Policy Statement for Freshwater Management on 3 September 2020 (Freshwater NPS 2020) and the National Environmental Standards for Freshwater (NES Freshwater 2020).
- 6.11 The landfill design was subsequently amended resulting in a significant reduction in the landfill footprint. The reduction in the landfill footprint from 44.5ha to 18.6ha avoided impacts on wetlands within the designation area. However, it was noted that effects on wetlands resulting from the widening of McLaren Gully Road cannot be fully avoided. It is proposed to offset the effects on these wetlands by restoring an area of existing wetland vegetation upstream of the swamp wetland at the base of West Gully 3 and West Gully 4. The offset proposal includes:
- fencing and exclusion of pests, specifically pigs, from a connected sequence (5.8 ha) of forest and wetland habitats (which includes the swamp wetland itself, and West Gully 3),
 - ongoing protection of forest and wetland habitat within the designation area,
 - removal of weeds (extensive gorse), and
 - native plantings (to replace and exclude exotic weeds) in both the wetland itself and within a surrounding 10m buffer on its southern and eastern sides.

- 6.12 The landfill design changes and plans for wetland enhancement were reviewed by mana whenua and Aukaha and the CIA was updated in May 2021. The recommendations of the CIA are predominantly unchanged.
- 6.13 The low degree of connection of the site with Ōtokia Creek, together with the changes in design to reduce the impact of the activity on wetlands in the area, have given Te Rūnanga o Ōtākou sufficient confidence to take a position of general support for the application. However, mana whenua still seek the highest protection possible for wai māori where all practicable measures will be taken to prevent discharges of leachate and contaminants to groundwater and surface water. This includes both baseline and ongoing water quality monitoring, including water quality monitoring within Ōtokia Creek, and the adoption of sediment and erosion controls during construction of the landfill.
- 6.14 In terms of ecological management, mana whenua still seek the following outcomes:
- engagement of manawhenua in the drafting of management plans for kārearea and lizards, including a requirement that works will be undertaken outside of the breeding season for kārearea.
 - engagement with manawhenua on wetland restoration; and
 - monitoring and review of the effects of the landfill operation on air quality.
- 6.15 Mana whenua will continue to engage with Council through the Waste Futures programme to ensure that Dunedin remains on track with transitioning to a zero-waste future.

7. REASONS FOR OUTCOME BEING SOUGHT

- 7.1 Mana whenua support the proposed amendment to the landfill footprint to avoid impacts on wetlands within the designated area, and the proposed wetland restoration. The amended landfill design significantly reduces the effects of the Smooth Hill landfill on wai māori.
- 7.2 Mana whenua acknowledge that the Green Island landfill is reaching capacity and that a new Class 1 landfill is needed in order to avoid trucking waste outside of the district. Te Rūnanga o Ōtākou support the application, subject to the adoption of the mitigation measures proposed in the amended cultural impact assessment lodged as part of the application.

8. DECISION SOUGHT

- 8.1 Te Rūnanga o Ōtākou submits that the application, as applied for, should **be granted**.

E noho ora mai

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Appendix: 1

Glossary

Appendix 1: Glossary

Ara tawhito	Traditional travel routes
Hapū	Sub-tribe
Iwi	Tribe
Kai	Food
Kaimoana	Seafood
Kāi Tahu	Descendants of Tahu, the tribe
Kāi Tahu Whanui	the collective of the individuals who descend from one or more of the five primary hapū of Hawea, Rapuwai, Waitaha, Kāti Mamoe and Kāi Tahu
Kaitiaki/Kaitiakitaka	Guardian / to exercise guardianship
Kaupapa	Purpose / topic / programme / matter for discussion
Ki uta ki tai	Mountains to the Sea
Mahika kai	Places where food is produced or procured.
Mana	Power/authority
Mana Whenua	Those who exercise customary authority or rakatirataka
Mauri	Essential life force or principle, a metaphysical quality inherent in all things both animate and inanimate
Ngā Tangata	The people
Kā Rūnaka/Rūnaka	Local representative group of Otago
Pā	Fortification
Papatipu Rūnaka	Traditional Kāi Tahu Rūnaka
Rakātirataka	Chieftianship, decision-making rights
Takiwā	Area, region, district
Taoka	Treasure
Te Mana o te Wai	Concept for fresh water that encompasses the mauri of a water body
Te Taiao	The natural environment
Tika	Correct according to customary system of values and practices that have developed over time and are deeply embedded in the Māori social context
Tūpuna	Ancestors
Wai Māori	Fresh water
Whakapapa	Genealogy
Whānau	Family

Appendix: 2

The following Issues/Objectives/Policies of the Kāi Tahu ki Otago Natural Resource Management Plan 2005 are seen as relevant to the above proposal. This relates to the holistic management of natural resources from the perspective of local iwi.

Kāi Tahu ki Otago Natural Resource Management Plan 2005

SECTION 5 OTAGO REGION TE ROHE O OTAGO	
Section 5.2 Overall Objectives	
i.	The rakātirataka and kaitiakitaka of Kāi Tahu ki Otago is recognised and supported.
ii.	Ki Uta Ki Tai management of natural resources is adopted within the Otago region.
iii.	The mana of Kāi Tahu ki Otago is upheld through the management of natural, physical and historic resources in the Otago Region.
iv.	Kāi Tahu ki Otago have effective participation in all resource management activities within the Otago Region.

Section 5.3 Wai Māori	
Section 5.3.2 Wai Māori General Issues	
<ul style="list-style-type: none">• Current water management does not adequately address Kāi Tahu ki Otago cultural values.• Cross mixing of water.• Deteriorating water quality.• Lack of consideration given to Kāi Tahu ki Otago cultural values in water research. <p>Discharges:</p> <ul style="list-style-type: none">• Cumulative effects of discharges.• View that due to dilution rates, discharges to water have little or no effect. <p>Land Management and Use including:</p> <ul style="list-style-type: none">• Draining of wetlands.• Lack of proper riparian management throughout an entire catchment.• Sedimentation from land use and development.• Accidental discovery of cultural materials or sites from changed land use.	
Section 5.3.3 Wai Māori General Objectives	
i.	The spiritual and cultural significance of water to Kāi Tahu ki Otago is recognised in all water management.
ii.	The waters of the Otago Catchment are healthy and support Kāi Tahu ki Otago customs.
iv.	Contaminants being discharged directly or indirectly to water are reduced.

v.	Flow regimes and water quality standards are consistent with the cultural values of Kāi Tahu ki Otago and are implemented throughout the Otago Region and lower Waitaki Catchment.
Section 5.3.4 Wai Māori General Policies	
1.	To require an assessment of instream values for all activities affecting water.
2.	To promote the cultural importance of water to Kāi Tahu ki Otago in all water management within the Otago Region and Lower Waitaki Catchment.
4.	To protect and restore the mauri of all water.
5.	To encourage the use of the Cultural Health Index as a tool for monitoring waterways.
Discharges:	
10.	To encourage all stormwater be treated before being discharged.
12.	To encourage Kāi Tahu ki Otago input into the development of monitoring programmes.
13.	To require monitoring of all discharges be undertaken on a regular basis and all information, including an independent analysis of monitoring results, be made available to Kāi Tahu ki Otago.
14.	To encourage Management Plans for all discharge activities that detail the procedure for containing spills and including plans for extraordinary events.
15.	To require all discharge systems be well maintained and regularly serviced. Copies of all service and maintenance records should be available to Kāi Tahu ki Otago upon request.
16.	To require re-vegetation with locally sourced indigenous plants for all disturbed areas. Re-vegetation should be monitored by an assessment of the vegetative cover at one growing season after establishment and again at three seasons from establishment.
17.	To require visible signage informing people of the discharge area; such signs are to be written in Māori as well as English.
18.	To require groundwater monitoring for all discharges to land.
Land Use and Management:	
54.	To promote land use that suits the type of land and climatic conditions.
56.	To oppose the draining of wetlands. All wetlands are to be protected.
58.	To promote integrated riparian management throughout entire catchments.

Section 5.4 Wāhi Tapu	
Section 5.4.2 Wāhi Tapu General Issues	
<ul style="list-style-type: none"> • Destruction and modification of wāhi tapu through the direct and indirect effects of development and resource use. • Contamination by discharges and other activities seriously erodes the cultural value and integrity of wāhi tapu. • The resurfacing of kōiwi takata through natural and human-induced processes. • Access to culturally important sites has been impeded. • Misinterpretation of the status and importance of wāhi tapu. 	
Section 5.4.3 Wāhi Tapu Objectives	
i.	i. All wāhi tapu are protected from inappropriate activities.
ii.	Kāi Tahu ki Otago have access to wāhi tapu.
iii.	Wāhi tapu throughout the Otago region are protected in a culturally appropriate manner.
Section 5.4.4 Wāhi Tapu General Policies	
1.	To require consultation with Kāi Tahu ki Otago for activities that have the potential to affect wāhi tapu.
2.	To promote the establishment of processes with appropriate agencies that: <ul style="list-style-type: none"> i. enable the accurate identification and protection of wāhi tapu. ii. provide for the protection of sensitive information about the specific location and nature of wāhi tapu. iii. ensure that agencies contact Kāi Tahu ki Otago before granting consents or confirming an activity is permitted, to ensure that wāhi tapu are not adversely affected.
Discharges	
7.	To discourage all discharges near wāhi tapu.
Historic Places Trust (HPT):	
11.	To require the HPT to inform the appropriate Rūnaka and/or whānau where there is the potential for any activity to result in the disturbance of wāhi tapu , including: <ul style="list-style-type: none"> i. an archaeological find; and/or ii. the disturbance of any archaeological site; and/or iii. the discovery of human remains. Further disturbance should be prohibited until clearance has been obtained from the Papatipu Rūnaka.

12.	To require HPT to implement enforcement provisions to discourage fossicking and prosecute those who destroy wāhi tapu; and
13.	To recognise Kāi Tahu ki Otago kaitiakitaka over the protection and recording of archaeological sites.

Section 5.5 Mahika Kai and Biodiversity	
Section 5.5.2 Mahika Kai and Biodiversity General Issues	
<ul style="list-style-type: none"> • Point and non-point source discharges impacting on mahika kai. • Continued urban spread encroaching on mahika kai sites. • Access for Kāi Tahu ki Otago to mahika kai sites. • Customary accessibility of mahika kai species. • Research undertaken in isolation from Kāi Tahu ki Otago interests has had the effect of marginalising cultural interests. • Loss of indigenous biodiversity in the region. • Loss of species of particular importance. • Loss of indigenous flora and fauna remnants and lack of co-ordinated management of native corridors. • Poorly managed landfills, industrial sites and waste disposal sites have created contaminated soils. • Kā Paptipu Rūnaka believe that inappropriate use and development will adversely impact on: <ul style="list-style-type: none"> ▪ the diversity & abundance of terrestrial and aquatic species; ▪ the ability to access & gather mahika kai resources; and ▪ the ability to educate future generations in significant mahika kai practices 	
Section 5.5.3 Mahika Kai and Biodiversity Objectives	
i.	Habitats and the wider needs of mahika kai, taoka species and other species of importance to Kāi Tahu ki Otago are protected.
ii.	Mahika kai resources are healthy and abundant within the Otago Region.
iii.	Mahika kai is protected and managed in accordance with Kāi Tahu ki Otago tikaka.
iv.	Mahika kai sites and species are identified and recorded throughout the Otago Region.
v.	Indigenous plant and animal communities and the ecological processes that ensure their survival are recognised and protected to restore and improve indigenous biodiversity within the Otago Region.
vi.	To restore and enhance biodiversity with particular attention to fruiting trees so as

	to facilitate and encourage sustainable native bird populations.
5.5.4 Mahika Kai and Biodiversity General Policies	
1.	To promote catchment-based management programmes and models, such as Ki Uta Ki Tai.
3.	To encourage collaborative research into indigenous biodiversity.
4.	To require Kāi Tahu ki Otago participation in the management of mahika kai, both introduced and indigenous.
5.	To identify mahika kai sites and species of importance to Kāi Tahu ki Otago.
6.	To protect and enhance physical access for Kāi Tahu ki Otago to mahika kai sites.
7.	To require that all assessments of effects on the environment include an assessment of the impacts of the proposed activity on mahika kai.
8.	To promote the protection of remaining indigenous fish habitat by: <ul style="list-style-type: none"> i. Identifying waterways that exclusively support indigenous fish. ii. Prohibiting the introduction of exotic species where they currently do not exist. iii. Ensuring fish passage (both ingress and egress). iv. Removing exotic species from waterways of particular importance where this is achievable and appropriate according to Kāi Tahu ki Otago.
9.	To promote the protection of traditional breeding stocks.
10.	To encourage the transfer of knowledge through generations.
12.	To protect and enhance existing wetlands, support the reinstatement of wetlands and promote assistance for landowners for fencing-off wetlands.
13.	To promote the development of a cultural monitoring tool for vegetation and ecosystem health.
15.	To promote the reintroduction of locally extinct species of importance to Kāi Tahu ki Otago to the region.
16.	To require that hazardous operations and the use, transportation and storage of hazardous substances are not to impact mahika kai and other cultural values.

Section 5.6 Cultural Landscapes
Section 5.6.2 Cultural Landscapes General Issues
<ul style="list-style-type: none"> • There is a prevailing view that Kāi Tahu ki Otago interests are limited to Statutory Acknowledgements, Tōpuni, and Nohoaka sites. • Land management regimes have failed to adequately provide for Kāi Tahu ki Otago interests

in cultural landscapes.

- Extension and maintenance of infrastructure (e.g. transport, telecommunications) can affect cultural landscapes.
- The lack of use of traditional names for landscape features and sites.
- The building of structures and activities in significant landscapes.
- Inability to address indirect and/or cumulative effects means that many issues of significance to Kāi Tahu ki Otago, such as linkages, are not addressed during resource management processes.

Section 5.6.3 Cultural Landscapes Objectives

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| i. | The relationship that Kāi Tahu ki Otago have with land is recognised in all resource management activities and decisions. |
| ii. | The protection of significant cultural landscapes from inappropriate use and development. |
| iii. | The cultural landscape that reflects the long association of Kāi Tahu ki Otago resource use within the Otago region is maintained and enhanced. |

Section 5.6.4 Cultural Landscapes General Policies

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| 1. | To identify and protect the full range of landscape features of significance to Kāi Tahu ki Otago. |
| 4. | To require that the interpretation of Kāi Tahu ki Otago histories for either public or commercial reasons is undertaken by the appropriate Rūnaka and/or whānau. |

Place names:

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| 7. | To encourage and promote the importance of traditional place names. |
| 8. | To promote the use of traditional place names through official name changes. |

Earth Disturbance:

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| 19. | To require all earthworks, excavation, filling or the disposal of excavated material to: <ul style="list-style-type: none">i. Avoid adverse impacts on significant natural landforms and areas of indigenous vegetation;ii. Avoid, remedy, or mitigate soil instability; and accelerated erosion;iii. Mitigate all adverse effects. |
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Roading:

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| 20. | To require an accidental discovery protocol for all road realignments and widening and forest harvest roads and to avoid any sediment run-off during earthworks and |
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	road construction to avoid contamination of waterways.
21.	To require indigenous re-vegetation with locally sourced species for all disturbed areas. Revegetation should be monitored by an assessment of the vegetative cover at one growing season after establishment and again at three seasons from establishment.
Landfills:	
22.	To require site rehabilitation plans for land contaminated by landfills, tip sites, treatment plants, industrial waste, and agricultural waste.
23.	To require monitoring of methane levels for all closed landfills and that analysed data be sent to KTKO Ltd.
Structures:	
24.	To discourage the erection of structures, both temporary and permanent, in culturally significant landscapes, lakes, rivers or the coastal environment.

Section 5.7 Air and Atmosphere	
Section 5.7.1 General Issues	
<ul style="list-style-type: none"> • The cultural impacts of air pollution and discharges to air are poorly understood and seldom recognised. • Discharges to air can adversely affect health and can be culturally offensive. • Motor vehicle emissions have serious cumulative effects that call for the adoption of higher emission control standards. • Insufficient data has been collected and distributed about the effects of air discharges. • Depletion of the ozone layer and high levels of solar radiation. 	
Mahika Kai and Biodiversity	
<ul style="list-style-type: none"> • Clean air is important to the health of mahika kai 	
Cultural Landscapes:	
<ul style="list-style-type: none"> • Impact of urban settlement and discharges to air on the visibility of cultural landscape features including the moon, stars and rainbows. • Dust and the impact on people's health and traditional Māori rock art. 	
Section 5.7.2 Objectives	
i.	Kāi Tahu ki Otago sites of significance are free from odour, visual and other pollutants.
ii.	Kāi Tahu ki Otago are meaningfully involved in the management and protection of

	the air resource.
iii.	The life supporting capacity and mauri of air is maintained for future generations.
Section 5.7.3 Policies	
1.	To require earthworks and discharges to air consider the impact of dust and other air-borne contaminants on health, mahika kai, cultural landscapes, indigenous flora and fauna, wāhi tapu and taoka.
2.	To encourage early consultation with Kāi Tahu ki Otago in the development of air research proposals. The level of participation will be decided by Kāi Tahu ki Otago.
3.	To require Cultural Assessments for any discharges to air including agrochemical.
4.	To encourage reduced vehicle emissions.
5.	To promote the planting of indigenous plants to offset carbon emissions.

Section 5.8 Coastal Environment	
Section 5.8.2 Taku Tai Moana Me Wai Māori Issues	
<ul style="list-style-type: none"> Land use activities adjoining the coast adversely affect localised coastal water quality, for example from devegetation and poor riparian management. 	
<i>Discharge and Waste:</i>	
<ul style="list-style-type: none"> Leachate from inappropriately sited landfills, casual disposal sites and potentially from landbased treatment of biosolids. Stormwater discharges e.g. from urban roads containing contaminants such as oil, carbon particles. 	
Section 5.8.3 Taku Tai Moana Me Wai Māori Objectives	
i.	The spiritual and cultural significance of taku tai moana me te wai māori is recognised in all management of the coastal environment.
ii.	Te Tai o Arai Te Uru is healthy and supports Kāi Tahu ki Otago customs.
Section 5.8.4 Taku Tai Moana Me Wai Māori Policies	
1.	To encourage the integrated management of the coastal environment.
<i>Discharges:</i>	
8.	To require that leachate from disposal sites adjacent to coastal environments is monitored and contaminated environments rehabilitated.
11.	To encourage the retention of waters within catchments to reduce runoff to the coastal environment.

Section 5.8.10 Mahika Kai (Kai Moana) & Biodiversity Issues	
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| <ul style="list-style-type: none">• Impact on coastal kai moana, associated habitats and sites from activities occurring in the catchment• adjacent industrial activity as associated discharges, both point and non-point sources | |
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5.8.11 Mahika Kai (Kai Moana) & Biodiversity Objectives	
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i.	The Marine Environment is managed in a holistic way.
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