Appendix B: Policy Assessment

Where a provision is shaded green or blue this indicates that that provision has been appealed. Green shading is used for non-freshwater planning instruments, and blue shading is used for freshwater planning instruments.

Only objectives and policies of relevance to this application are included below.

Interpretation note: this policy assessment has been undertaken on the assumption that the Applicant has agreed to recommended condition General Condition 39 and that additional groundwater monitoring will be undertaken in accordance with recommended consent conditions. In the event that the Applicant does not agree to this condition, any reliance or reference within this policy assessment to additional groundwater monitoring should be substituted with the immediate implementation of engineering solution to prevent or substantially minimise the offsite migration of leachate, as if the migration has been confirmed. This would not change any of the conclusions made in this policy assessment, nor would it change my overall recommendation that consent should be granted.

National Policy Statements

National Policy Statement for Freshwater Management 2020 (NPS-FM)	
Provision	**Assessment**
Policy 1: Freshwater is managed in a way that gives effect to Te Mana o te Wai. The NPS-FM defines the concept of Te Mana o Wai as: *"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."*	**Inconsistent in the short term but consistent in the long term** Watercourses must reflect their natural characteristics and behaviours to give effect to Te Mana o te Wai and to sustain the relationship that Kāi Tahu have with the watercourse. This proposal involves several activities which have the potential to impact the health of freshwater. The abstraction of groundwater, leachate, and connected surface water through the leachate trench will have a negligible effect on flows within Kaikorai Stream because the abstraction volumes are very small in comparison to the stream flows, the tidal influence on estuary levels, and likely regional groundwater flows. Thus, the health of the stream and connected freshwater ecosystems will be protected.

	Surface runoff water (clean or sediment-laden stormwater) from the landfill is discharged into the Kaikorai Stream and estuary. Sediment-laden stormwater is treated in appropriately sized retention ponds and constructed wetlands prior to discharge. This type of treatment is industry standard practice for sediment-laden water and should be effective in removing sediment – and contaminants bound to sediment – provided the surface water catchments within the landfill are managed as described in the application, and provided the damaged culvert linking the southeastern and eastern wetlands is repaired. Consent conditions will ensure that effects are monitored and kept within appropriate limits. It is noted that the amount of sediment entrained in surface flows will reduce over the life of the consent, as progressive final capping and grassing is completed. The health of freshwater would be protected, and the natural flow characteristics and behaviours of the stream, lagoon, and estuary would reflect their natural characteristics. While there is no intention by the Applicant to discharge any leachate into the environment, based on the currently available information the possibility of leachate migration into surface waters cannot be discounted. In their submission, Te Rūnanga o Ōtākou state that the loss of leachate to Kaikorai Stream would have more than minor impacts upon the mauri of the stream and estuary and the aspirations of Te Rūnanga o Ōtākou to provide healthy habitat for mahika kai and taoka species. Hence, enabling such a discharge would not give effect to te mana o te wai. In summary, the proposal will generally enable freshwater to be managed in a way that gives effect to te mana o te wai. The exception to this is the possible loss of leachate into the receiving environment, which could further degrade waterways that are already in poor health. Consent conditions require investigation of leachate migration and, if found to be occurring, require implementation of measures to avoid or minimise

	effects. Therefore, any measurable leachate leakage, and its effects on cultural values, would be addressed adequately in the relative short-term.
Policy 2: Tangata whenua are actively involved in freshwater management (including decision-making processes), and Māori freshwater values are identified and provided for.	**Consistent** Te Rūnanga o Ōtākou as mana whenua prepared a CIA for the application. A series of recommendations were made, and these were accepted and adopted by the Applicant. On this basis, I consider that Māori freshwater values have been identified and provided for. Te Rūnanga o Ōtākou have sought further involvement via the submission and hearings process to address specific concerns about potential leachate loss to the environment.
Policy 3: Freshwater is managed in an integrated way that considers the effects of the use and development of land on a whole-of-catchment basis, including the effects on receiving environments.	**Consistent** The proposal has been designed and will be undertaken in a way that considers the effects of land-based activities on the freshwater receiving environment. This will enable the integrated management of freshwater.
Policy 4: Freshwater is managed as part of New Zealand's integrated response to climate change.	**Consistent** Climate change and sea level rise could result in an increase in flood flows and a general increase in water levels within the estuary and stream. The Applicant proposes to raise the perimeter road berm and raise the leachate collection infrastructure above the modelled flood levels to increase inundation resilience. The modelled increase in inflows to the leachate collection trench are well within the capacity of the trench. The proposal will enable freshwater to be managed as part of New Zealand's integrated response to climate change.
Policy 5: Freshwater is managed (including through a National Objectives Framework) to ensure that the health and well-being of degraded water bodies and freshwater ecosystems is improved, and the health and well-being of all other water bodies and freshwater ecosystems is maintained and (if communities choose) improved.	**Consistent** The National Objectives Framework process – outlined in subpart 2 – has not yet occurred for the Dunedin & Coast FMU. As set out in the evidence of Dr Wilson, the health of Kaikorai Stream, lagoon, and estuary are degraded. This policy directs that the health of such waters be improved. In this catchment where there are many

	contributors to adverse effects on freshwater, this burden does not fall entirely upon the Applicant, but to be consistent with this policy I consider that the activities should at least not be an impediment to improvement and at best directly contribute to improvement. Any discharge of contaminants into the already degraded stream and estuary would not contribute to the improvement of these waterbodies, but it is expected that water quality would be maintained i.e. not worsened by the proposal. The closure of the landfill in the relative short term and imposition of the recommended consent conditions will reduce the amount of leachate that is generated and also reduce the amount of sediment that is entrained in runoff such that discharges of contaminants will reduce over the consent duration. As a result, water quality is expected to gradually improve over time. Of note are the many other sources of contaminants in the receiving waters that are outside the control of the Applicant which would ultimately have a greater effect on the improvement or degradation of the receiving waters.
Policy 6: There is no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted.	**Consistent** The proposal will not result in any further loss of natural inland wetlands nor any loss of river extent. Kaikorai Stream has important mana whenua values, while the Regionally Significant Wetland Kaikorai Lagoon Swamp supports a range of ecological values as well as mana whenua values. The wetland areas comprise areas of significant indigenous vegetation and significant habitats of indigenous fauna. While not specifically identified in the proposed RPS, Kaikorai Lagoon Swamp has several values that would categorise it as an outstanding waterbody.
Policy 7: The loss of river values and extent is avoided to the extent practicable.	

	The stream depletion effect on Kaikorai Stream will be very small and is unlikely to result in any loss in values or extent. As set out in the evidence of Ms Morrison, and to some extent the evidence of Ms Annan, after implementation of mitigation measures to avoid or minimise adverse effects, the proposal will have minimal (not more than minor) residual adverse effects on ecology and natural character within the stream and wetland. There will be no direct effects on the stream or the significant wetland. There will be no loss of river values and wetland values will generally be protected. Water quality is likely to be maintained in the short term and improve in the longer term. Te Rūnanga o Ōtākou indicated that any discharge of leachate into the stream or estuary would have more than minor adverse effects on mauri i.e. a reduction in cultural values. Recommended consent conditions require investigation of leachate migration and, if found to be occurring, require implementation of measures to avoid or minimise effects. Therefore, any measurable leachate leakage and its effects on cultural values would be addressed adequately in the relative short-term.
Policy 9: The habitats of indigenous freshwater species are protected. *Policy 10: The habitat of trout and salmon is protected, insofar as this is consistent with Policy 9.*	**Consistent** As set out in the evidence of Mr Morrison, the adverse effects on aquatic values will be low. Therefore, the habitats of indigenous freshwater species, as well as habitat of trout and salmon, will be protected.

Policy 11: Freshwater is allocated and used efficiently, all existing over-allocation is phased out, and future over-allocation is avoided.	**Consistent** There are no allocation limits set for groundwater and the allocation for surface water in this location is not exceeded. The taking of groundwater and connected surface water is limited to that required to maintain hydraulic gradient on both sides of the leachate trench.
Policy 12: The national target (as set out in Appendix 3) for water quality improvement is achieved.	**Inconsistent** Appendix 3 of the NPS-FM states that the national target is to increase proportions of specified rivers (fourth order or greater) and lakes that are suitable for primary contact to at least 80% by 2030, and 90% no later than 2040, but also to improve water quality across all categories. Rivers are split into five categories based on two human contact water quality attributes: *E. coli* and *cyanobacteria*. The categories represent combined improvements in all regions. Data sourced from LAWA indicates that Kaikorai Stream at Brighton Road (upstream of the landfill) is currently graded in attribute band E for *E. coli* i.e. in the worst 25% of rivers, with a 'very likely degrading' trend over the last 10 years. On this basis, even before landfill contaminants are considered, the stream health is an impediment to the national target. Leachate contains *E. coli*. Any discharge of leachate from the landfill into the Kaikorai Stream, Lagoon, or Estuary would not contribute in a positive way to the attainment of this national target, although any volumes are presumed small. Recommended consent conditions require investigation of leachate migration and, if found to be occurring, require implementation of measures to avoid or minimise effects. Conditions also require monitoring for *E. coli* in onsite locations that would discharge to the receiving environment. Although measurable leachate leakage and its effects would be addressed adequately in the relative short-term, it is unlikely that this national target will be achieved. I would note that the landfill is only one contributor of contaminants to this receiving environment.

Policy 13: The condition of waterbodies and freshwater ecosystems is systematically monitored over time, and action is taken where freshwater is degraded, and to reverse deteriorating trends.	**Consistent** Monitoring as recommended in consent conditions will ensure that the condition of waterbodies and freshwater ecosystems are systematically monitored over time.
Policy 14: Information (including monitoring data) about the state of water bodies and freshwater ecosystems, and the challenges to their health and well-being, is regularly reported on and published.	**Consistent** To the extent that this policy imposes responsibilities upon individual applicants and consent holders, the recommended conditions would require the applicant to undertake monitoring and report upon the state of the Kaikorai Stream and estuary and the associated areas of natural inland wetlands.
Policy 15: Communities are enabled to provide for their social, economic, and cultural well-being in a way that is consistent with this National Policy Statement.	**Consistent** The proposal provides for the social, economic, and cultural wellbeing by providing continued local landfilling options until the modern Smooth Hill Landfill is commissioned. While adverse effects on freshwater likely cannot be completely avoided with the current infrastructure set up, the proposal remains an efficient use of existing infrastructure and provides for the efficient management of waste by the Applicant while minimising effects on the health of freshwater, including mauri. Consent conditions require that further information be gathered to assist with understanding about the extent to which landfill leachate is impacting on the receiving environment. In the unlikely event that the landfill is a significant contributor to cumulative effects within the freshwater receiving environment, there are additional actions available to the applicant to avoid or mitigate these adverse effects.
New Coastal Policy Statement (NZCPS)	
Provision	**Assessment**
Objective 1: To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by:	**Consistent** The NZCPS is assessed because of the proximity of the landfill to the coast rather than any specific or direct effects upon the coast.

• *maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature;* • *protecting representative or significant natural ecosystems and sites of biological importance and maintaining the diversity of New Zealand's indigenous coastal flora and fauna; and* • *maintaining coastal water quality, and enhancing it where it has deteriorated from what would otherwise be its natural condition, with significant adverse effects on ecology and habitat, because of discharges associated with human activity.*	While the site is not located within the coastal environment, and the impacts of the activity are not directly upon the coastal environment, there is potential for indirect effects on the coastal environment, specifically upon the tidal Kaikorai Estuary, as a result of the hydrological connection between the stream, Lagoon, and Estuary and the potential for contaminants to be transported into coastal waters. The proposal includes discharges of water and contaminants to freshwater. Sediment-laden stormwater will be treated in sedimentation ponds prior to discharge. These are expected to be effective in removing sediment. Sediment discharges will continue to reduce during the consent term following closure and capping of the landfill. The proposal will not result in a significant increase in sedimentation within the coastal environment. The leachate interception trench is effective at intercepting the majority of leachate, and the trench will be extended to encircle the landfill within the next three years. Leachate generation will reduce following closure and capping of the landfill. While the extent to which the landfill is contributing leachate into the freshwater receiving environment is subject to a degree of uncertainty, experts agree that the volume of leachate is likely to be small, and only a minor contributor to the observable cumulative effects in the freshwater environment upstream of the estuary. Monitoring is recommended to better understand the effects of leachate, and there are a variety of feasible engineering solutions that could be implemented to avoid or substantially minimise any discharge, should it found to be more significant than expected. As such, natural character, indigenous biodiversity, water quality, and the extent and characteristics of the coastal environment will be preserved and protected. The Treaty of Waitangi, tangata whenua, and Māori heritage are acknowledged, and Te Rūnanga o Ōtākou have been involved in this application via early engagement, preparation of a CIA, and through the submissions process.
Objective 2: To preserve the natural character of the coastal environment and protect natural features and landscape values through: • *recognising the characteristics and qualities that contribute to natural character, natural features and landscape values and their location and distribution;* • *identifying those areas where various forms of subdivision, use, and development would be inappropriate and protecting them from such activities; and* • *encouraging restoration of the coastal environment.*	
Objective 3: To preserve the natural character of the coastal environment and protect natural features and landscape values through: • *recognising the characteristics and qualities that contribute to natural character,* • *natural features and landscape values and their location and distribution;* • *identifying those areas where various forms of subdivision, use, and development would be inappropriate and protecting them from such activities; and* • *encouraging restoration of the coastal environment.*	
Policy 1: Extent and characteristics of the coastal environment	

1) *Recognise that the extent and characteristics of the coastal environment vary from region to region and locality to locality; and the issues that arise may have different effects in different localities.* 2) *Recognise that the coastal environment includes:* a) *the coastal marine area;* b) *islands within the coastal marine area;* c) *areas where coastal processes, influences or qualities are significant, including coastal lakes, lagoons, tidal estuaries, saltmarshes, coastal wetlands, and the margins of these;* d) *areas at risk from coastal hazards;* e) *coastal vegetation and the habitat of indigenous coastal species including migratory birds;* f) *elements and features that contribute to the natural character, landscape, visual qualities or amenity values;* g) *items of cultural and historic heritage in the coastal marine area or on the coast;* h) *inter-related coastal marine and terrestrial systems, including the intertidal zone; and* i) *physical resources and built facilities, including infrastructure, that have modified the coastal environment.*	
Policy 2: The Treaty of Waitangi, tangata whenua and Māori heritage *In taking account of the principles of the Treaty of Waitangi (Te Tiriti o Waitangi), and kaitiakitanga, in relation to the coastal environment:* *(a) recognise that tangata whenua have traditional and continuing cultural relationships with areas of the coastal environment, including places where they have lived and fished for generations;* *(b) involve iwi authorities or hapū on behalf of tangata whenua in the preparation of regional policy statements, and plans, by undertaking effective consultation with tangata whenua; with such consultation to be early, meaningful, and as far as practicable in accordance with tikanga Māori;*	

(c) with the consent of tangata whenua and as far as practicable in accordance with tikanga Māori, incorporate mātauranga Māori1 in regional policy statements, in plans, and in the consideration of applications for resource consents, notices of requirement for designation and private plan changes; *(d) provide opportunities in appropriate circumstances for Māori involvement in decision making, for example when a consent application or notice of requirement is dealing with cultural localities or issues of cultural significance, and Māori experts, including pūkenga, may have knowledge not otherwise available;* *(e) take into account any relevant iwi resource management plan and any other relevant planning document recognised by the appropriate iwi authority or hapū and lodged with the council, to the extent that its content has a bearing on resource management issues in the region or district; and* *(i) where appropriate incorporate references to, or material from, iwi resource management plans in regional policy statements and in plans; and* *(ii) consider providing practical assistance to iwi or hapū who have indicated a wish to develop iwi resource management plans;* *(f) provide for opportunities for tangata whenua to exercise kaitiakitanga over waters, forests, lands, and fisheries in the coastal environment through such measures as:* *(i) bringing cultural understanding to monitoring of natural resources;* *(ii) providing appropriate methods for the management, maintenance and protection of the taonga of tangata whenua;* *(iii) having regard to regulations, rules or bylaws relating to ensuring sustainability of fisheries resources such as taiāpure, mahinga mātaitai or other non commercial Māori customary fishing; and* *(g) in consultation and collaboration with tangata whenua, working as far as practicable in accordance with tikanga Māori, and recognising that tangata whenua have the right to choose not to identify places or values of historic, cultural or spiritual significance or special value:*	

(i) recognise the importance of Māori cultural and heritage values through such methods as historic heritage, landscape and cultural impact assessments; and *(ii) provide for the identification, assessment, protection and management of areas or sites of significance or special value to Māori, including by historic analysis and archaeological survey and the development of methods such as alert layers and predictive methodologies for identifying areas of high potential for undiscovered Māori heritage, for example coastal pā or fishing villages.*	
Policy 11: Indigenous biological diversity (biodiversity) *To protect indigenous biological diversity in the coastal environment:* *a) avoid adverse effects of activities on:* *i. indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists;* *ii. taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened;* *iii. indigenous ecosystems and vegetation types that are threatened in the coastal environment, or are naturally rare;* *iv. habitats of indigenous species where the species are at the limit of their natural range, or are naturally rare;* *v. areas containing nationally significant examples of indigenous community types; and* *vi. areas set aside for full or partial protection of indigenous biological diversity under other legislation; and* *b) avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on:* *i. areas of predominantly indigenous vegetation in the coastal environment;* *ii. habitats in the coastal environment that are important during the vulnerable life stages of indigenous species;* *iii. indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to*	

modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh; *iv. habitats of indigenous species in the coastal environment that are important for recreational, commercial, traditional or cultural purposes;* *v. habitats, including areas and routes, important to migratory species; and* *vi. ecological corridors, and areas important for linking or maintaining biological values identified under this policy.*	
Policy 13: Preservation of natural character *1) To preserve the natural character of the coastal environment and to protect it from inappropriate subdivision, use, and development:* *a) avoid adverse effects of activities on natural character in areas of the coastal environment with outstanding natural character; and* *b) avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on natural character in all other areas of the coastal environment;* *c) including by:* *d) assessing the natural character of the coastal environment of the region or district, by mapping or otherwise identifying at least areas of high natural character; and* *e) ensuring that regional policy statements, and plans, identify areas where preserving natural character requires objectives, policies and rules, and include those provisions.* *2) Recognise that natural character is not the same as natural features and landscapes or amenity values and may include matters such as:* *a) natural elements, processes and patterns;* *b) biophysical, ecological, geological and geomorphological aspects;*	

c) *natural landforms such as headlands, peninsulas, cliffs, dunes, wetlands, reefs, freshwater springs and surf breaks;* d) *the natural movement of water and sediment;* e) *the natural darkness of the night sky;* f) *places or areas that are wild or scenic;* g) *a range of natural character from pristine to modified; and* h) *experiential attributes, including the sounds and smell of the sea; and their context or setting.*	
Policy 22: Sedimentation 1) *Assess and monitor sedimentation levels and impacts on the coastal environment.* 2) *Require that subdivision, use, or development will not result in a significant increase in sedimentation in the coastal marine area, or other coastal water.* 3) *Control the impacts of vegetation removal on sedimentation including the impacts of harvesting plantation forestry.* 4) *Reduce sediment loadings in runoff and in stormwater systems through controls on land use activities.*	
Policy 23: Discharge of contaminants 1) *In managing discharges to water in the coastal environment, have particular regard to:* a) *the sensitivity of the receiving environment;* b) *the nature of the contaminants to be discharged, the particular concentration of contaminants needed to achieve the required water quality in the receiving environment, and the risks if that concentration of contaminants is exceeded; and* c) *the capacity of the receiving environment to assimilate the contaminants; and:* d) *avoid significant adverse effects on ecosystems and habitats after reasonable mixing;*	

e) use the smallest mixing zone necessary to achieve the required water quality in the receiving environment; and *f) minimise adverse effects on the life-supporting capacity of water within a mixing zone.* *2) In managing discharge of human sewage, do not allow:* *a) discharge of human sewage directly to water in the coastal environment without treatment; and* *b) the discharge of treated human sewage to water in the coastal environment, unless:* *i. there has been adequate consideration of alternative methods, sites and routes for undertaking the discharge; and* *ii. informed by an understanding of tangata whenua values and the effects on them.* *3) Objectives, policies and rules in plans which provide for the discharge of treated human sewage into waters of the coastal environment must have been subject to early and meaningful consultation with tangata whenua.* *4) In managing discharges of stormwater take steps to avoid adverse effects of stormwater discharge to water in the coastal environment, on a catchment by catchment basis, by:* *a) avoiding where practicable and otherwise remedying cross contamination of sewage and stormwater systems;* *b) reducing contaminant and sediment loadings in stormwater at source, through contaminant treatment and by controls on land use activities;* *c) promoting integrated management of catchments and stormwater networks; and* *d) promoting design options that reduce flows to stormwater reticulation systems at source.* *5) In managing discharges from ports and other marine facilities:*	

a) *require operators of ports and other marine facilities to take all practicable steps to avoid contamination of coastal waters, substrate, ecosystems and habitats that is more than minor;* b) *require that the disturbance or relocation of contaminated seabed material, other than by the movement of vessels, and the dumping or storage of dredged material does not result in significant adverse effects on water quality or the seabed, substrate, ecosystems or habitats;* c) *require operators of ports, marinas and other relevant marine facilities to provide for the collection of sewage and waste from vessels, and for residues from vessel maintenance to be safely contained and disposed of; and* d) *consider the need for facilities for the collection of sewage and other wastes for recreational and commercial boating.*	
National Policy Statement for Indigenous Biodiversity 2023 (NPSIB) – amended October 2024	
Provision	**Assessment**
(1) The objective of this National Policy Statement is: a) *to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity after the commencement date; and* b) *to achieve this:* i. *through recognising the mana of tangata whenua as kaitiaki of indigenous biodiversity; and* ii. *by recognising people and communities, including landowners, as stewards of indigenous biodiversity; and* iii. *by protecting and restoring indigenous biodiversity as necessary to achieve the overall maintenance of indigenous biodiversity; and* iv. *while providing for the social, economic, and cultural wellbeing of people and communities now and in the future.*	**Consistent** Indigenous biodiversity means the living organisms that occur naturally in New Zealand, and the ecological complexes of which they are part, including all forms of indigenous flora, fauna, and fungi, and their habitats. Within the landfill site there is little in the way of indigenous biodiversity. However, the Kaikorai Stream, Lagoon, and Estuary do contain areas of indigenous flora and fauna, and their habitats. Kaikorai Stream, Lagoon, and Estuary are identified as an Area of Significant Biodiversity Value in the DCC 2GP and in the RPW as an area of critical habitat for indigenous fauna dependent on wetlands and these areas are therefore considered to be SNAs per the definition in the NPS-IB.

Policy 1: Indigenous biodiversity is managed in a way that gives effect to the decision making principles and takes into account the principles of the Treaty of Waitangi.	Clause 3.15 of the NPS-IB provides for established activities, such as the Green Island Landfill, within and outside SNAs. In this case, the landfill will have increased in scale as compared with the scale at the commencement date of the NPS-IB. Based on expert evidence, this is not likely to result in an increased scale, intensity, or character of adverse effect. Nonetheless, the adverse effects of the proposal will generally be avoided or minimised in accordance with the effects management hierarchy such that there is no overall loss in indigenous biodiversity. Further, native riparian plantings as set out in the VRMP will increase indigenous habitat values.
Policy 2: Tangata whenua exercise kaitiakitanga for indigenous biodiversity in their rohe, including through: *(a) managing indigenous biodiversity on their land; and* *(b) identifying and protecting indigenous species, populations and ecosystems that are taonga; and* *(c) actively participating in other decision-making about indigenous biodiversity.*	
Policy 3: A precautionary approach is adopted when considering adverse effects on indigenous biodiversity.	
Policy 5: Indigenous biodiversity is managed in an integrated way, within and across administrative boundaries.	
Policy 6: Significant indigenous vegetation and significant habitats of indigenous fauna are identified as SNAs using a consistent approach.	
Policy 7: SNAs are protected by avoiding or managing adverse effects from new subdivision, use and development.	
Policy 8: The importance of maintaining indigenous biodiversity outside SNAs is recognised and provided for.	
Policy 9: Certain established activities are provided for within and outside SNAs.	
Policy 10: Activities that contribute to New Zealand's social, economic, cultural, and environmental wellbeing are recognised and provided for as set out in this National Policy Statement.	
Policy 13: Restoration of indigenous biodiversity is promoted and provided for.	
Policy 14: Increased indigenous vegetation cover is promoted in both urban and nonurban environments.	

Regional Policy Statements

Otago Regional Policy Statement 2019 (**ORPS 2019**)	
Provision	**Assessment**
Objective 1.1 Otago's resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities	**Consistent** Recognising that waste disposal is a necessary activity, the continuation of landfilling at the Green Island Landfill until the modern Smooth Hill Landfill is commissioned is an efficient use of existing infrastructure and presents the smallest economic, social, and cultural burden upon the Dunedin community, considering the available alternative options. The adverse effects of the continued operation will be avoided or minimised to ensure that the life-supporting capacity of soil, water, air, and ecosystems is safeguarded, and that natural and physical resources are able to meet the needs of future generations. Adverse effects will reduce over the life of the consent, following closure of the landfill.
Policy 1.1.1 Economic wellbeing Provide for the economic wellbeing of Otago's people and communities by enabling the resilient and sustainable use and development of natural and physical resources.	**Consistent** The use of the existing landfill site to meet the need for relatively short-term waste disposal is an efficient use of existing infrastructure and is economically preferable to out-of-district disposal of waste and will continue to provide employment for the local community.
Policy 1.1.2 – Social and cultural wellbeing and health and safety Provide for the social and cultural wellbeing and health and safety of Otago's people and communities when undertaking the subdivision, use, development and protection of natural and physical resources by all of the following: a) Recognising and providing for Kāi Tahu values; b) Taking into account the values of other cultures; c) Taking into account the diverse needs of Otago's people and communities; d) Avoiding significant adverse effects of activities on human health; e) Promoting community resilience and the need to secure resources for the reasonable needs for human wellbeing;	**Consistent** The Applicant has recognised and provided for Kāi Tahu values by adopting the recommendations made by mana whenua in the CIA. The values of other cultures and the diverse needs of Otago's people and communities have been taken into account through the commissioning of a social impact assessment, through ongoing engagement with direct neighbours and the Green Island community, and through the design of the extended landfill. Community resilience and securing of resources for reasonable wellbeing needs is promoted through the continued provision of an accessible local waste disposal option, which will be co-located with recycling and waste minimisation facilities.

f) Promoting good quality and accessible infrastructure and public services.	
Objective 1.2 Recognise and provide for the integrated management of natural and physical resources to support the wellbeing of people and communities in Otago.	**Consistent** The Applicant has recognised the interconnectedness of land, water, and air resources, and that the use of one resource may adversely affect another. The landfill activities will occur on land, but will involve discharges to water and air, as well as the abstraction of groundwater and connected surface water. Proposed mitigation measures and recommended consent conditions seek to manage the potential adverse effects of the proposal in a holistic way, recognising that efforts to mitigate singular effects may have implications for the management of other effects, and drawing on existing knowledge of the site and landfill operations, to support the wellbeing of communities and promote health ecosystems. Monitoring conditions will ensure that actual adverse effects are understood and methods are available to reduce or negate the risk of exceeding sustainable resource limits, in the unlikely event that the landfill is found to be a significant contributor to cumulative effects within the freshwater receiving environment.
Policy 1.2.1 Integrated resource management Achieve integrated management of Otago's natural and physical resources, by all of the following: a) Coordinating the management of interconnected natural and physical resources; b) Taking into account the impacts of management of one natural or physical resource on the values of another, or on the environment; c) Recognising that the value and function of a natural or physical resource may extend beyond the immediate, or directly adjacent, area of interest; d) Ensuring that resource management approaches across administrative boundaries are consistent and complementary; e) Ensuring that effects of activities on the whole of a natural or physical resource are considered when that resource is managed as subunits. f) Managing adverse effects of activities to give effect to the objectives and policies of the Regional Policy Statement. g) Promoting healthy ecosystems and ecosystem services; h) Promoting methods that reduce or negate the risk of exceeding sustainable resource limits.	
Objective 2.1 The principles of Te Tiriti o Waitangi are taken into account in resource management processes and decisions	**Consistent** The Applicant undertook engagement with Kāi Tahu and has adopted the conditions and recommendations put forth in the CIA by Te Rūnanga o Ōtākou. Following notification, a submission was made by Te Rūnanga o Ōtākou. The submission sets out the relationship mana whenua have with the Kaikarae Stream and Estuary, and this is summarised below.
Policy 2.1.2 Treaty principles Ensure that local authorities exercise their functions and powers, by: a) Recognising Kāi Tahu's status as a Treaty partner; and b) Involving Kāi Tahu in resource management processes implementation;	

c) Taking into account Kāi Tahu values in resource management decision-making processes and implementation; d) Recognising and providing for the relationship of Kāi Tahu's culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taoka; e) Ensuring Kāi Tahu have the ability to: i. Identify their relationship with their ancestral lands, water, sites, wāhi tapu, and other taoka; ii. Determine how best to express that relationship; f) Having particular regard to the exercise of kaitiakitaka; g) Ensuring that district and regional plans: i. Give effect to the Ngāi Tahu Claims Settlement Act 1998; ii. Recognise and provide for statutory acknowledgement areas in Schedule 2; iii. Provide for other areas in Otago that are recognised as significant to Kāi Tahu; h) Taking into account iwi management plans.	The Kaikarae Stream and Estuary is part of an integrated cultural landscape (wahi tūpuna) for mana whenua. Mahika kai practices underpin the Kāi Tahu relationship with Otago's rivers, lakes, wetlands, and estuaries. For mahika kai to be sustained, populations of species must be present across all life stages and must be plentiful enough for long term sustainable harvest. Safe access to mahika kai sites must be available. The transmission of mātauraka necessitates whānau being able to access healthy mahika kai to carry out customary practices. The restoration of the mauri of Kaikarae estuary to provide healthy habitat for mahika kai and taoka species is a long-term vision for Ōtākou whānau. The submission seeks further investigation into the migration of leachate into Kaikarae Stream and Estuary and the cumulative impacts, and further seeks that measures are developed to avoid or mitigate any leachate effects. Recommended consent conditions require monitoring, interpretation of results, and implementation of measures to avoid or mitigate adverse effects in the event that effects of leachate are identified. The submissions notes that the closure of the Green Island Landfill is a significant step towards achieving mana whenua's vision for the Kaikarae Stream and Estuary. Overall, the natural environment will be managed to recognise and provide for Kāi Tahu cultural values, interests, and wellbeing.
Objective 2.2 Kāi Tahu values, interests and customary resources are recognised and provided for.	
Policy 2.2.1 Manage the natural environment to support Kāi Tahu wellbeing by all of the following: a) Recognising and providing for their customary uses and cultural values in Schedules 1A and B; and, b) Safeguarding the life-supporting capacity of natural resources.	
Policy 2.2.2 Recognising sites of cultural significance Recognise and provide for the protection of wāhi tūpuna, by all of the following: a) Avoiding significant adverse effects on those values that contribute to the identified wāhi tūpuna being significant; b) Avoiding, remedying, or mitigating other adverse effects on the identified wāhi tūpuna;	

c) Managing the identified wāhi tūpuna sites in a culturally appropriate manner.	
Policy 2.2.3 Wāhi tūpuna and associated sites Enable Kāi Tahu relationships with wāhi tūpuna by all of the following: a) Recognising that relationships between sites of cultural significance are an important element of wāhi tūpuna; b) Recognising and using traditional place names	
Objective 3.1 The values (including intrinsic values) of ecosystems and natural resources are recognised and maintained, or enhanced where degraded.	**Consistent** The values of ecosystems and natural resources (as assessed in the relevant policies 3.1.1, 3.1.2, 3.1.3, 3.1.5, 3.1.6, 3.1.7, 3.1.8, 3.1.9, 3.1.10, and 3.1.13) are recognised and maintained. Where ecosystems are degraded, improvements are expected over the duration of the consent.
Policy 3.1.1 Fresh water Safeguard the life-supporting capacity of fresh water and manage fresh water to: a) Maintain good quality water and enhance water quality where it is degraded, including for: i. Important recreation values, including contact recreation; and, ii. Existing drinking and stock water supplies; b) Maintain or enhance aquatic: i. Ecosystem health; ii. Indigenous habitats; and, iii. Indigenous species and their migratory patterns. c) Avoid aquifer compaction and seawater intrusion; d) Maintain or enhance, as far as practicable: i. Natural functioning of rivers, lakes, and wetlands, their riparian margins, and aquifers; ii. Coastal values supported by fresh water; iii. The habitat of trout and salmon unless detrimental to indigenous biological diversity; and iv. Amenity and landscape values of rivers, lakes, and wetlands;	**Consistent** Water quality within the receiving environment is degraded and would likely not be suitable for contact recreation. Subject to the recommended consent conditions being adopted, the proposal will enable maintenance of water quality and over time improvement, noting that there are many contributors to the degraded state of the freshwater receiving environment which are not within control of the Applicant. Similarly, ecosystem health and habitat will be maintained and potentially improved over time. Natural functioning of rivers and wetland, coastal values supported by freshwater, habitat of exotic and indigenous fish, and amenity and landscape values will generally be maintained and likely to gradually improve over time, following closure of the landfill. Pest species will be managed, natural hazard effects will be avoided or mitigated, and remedied if necessary.

e) Control the adverse effects of pest species, prevent their introduction and reduce their spread; f) Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion; and, g) Avoid, remedy or mitigate adverse effects on existing infrastructure that is reliant on fresh water.	
Policy 3.1.2 Beds of rivers, lakes, wetlands, and their margins Manage the beds of rivers, lakes, wetlands, their margins, and riparian vegetation to: a) Safeguard the life supporting capacity of fresh water; b) Maintain good quality water, or enhance it where it has been degraded; c) Maintain or enhance bank stability; d) Maintain or enhance ecosystem health and indigenous biological diversity; e) Maintain or enhance, as far as practicable: i. Their natural functioning and character; and ii. Amenity values; f) Control the adverse effects of pest species, prevent their introduction and reduce their spread; and, g) Avoid, remedy or mitigate the adverse effects of natural hazards, including flooding and erosion.	**Consistent** The proposal does not include any activities on the bed of rivers or wetlands. The landfill itself is located on the margins of Kaikorai Stream and Estuary. The disposal of waste to land will occur within areas that are set back from the margins of the estuary. Stormwater and leachate management are expected to be generally effective at preventing discharges of sediment and leachate to water beyond the landfill site, thereby maintaining the life supporting capacity of freshwater. Where there is uncertainty about the volume of leachate that may be migrating offsite into the stream and estuary, recommended monitoring conditions and follow up actions will ensure that effects from leachate are identified and addressed. Natural character and amenity will be maintained, and gradually enhanced over time with the closure of the landfill and the implementation of the VRMP. Pests will be managed in accordance with best practice. Natural hazard and flooding effects will be avoided or minimised through the raising of the perimeter bund and manholes, chambers, and electrical controls for pump stations above predicted flood levels, and through resilience to seismic events.
Policy 3.1.3 Water allocation and use Manage the allocation and use of fresh water by undertaking all of the following: a) Recognising and providing for the social and economic benefits of sustainable water use; b) Avoiding over-allocation, and phasing out existing over-allocation, resulting from takes and discharges;	**Consistent** There are no allocation limits set for the underlying aquifer from which groundwater will be taken. The rate (approx. 0.5 L/s) at which connected surface water would be taken from the Kaikorai Stream via the leachate interception trench will not cause the surface water allocation for the catchment to be breached. The water allocation does not exceed what is

c) Ensuring the efficient allocation and use of water by: i. Requiring that the water allocated does not exceed what is necessary for its efficient use; ii. Encouraging the development or upgrade of infrastructure that increases efficiency; iii. Providing for temporary dewatering activities necessary for construction or maintenance.	necessary for its efficient use, being the maintenance of a hydraulic gradient on both sides of the leachate interception trench.
Policy 3.1.5 Coastal water Manage coastal water to: a) Maintain coastal water quality or enhance it where it has been degraded; b) Maintain healthy coastal ecosystems, the range of indigenous habitats provided by the coastal marine area, and the migratory patterns of indigenous coastal water species or enhance these values where they have been degraded; c) Maintain or enhance important recreation values; d) Maintain or enhance, as far as practicable: i. Coastal values; and ii. The habitats provided by the coastal marine area for trout and salmon unless detrimental to indigenous biological diversity. e) Control the adverse effects of pest species, prevent their introduction and reduce their spread.	**Consistent** The Kaikorai Stream, Kaikorai Lagoon Swamp, and the downstream Kaikorai Estuary are all hydrologically connected. Point source discharges of stormwater or diffuse discharges of leachate into freshwater are unlikely to lead to any degradation of coastal water quality, noting that any residual uncertainty about leachate effects will be resolved through monitoring, and measures to avoid or further minimise leachate-related effects are required to be implemented if the actual effects justify this. Ecosystems, coastal and recreation values will be maintained.
Policy 3.1.6 Air quality Manage air quality to achieve the following: a) Maintain good ambient air quality that supports human health, or enhance air quality where it has been degraded; b) Maintain or enhance amenity values.	**Partially Consistent, and increasingly consistent over time** The potential contaminants discharged to air from the site include landfill gas, including products of combustion; odour; and dust. Dust emissions and LFG emissions, including products of the combustion of LFG, are unlikely to result in adverse effects on human health or amenity values beyond the site boundary. With respect to odour emissions, the mitigation measures proposed by the Applicant are supported by Ms Freeman and should result in a reduction in the frequency, duration, and intensity of odours as experienced by sensitive receptors. However, it is unlikely that offsite odour impacts would be reduced to the extent that there is no

	offensive or objectionable odour from the landfill. Odour emissions may therefore contribute to a reduction in amenity values for some sensitive receptors but are not expected to reduce air quality to the extent that there would be any impacts upon human health. Odour emissions are expected to reduce following closure and final capping of the landfill.
Policy 3.1.8 Soil Erosion Minimise soil erosion resulting from activities, by undertaking all of the following: a) Using appropriate erosion controls and soil conservation methods; b) Maintaining vegetative cover on erosion prone land; c) Remediating land where significant soil erosion has occurred; d) Encouraging activities that enhance soil retention.	**Consistent** Erosion and sediment controls will be utilised during any earthworks on the site, including for capping works and installation and maintenance of infrastructure. Progressive capping will occur across the landfill, and capped areas will be grassed to an erosion-resistant state. Soil, in particular soil suitable for the landfill cap, is treated as a valuable resource and will be used judiciously on the site.
Policy 3.1.9 Ecosystems and indigenous biodiversity Manage ecosystems and indigenous biological diversity in terrestrial, freshwater and marine environments to: a) Maintain or enhance: i. Ecosystem health and indigenous biological diversity including habitats of indigenous fauna; ii. Biological diversity where the presence of exotic flora and fauna supports indigenous biological diversity; b) Maintain or enhance as far as practicable: i. Areas of predominantly indigenous vegetation; ii. Habitats of trout and salmon unless detrimental to indigenous biological diversity; iii. Areas buffering or linking ecosystems; c) Recognise and provide for: i. Hydrological services, including the services provided by tall tussock grassland; ii. Natural resources and processes that support indigenous biological diversity; d) Control the adverse effects of pest species, prevent their introduction and reduce their spread.	**Consistent** Ecosystem health, indigenous biodiversity, and habitats of indigenous fauna and vegetation will be maintained and, in some situations, enhanced. For example, the VRMP will enhance the indigenous riparian vegetation values around the site and along the margins of Kaikorai Stream and the areas of natural inland wetland. Pest animals will be managed in accordance with best practice.

Policy 3.1.10 Biodiversity in the coastal environment Avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on: a) Areas of predominantly indigenous vegetation in the coastal environment; b) Habitats in the coastal environment that are important during the vulnerable life stages of indigenous species; c) Indigenous ecosystems and habitats that are only found in the coastal environment and are particularly vulnerable to modification, including estuaries, lagoons, coastal wetlands, dunelands, intertidal zones, rocky reef systems, eelgrass and saltmarsh; d) Habitats of indigenous species in the coastal environment that are important for recreational, commercial, traditional or cultural purposes; e) Habitats, including areas and routes, important to migratory species; and f) Ecological corridors, and areas important for linking or maintaining biological values identified under this policy.	**Consistent** As per the assessment against the NZCPS, natural character, indigenous biodiversity in the coastal environment will be preserved and protected i.e. significant adverse effects will be avoided and other effects mitigated.
Policy 3.1.13 Environmental enhancement Encourage, facilitate and support activities that contribute to the resilience and enhancement of the natural environment, by where applicable: a) Improving water quality and quantity; b) Protecting or restoring habitat for indigenous species; c) Regenerating indigenous species; d) Mitigating natural hazards; e) Protecting or restoring wetlands; f) Improving the health and resilience of: i. Ecosystems supporting indigenous biological diversity; ii. Important ecosystem services, including pollination; g) Improving access to rivers, lakes, wetlands and their margins, and the coast;	**Consistent** The Kaikorai Stream, Lagoon, and Estuary are degraded and hence are good candidates for environmental enhancement. The extent to which the proposed activities will contribute to cumulative effects within the freshwater receiving environment is still subject to a degree of uncertainty, but recommended consent conditions will enable additional information to be obtained and interpreted, and additional mitigation measures implemented if it is found that the landfill is contributing to adverse water quality effects to a greater than expected degree. These measures, combined with the closure of the landfill, and proposed native vegetation planting, will contribute to the gradual recovery or enhancement of the nearby environment. After closure, there are areas along the margins of the Kaikorai Stream and Lagoon that could be opened for public access and recreation.

h) Buffering or linking ecosystems, habitats and areas of significance that contribute to ecological corridors; i) Controlling pest species.	
Objective 3.2 Otago's significant and highly-valued natural resources are identified and protected, or enhanced where degraded	**Consistent** The margins of the Kaikorai Stream and Estuary bordering the landfill to the north and west are identified as a Regionally Significant Wetland in the RPW and comprises areas of significant indigenous vegetation and significant habitats of indigenous fauna for the purposes of s6(c) of the RMA. Kaikorai Lagoon Swamp is also identified as being highly valued by Kāi Tahu for cultural and spiritual beliefs, values and uses, including mahika kai and waahi taoka. These areas will be identified and protected. Some improvements are likely throughout the consent term, for example to water quality and amenity values within the stream and wetland areas.
Policy 3.2.1 Identifying significant indigenous vegetation and habitats Identify areas and values of significant indigenous vegetation and significant habitats of indigenous fauna, using the attributes detailed in Schedule 4.	**Consistent** The margins of the Kaikorai Stream and Estuary bordering the landfill to the north and west are identified as a Regionally Significant Wetland in the RPW and comprise areas of significant indigenous vegetation and significant habitats of indigenous fauna for the purposes of s6(c) of the RMA.
Policy 3.2.2 Managing significant indigenous vegetation and habitats Protect and enhance areas of significant indigenous vegetation and significant habitats of indigenous fauna, by all of the following: a) In the coastal environment, avoiding adverse effects on: i. The values that contribute to the area or habitat being significant;	**Consistent** The activities will not affect significant indigenous vegetation or habitats of indigenous fauna within the coastal environment. There will be no active landfilling within any of the identified significant areas. Areas of significant indigenous vegetation will be maintained and potentially enhanced through the implementation of the VRMP. Significant

ii. Indigenous taxa that are listed as threatened or at risk in the New Zealand Threat Classification System lists; iii. Taxa that are listed by the International Union for Conservation of Nature and Natural Resources as threatened; iv. Indigenous ecosystems and vegetation types that are threatened in the coastal environment, or are naturally rare; v. Habitats of indigenous species where the species are at the limit of their natural range, or are naturally rare; vi. Areas containing nationally significant examples of indigenous community types; and vii. Areas set aside for full or partial protection of indigenous biological diversity under other legislation; c) Beyond the coastal environment, and in the coastal environment in significant areas not captured by a) above, maintaining those values that contribute to the area or habitat being significant; d) Avoiding significant adverse effects on other values of the area or habitat; e) Remedying when other adverse effects cannot be avoided; f) Mitigating when other adverse effects cannot be avoided or remedied; g) Encouraging enhancement of those areas and values that contribute to the area or habitat being significant; h) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread.	adverse effects on indigenous fauna values will be avoided, and otherwise mitigated.
Policy 3.2.5 Identifying highly valued natural features, landscapes and seascapes Identify natural features, landscapes and seascapes, which are highly valued for their contribution to the amenity or quality of the environment but which are not outstanding, using the attributes in Schedule 3.	**Consistent** Kaikorai Lagoon Swamp is also identified as being highly valued by Kāi Tahu for cultural and spiritual beliefs, values and uses, including mahika kai and waahi taoka. Cultural values are considered 'associative attributes' in Schedule 3.
Policy 3.2.6 Managing highly valued natural features, landscapes and seascapes Maintain or enhance highly valued natural features, landscapes and seascapes by all of the following:	**Consistent** Significant adverse effects on the cultural values that contribute to the high value ascribed to the Kaikorai Lagoon Swamp will be avoided. Other adverse effects on these values will be mitigated. The Te Rūnanga o Ōtākou

a) Avoiding significant adverse effects on those values that contribute to the high value of the natural feature, landscape or seascape; b) Avoiding, remedying or mitigating other adverse effects; c) Encouraging enhancement of those values that contribute to the high value of the natural feature, landscape or seascape.	submission states that any discharge of leachate into the stream or estuary would have more than minor adverse effects on mauri. Because there remains a degree of uncertainty about the magnitude of this effect, additional data will be gathered, and appropriate mitigation measures will be implemented, as set out in the recommended consent conditions. There are a variety of feasible engineering solutions that could be implemented to avoid or substantially minimise any discharge, should it found to be more significant than expected.
Policy 3.2.15 Identifying the significant values of wetlands Identify the significant values of wetlands, having regard to all of the following: a) Degree of naturalness; b) Amenity or landscape values; c) Kāi Tahu cultural values; d) Recreational values; e) Ecological function and values; f) Hydrological function and values; g) Geomorphological features and values.	**Consistent** The significant values of the Kaikorai Lagoon Swamp, which would include areas along the margins of Kaikorai Stream identified as natural inland wetlands, are set in the RPW. These are: • A1 Habitat for nationally or internationally rare or threatened species or communities; • A2 Critical habitat for the life cycles of indigenous fauna which are dependent on wetlands; • A4 High degree of wetland naturalness; • A5 Wetland scarce in Otago in terms of its ecological or physical character; • A6 Wetland which is highly valued by Kāi Tahu for cultural and spiritual beliefs, values and uses, including waahi taoka and mahika kai.
Policy 3.2.16 Managing the values of wetlands Protect the function and values of wetlands by all of the following: a) Maintaining the significant values of wetlands; b) Avoiding, remedying or mitigating other adverse effects; c) Controlling the adverse effects of pest species, preventing their introduction and reducing their spread; d) Encouraging enhancement that contributes to the values of the wetland; e) Encouraging the rehabilitation of degraded wetlands.	**Consistent** The significant values of the wetlands will generally be maintained. Adverse effects will be avoided or minimised, and pest species will be controlled. As set out in the evidence of Ms Morrison, and to some extent the evidence of Ms Annan, after implementation of mitigation measures to avoid or minimise adverse effects, the proposal will have minimal (not more than minor) residual adverse effects on ecology and natural character. There will be no direct effects on the significant wetland. The VRMP will contribute to the enhancement of some wetland values. Consent

	conditions require improvements in leachate management, and combined with the closure and final capping of the landfill will be a significant step towards reducing effects from the landfill and contributing to the gradual restoration of the wetlands, noting that there are many other contributors to this degradation. Water quality is likely to be maintained in the short term and improve in the longer term. Te Rūnanga o Ōtākou indicated that any discharge of leachate into the stream or estuary would have more than minor adverse effects on mauri i.e. a reduction in cultural values. Recommended consent conditions require investigation of leachate migration and, if found to be occurring, require implementation of measures to avoid or minimise effects. Therefore, any measurable leachate leakage and its effects on cultural values would be addressed adequately in the relative short-term.
Objective 4.1 Risks that natural hazards pose to Otago's communities are minimised. Policy 4.1.1 Identifying natural hazards Identify natural hazards that may adversely affect Otago's communities, including hazards of low likelihood and high consequence by considering all of the following: a) Hazard type and characteristics; b) Multiple and cascading hazards; c) Cumulative effects, including from multiple hazards with different risks; d) Effects of climate change; e) Using the best available information for calculating likelihood; f) Exacerbating factors. Policy 4.1.2 Natural hazard likelihood	**Consistent** Natural hazards of relevance are earthquake, flooding, and sea level rise. Flood and sea level rise hazards are identified by ORC and DCC and are mapped. The main landfill footprint is outside the areas at risk of flooding, but some low-lying areas around the perimeter of the landfill containing the access site road, leachate collection trench, and western sedimentation pond. The predicted increase in flood levels will not significantly impact either the flooding extent in the area of the landfill or the day-to-day operations. Raising the perimeter road, as well as the manholes, chambers, and electrical controls for the leachate pump stations above the predicted flood level will increase the resilience of the landfill and reduce the consequences of flooding and storm surge hazards. The diversion of flood

Using the best available information, assess the likelihood of natural hazard events occurring, over no less than 100 years.	flows by the taller bund does not increase the flood risk to any nearby residential dwellings. Stability assessments indicate that under an ULS seismic event, the landfill is likely to variably deform around the landfill perimeter due to liquefaction, lateral spreading, and slope movement. Remedial work and resilience planning is proposed to reduce the severity of the impact. Adverse effects on persons and the environment can be managed within acceptable tolerance levels.
Policy 4.1.3 Natural hazard consequence Assess the consequences of natural hazard events, by considering all of the following: a) The nature of activities in the area; b) Individual and community vulnerability; c) Impacts on individual and community health and safety; d) Impacts on social, cultural and economic wellbeing; e) Impacts on infrastructure and property, including access and services; f) Risk reduction and hazard mitigation measures; g) Lifeline utilities, essential and emergency services, and their co-dependence; h) Implications for civil defence agencies and emergency services; i) Cumulative effects; j) Factors that may exacerbate a hazard event.	
Policy 4.1.4 Assessing activities for natural hazard risk Assess activities for natural hazard risk to people, property and communities, by considering all of the following: a) The natural hazard risk identified, including residual risk; b) Any measures to avoid, remedy or mitigate those risks, including relocation and recovery methods; c) The long-term viability and affordability of those measures; d) Flow-on effects of the risk to other activities, individuals and communities; e) The availability of, and ability to provide, lifeline utilities, and essential and emergency services, during and after a natural hazard event.	
Policy 4.1.5 Natural hazard risk Manage natural hazard risk to people, property and communities, with particular regard to all of the following: a) The risk posed, considering the likelihood and consequences of natural hazard events;	

b) The implications of residual risk; c) The community's tolerance of that risk, now and in the future, including the community's ability and willingness to prepare for and adapt to that risk, and respond to an event; d) Sensitivity of activities to risk; e) The need to encourage system resilience; f) The social costs of recovery.	
Policy 4.2.1 Sea level rise Ensure Otago's people and communities are able to adapt to, or mitigate the effects of sea level rise, over no less than 100 years, by using: a) A sea level rise of at least 1 metre by 2115, relative to 1990 mean sea level (Otago Metric Datum); and b) Adding an additional 10mm per year beyond 2115, or the most up-to-date national or regional guidance on likely sea level rise.	
Objective 4.6 Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago	**Consistent** The unfavourable siting of this unlined landfill within an estuary and the proximity of residential neighbours means that adverse effects on the environment are difficult to completely avoid; however, existing and proposed management practices will ensure that human health is not harmed. Acknowledging that the quality of the environment is harmed simply by the presence of the landfill and that historic effects can't be undone, the recommended consent conditions will enable adverse effects of this proposal to be managed such that the quality of the environment beyond the landfill site will be maintained, and gradually improved throughout the life of the consent.
Policy 4.6.2 Use, storage and disposal of hazardous substances Manage the use, storage and disposal of hazardous substances, by all of the following: a) Providing secure containment for the storage of hazardous substances; b) Minimising risk associated with natural hazard events; c) Ensuring the health and safety of people;	**Consistent** The resource recovery area has a drop off facility for household hazardous wastes such as chemicals, batteries, and gas bottles. These are not landfilled, and instead are removed for offsite disposal at suitable facilities. Small amounts of hazardous wastes are expected within the general waste stream. In addition, special and hazardous wastes (pre-approved) are

d) Avoiding, remedying or mitigating adverse effects on the environment; e) Providing for the development of facilities to safely store, transfer, process, handle and dispose of hazardous substances; f) Ensuring hazardous substances are treated or disposed of in accordance with the relevant regulatory requirements; g) Restricting the location and intensification of activities that may result in reverse sensitivity effects near authorised facilities for hazardous substance bulk storage, treatment or disposal; h) Encouraging the use of best management practices.	received and landfilled, subject to meeting specific waste acceptance criteria. Special handling procedures are applied to specific special or hazardous wastes. Some of these wastes require their own dedicated disposal pit. Beyond special acceptance and handling practices, which align with MfE Module 2 guidelines and current best practice and industry standards, the adverse effects of hazardous substances accepted at the landfill are managed in the same manner as other waste.
Policy 4.6.3 Hazardous substance collection, disposal and recycling Promote and facilitate the establishment of hazardous substance collection, disposal and recycling services across the region.	
Policy 4.6.4 Identifying contaminated land Identify sites of known or potentially contaminated land in Otago.	**Consistent** Landfilling is HAIL category G3. The entire landfill operational area is contaminated. The primary methods for the management of contaminants include progressive capping and ensuring soils are stabilised in an erosion-resistant state as soon as possible, treatment of surface runoff water in sediment retention ponds, and the interception of leachate via the trench. These methods are expected to be generally effective and will ensure that human health is protected and adverse effects on the environment are minimised. The potential limitations of the leachate interception trench will be understood through ongoing monitoring, and if required additional mitigation measures are available to protect the environment.
Policy 4.6.5 Managing contaminated land Ensure contaminated or potentially contaminated land does not pose an unacceptable risk to people and the environment, by: a) Assessing and, if required, monitoring contaminant levels and environmental risks; b) Protecting human health in accordance with regulatory requirements; c) Minimising adverse effects of the contaminants on the environment.	
Policy 4.6.6 Waste management Promote an integrated approach to the management of the use, storage and disposal of waste materials.	**Consistent** The Applicant has committed to develop and implement a comprehensive waste management and diverted material system for Dunedin, which aligns with the applicant's responsibility under the Waste Minimisation Act 2008 *'to promote effective and efficient waste management and minimisation within its district'.* Reuse, recycling, and recovery of resource from waste is the primary function of the RRPP, which will be located at the Green Island Landfill. However, there remains a need for waste disposal. In the relative short-term, this is best achieved through the continued
Policy 4.6.7 Waste minimisation responses Encourage activities to give effect to the waste minimisation hierarchy of responses, by: a) Giving preference to reducing waste generated; then b) Reusing waste; then c) Recycling waste; then	

d) Recovering resources from waste; then e) Treatment; then f) Disposing residual waste to a disposal facility	operation of the Green Island Landfill. Longer term, waste disposal will occur at the Smooth Hill Landfill, which will be a modern facility with comparatively fewer adverse effects.
Policy 4.6.8 Waste storage, recycling, recovery, treatment and disposal Manage the storage, recycling, recovery, treatment and disposal of waste materials by undertaking all of the following: a) Providing for the development of facilities and services for the storage, recycling, recovery, treatment and disposal of waste materials; b) Ensuring the health and safety of people; c) Minimising adverse effects on the environment; d) Minimising risk associated with natural hazard events; e) Restricting the location of activities that may result in reverse sensitivity effects near waste management facilities and services.	
Objective 5.4 Adverse effects of using and enjoying Otago's natural and physical resources are minimised	**Consistent** The conditions proposed by the Applicant, and the additional conditions recommended in Appendix C of the s42A report, will ensure that the adverse effects of the proposal are minimised to the extent practicable, taking into account the generally unfavourable location of the landfill with respect to water effects, and the proximity of residential neighbours.
Policy 5.4.1 Offensive or objectionable discharges Manage offensive or objectionable discharges to land, water and air by: a) Avoiding significant adverse effects of those discharges; b) Avoiding significant adverse effects of discharges of human or animal waste directly, or in close proximity, to water or mahika kai sites; c) Avoiding, remedying or mitigating other adverse effects of those discharges.	**Partially consistent, and increasingly consistent over time** The proposal involves discharges to land, water, and air. Discharges to water and land are not offensive or objectional or expected to result in significant adverse effects. Adverse effects of these discharges will be avoided or minimised to the extent practicable. Adverse odour effects will be avoided, remedied, and mitigated to the extent practicable; however, some potential remains for offensive and objectionable odour discharges, particularly during the period that the landfill continues to receive waste. Offensive and objectionable discharges are expected to be infrequent, and would therefore not be considered significantly adverse. Odour effects will reduce after landfill closure.

Policy 5.4.2 Adaptive management approach Apply an adaptive management approach, to avoid, remedy or mitigate actual and potential adverse effects that might arise and that can be remedied before they become irreversible, by both: a) Setting appropriate indicators for effective monitoring of those adverse effects; and b) Setting thresholds to trigger remedial action before the effects result in irreversible damage.	**Consistent** There is a degree of residual uncertainty about the extent to which the landfill is contributing to adverse effects within the freshwater receiving environment, although experts do expect this to be small. Nonetheless, taking a precautionary approach, the recommended consent conditions set out a monitoring programme for groundwater and surface water that would enable the identification and characterisation of adverse effects associated with offsite leachate migration. Where adverse effects upon Kaikorai Stream are directly attributable to landfill leachate, measures to avoid or mitigate these effects must be initiated. I am satisfied that such measures exist and are available to the Applicant, noting that they are likely to be expensive and invasive, hence they are not recommended as standard mitigation measures from the outset. In terms of air quality, appropriate mitigation measures have been proposed by the Applicant and additional measures are recommended in consent conditions. Monitoring will ensure that effects are as expected, and contingency methods are available to be implemented. Principles of adaptive management are incorporated into consent conditions, in the sense that actions needs to be taken to investigate unexpected monitoring data.
Policy 5.4.3 Precautionary approach to adverse effects Apply a precautionary approach to activities where adverse effects may be uncertain, not able to be determined, or poorly understood but are potentially significant or irreversible.	
Policy 5.4.5 Pest plants and animals Control the adverse effects of pest species, prevent their introduction, reduce their spread and enable the removal and destruction of material for biosecurity purposes, to safeguard all of the following: a) The viability of indigenous species and habitats for indigenous species; b) Ecosystem services that support economic activities; c) Water quality and water quantity; d) Soil quality; e) Human and animal health; f) Recreation values; g) Landscapes, seascapes and natural character;	**Consistent** Consent conditions proposed by the Applicant require eradication, as far as possible, of pest plants, rodents, mustelids, and feral cats within the landfill operational area to safeguard the elements listed in this policy. The eradication of pest animals also reduces nuisance and amenity effects for nearby residential neighbours.

h) Primary production	
Proposed Otago Regional Policy Statement (P-ORPS 2021) and Proposed Otago Regional Policy Statement – Freshwater Instrument Components 2021	
Provision	**Assessment**
MW-O1 Principles of Te Tiriti o Waitangi The principles of Te Tiriti o Waitangi are given effect in resource management processes and decisions, utilising a partnership approach between councils and Papatipu Rūnaka to ensure that what is valued by mana whenua is actively protected in the region.	**Consistent** The Applicant undertook engagement with Kāi Tahu and has adopted the conditions and recommendations put forth by Te Rūnanga o Ōtākou in their CIA. In doing so, the Applicant is giving effect to the principles of Te Tiriti o Waitangi, ensuring that what is valued by mana whenua is actively protected in the region, and supporting Kāi Tahu hauora. Ongoing engagement through the submission process is occurring.
MW-P3 Supporting Kāi Tahu hauora The natural environment is managed to support Kāi Tahu hauora by: (1) recognising that Kāi Tahu hold an ancestral and enduring relationship with all whenua, wai māori and coastal waters within their takiwā, (2) protecting customary uses, Kāi Tahu values and relationships as identified by Kāi Tahu to resources and areas of significance, and restoring these uses and values where they have been degraded by human activities, (3) safeguarding the mauri and life-supporting capacity of natural resources, recognising the whakapapa connections of Kāi Tahy with these resources as taoka, and the connections to practices such as mahika kai, and (4) working with Kāi Tahu to incorporate mātauraka into resource management processes and decision-making.	
IM–O1 – Long term vision (mō tatou, ā, mō kā uri ā muri ake nei) The management of natural and physical resources, by and for the people of Otago, in partnership with Kāi Tahu, achieves a healthy and resilient natural environment, including the ecosystem services it provides and supports the well-being of present and future generations.	**Consistent** The proposal will ensure that natural environment, and the ecosystem services that it offers, are healthy, resilient, and safeguarded, and the wellbeing of present and future generations supported, through the implementation of best practicable mitigation measures for discharges, as well as ongoing monitoring and adaptive management to ensure that ongoing effects are understood and responded to.
IM-O2 Ki uta ki tai	**Consistent**

The management of natural and physical resources embraces ki uta ki tai, recognising that the environment is an interconnected system which depends on its connections to flourish and must be managed as an interdependent whole.	The Applicant has recognised the interconnectedness of land, water, and air resources, and that the use of one resource may adversely affect another. The landfill activities will occur on land, but will involve discharges to water and air, as well as the abstraction of groundwater and connected surface water. Proposed mitigation measures and recommended consent conditions seek to manage the potential adverse effects of the proposal in a holistic way, recognising that efforts to mitigate singular effects may have implications for the management of other effects.
IM–O3 –Sustainable impact Otago's communities provide for their social, economic, and cultural well-being in ways that support or restore environmental integrity, form, functioning, and resilience, so that the life-supporting capacities of air, water, soil, and ecosystems are sustainably managed, for future generations.	**Consistent** The proposed activities will be managed such that the life-supporting capacity of air, water, soil, ecosystems, and indigenous biodiversity will be supported and sustainably managed. The closure of the landfill will contribute to the gradual restoration of the integrity, functioning, and resilience of the Kaikorai Stream, wetland, and estuary, noting that there are many other contributors to the existing degraded state of this receiving environment that are not within the control of the Applicant.
IM-O4 – Climate change Otago's communities, including Kāi Tahu, understand what climate change means for their future, and responses to climate change in the region (including climate change adaptation and climate change mitigation): (1) are aligned with national level climate change responses, (2) assist with achieving the national target for emissions reduction, including by having a highly renewable energy system, and (3) are recognised as integral to achieving the outcomes sought by this RPS.	**Consistent** Climate change impacts are modelled and understood with respect to the potential flooding and storm surge effects. Mitigation measures are proposed that will increase the resilience of the landfill without creating new adverse effects for nearby residential properties. Landfill gas will be captured and flared, which is consistent with the NZ Emissions Reduction Plan.
IM–P3 – Providing for mana whenua cultural values in achieving integrated management Recognise and provide for the relationship of Kāi Tahu with natural resources by: (1) enabling mana whenua to exercise rakatirataka and kaitiakitaka,	**Consistent** The Applicant undertook engagement with Kāi Tahu and has adopted the conditions and recommendations put forth by Te Rūnanga o Ōtākou. Ongoing engagement through the submission process is occurring.

(2) facilitating active participation of mana whenua in resource management processes and decision making, (3) incorporating mātauraka Māori in processes and decision-making, and (4) ensuring resource management provides for the connections of Kāi Tahu to wāhi tūpuna, wai māori (including awa [rivers] and roto [lakes] and wai tai (including te takutai moana [coastal marine area]) and mahika kai and habitats of taoka species.	
IM–P5 – Managing environmental interconnections Manage the use and development of interconnected natural and physical resources by recognising: (1) situations where the value and function of a natural or physical resource extends beyond the immediate, or directly adjacent, area of interest, (2) situations where effects of an activity extend to a different part of the environment, and (3) the impacts of management of one natural or physical resource on the values of another, or on the environment.	**Consistent** In this case, the discharge of waste to land has impacts upon soil, water, and air resources, both within and beyond the site. The freshwater receiving environment consists of streams and areas of wetland, which are hydrologically connected to a tidal estuary and ultimately coastal waters. These connections and relationships are recognised, and adverse effects are managed holistically through a suite of mitigation measures.
IM–P6 – Managing uncertainties In resource management decision-making, manage uncertainties by using the best information available at the time, including scientific data and mātauraka Māori, and: (1) taking all practicable steps to reduce uncertainty, and a) in the absence of complete and scientifically robust data, using information obtained from modelling, reliable partial data, and local knowledge, with preference for sources of information that provide the greatest level of certainty, and b) avoiding unreasonable delays in making decisions because of uncertainty about the quality or quantity of the information available, and	**Consistent** There is a degree of residual uncertainty about the extent to which the landfill is contributing to adverse effects within the freshwater receiving environment, although based on the limited data available, experts do expect this to be small. The available data, the opinions of technical experts, and the imposition of consent conditions requiring ongoing monitoring and adaptive management are utilised to avoid unreasonable delays in decision making. This is appropriate because the recommended monitoring is likely to provide reliable evidence of the actual effects, and there are physically achievable, although expensive and invasive, engineering solutions that can be implemented to avoid or minimise adverse effects before they become irreversible or significantly adverse.

(2) adopting a precautionary approach, including through use of adaptive management, towards activities whose effects are uncertain, unknown, or a little understood, but potentially significantly adverse.	
IM–P8 – Effects of climate change Recognise and provide for the effects of climate change by: (1) identifying the effects of climate change in Otago, including from the perspectives of Kāi Tahu as mana whenua, (2) assessing how the effects are likely to change over time, and (3) taking into account those changes in resource management processes and decisions.	**Consistent** As described for IM-O4, the effects (physical effects and the implications for mana whenua effects) of climate change in relation to the landfill are modelled, understood, and able to be appropriately mitigated.
IM-P10 – Climate change adaptation and climate change mitigation Identify and implement climate change adaptation and climate change mitigation methods for Otago that: (1) minimise the effects of climate change to existing activities and the wider environment, (3) provide Otago's communities, including Kāi Tahu, with the best chance to thrive, and (4) enhance environment, social, economic, and cultural resilience to the adverse effects of climate change, including by facilitation activities that reduce those effects, and (5) protects Otago's existing renewable electricity facilities and provides for the development of new renewable electricity generation and infrastructure.	
IM–P13 – Managing cumulative effects In resource management decision-making, recognise and manage the impact of cumulative effects on the form, functioning and resilience of Otago's environment (including resilience to climate change) and the opportunities available for future generations.	**Consistent** In this case, the cumulative effects of most importance relate to the freshwater receiving environment. Kaikorai Stream and Estuary are in poor health as a result of historic and ongoing contaminant inputs, and do not support recreational or mana whenua values. The extent to which the current and proposed landfill activities will contribute to the adverse effects within the receiving environment is not known with certainty, although expert evidence suggests the input is likely to be small, and will decrease over the life of the consent, particularly once the landfill is closed

	and capped. Monitoring and adaptive management processes will be used to gather further data about the landfill contribution to cumulative effects and react appropriately to avoid or minimise contaminant discharges to freshwater from the landfill.
AIR-O1 Ambient air quality Ambient air quality provides for the health and well-being of the people of Otago, amenity values and mana whenua values, and the life-supporting capacity of ecosystems.	**Partially Consistent, and increasingly consistent over time** Ambient air quality will continue to provide for the health and wellbeing needs of people, and the life-supporting capacity of ecosystems. Amenity values may be adversely impacted by odour effects to a small degree on a local scale. The Kaikarae Stream and Estuary is part of an integrated cultural landscape (wahi tūpuna) for mana whenua so it is possible that mana whenua values would be adversely impacted by odour. Odour effects will reduce following closure of the landfill.
AIR-O2 Discharges to air The localised adverse effects of discharges to air do not compromise human health, amenity values, and mana whenua values and the life-supporting capacity of ecosystems.	
AIR-P1 Maintain ambient air quality Ambient air quality is, at a minimum, maintained across Otago by: (1) ensuring discharges to air comply with ambient air quality limits, including ambient air quality standards and guidelines, where those have been set as limits, and (2) where limits, including ambient air quality standards and guidelines, have not been set, only allowing discharges to air if the adverse effects on ambient air quality are avoided, remedied or mitigated.	**Consistent** (1) Consistent – where the NES-AQ sets limits for contaminants, these are not exceeded. There are no relevant limits to consider for odour. (2) Consistent – the adverse odour effects will be avoided, remedied, or mitigated to the extent practicable.
AIR-P3 Providing for discharges to air Provide for discharges to air that do not adversely affect human health, amenity values, mana whenua values and the life supporting capacity of ecosystems.	**Partially Consistent, and increasingly consistent over time** This proposal is likely to result in odours that could adversely affect amenity values, and potentially mana whenua values, but will not adversely impact human health, nor the life-supporting capacity of ecosystems. Odour effects are likely to reduce once the landfill is closed and capped. As written, this policy does not appear to allow for any level of adverse effect on the listed elements, so the proposal cannot be completely consistent with this policy; rather, in my opinion it is partly consistent, and likely increasingly consistent over time.
AIR-P4 Managing certain discharges Manage the adverse effects of discharges to air by:	**Partially consistent, and increasingly consistent over time**

(1) avoiding noxious or dangerous effects, (2) ensuring discharges to air do not cause offensive or objectionable effects, (3) avoiding, remedying or mitigating other adverse effects from discharges to air, including but not limited to discharges arising from: a) outdoor burning of organic material, b) agrichemical and fertiliser applications, c) primary production activities, d) activities that produce dust, and e) industrial and trade activities. (4) locating new sensitive activities to avoid potential reverse sensitivity effects from existing consented or permitted discharges to air, unless these can be appropriately managed.	The discharges to air are not expected to be noxious or dangerous. However, even after the implementation of the recommended comprehensive mitigation measures, offensive or objectional odours may be experienced by sensitive receptors on occasion. This is due in part to the proximity of sensitive receptors. Following closure and final capping of the landfill, offensive and objectionable odours are expected to reduce for all sensitive receptors. Other adverse effects, including from dust, LFG, and combustion gases, will be avoided, remedied, or mitigated to the extent practicable. These measures are included in the suite of recommended consent conditions.
AIR-P6 Impacts on mana whenua values Ensure that discharges to air do not adversely affect mana whenua values by having particular regard to values and areas of significance to mana whenua, including wāhi tūpuna, wāhi tapu and wāhi taoka.	**Partially consistent, and increasingly consistent over time** The CIA identifies that discharges to air can adversely affect health and mana whenua values, and may be culturally offensive, particularly when occurring near to Kāi Tahu ki Otago sites of significance. Kaikarae Estuary, Kaikarae Stream, and other associated waterways make up an area which has traditional significance to mana whenua. On balance, no conditions relating to air quality have been put forth by Te Rūnanga o Ōtākou in their CIA or submission. Adverse effects will be avoided, remedied, or mitigated to the extent practicable by the measures set out in the recommended consent conditions. Following closure and final capping of the landfill, offensive and objectionable odours are expected to reduce.
CE–O1A – Te Mauri o te Moana The health of Otago's coastal water is: (a) protected from inappropriate activities so as to protect the health and well-being of the wider environment and the mauri of coastal waters, and	**Consistent** While the site is not located within the coastal environment, and the impacts of the activity are not directly upon the coastal environment, there is potential for indirect effects on the coastal environment, specifically upon the tidal Kaikorai Estuary, as a result of the hydrological connection

(b) restored where it is degraded, including through enhancing coastal water quality where it has deteriorated from its natural condition.	between the stream, lagoon, and estuary and the potential for contaminants to be transported into coastal waters. Mitigation measures are expected to be effective, and where there is residual uncertainty in effects, monitoring and adaptive management processes are embedded in recommended consent conditions. Integrated management will ensure that the coastal environment and coastal water quality are safeguarded.
CE–O1 – Safeguarding the coastal environment (Te Hauora o Te Tai o Arai Te Uru) The health, integrity, form, functioning and resilience of Otago's coastal environment is safeguarded so that: (2) coastal water quality supports healthy ecosystems, natural habitats, water-based recreational activities, existing activities, and customary uses, including practices associated with mahika kai and kaimoana, (3) the dynamic and interdependent natural biological and physical processes in the coastal environment are maintained or enhanced, (4) the diversity of indigenous coastal flora and fauna is maintained, and areas of significant indigenous biodiversity are protected, (5) surf breaks of national significance are protected, (6) the interconnectedness of wai Māori and wai tai is protected, and the effects of terrestrial and fresh water uses and activities on coastal waters and ecosystems, are recognised and understood, and (7) the ongoing effects of climate change within the coastal environment are identified and planned for.	
CE-O4 – Mana moana The enduring cultural relationship of Kāi Tahu with Otago's coastal environment is recognised and provided for, and mana whenua are able to: (1) exercise their rakatirataka role, manaakitaka and their kaitiaki duty of care within the coastal environment, and (2) engage in customary fishing and other mahika kai.	
CE-P1A – Integrated management/ki uta ki tai Implement an integrated approach to managing Otago's coastal environment that: (1) recognises the interactions, ki uta ki tai, between the terrestrial environment, fresh water, and the coastal marine area, including the migration of fish species between fresh water and coastal water,	

(2) provides for the natural functioning of coastal processes at the physical interface between land, fresh water, and the coastal water, (3) ensures the effects of the use and development of land and fresh water maintain or enhance the health and well-being of the coastal environment, and (4) takes into account the ongoing effects of climate change.	
CE-P3 – Coastal water quality Manage water quality in the coastal environment by: (1A) restoring coastal water quality where it is considered to have deteriorated to the extent described within CE-P2(2), (1) maintaining or enhancing healthy coastal ecosystems, indigenous habitats provided by the coastal environment, indigenous vegetation and fauna, and the migratory patterns of indigenous coastal water species, (2) sustaining Kāi Tahu relationships with and customary uses of coastal water, (3) maintaining or enhancing recreation opportunities and existing uses of coastal water, (5) controlling activities outside the coastal marine area that have an effect on coastal water quality, (6) maintaining or enhancing water quality within areas of coastal water identified in CE-P2(3) where mana whenua have a particular cultural interest, and (7) setting appropriate limits and targets for coastal water quality, including for ecosystem health, habitats of taoka species, sediment, contact recreation and safe kaimoana gathering.	
LF–WAI–O1 – Te Mana o te Wai	**Partially Consistent**

Otago's water bodies and their health and well-being are protected, and restored where they are degraded, so that the mauri of those water bodies is protected, and the management of land and water recognises and reflects that: (1) water is the foundation and source of all life – na te wai ko te hauora o ngā mea katoa, (2) there is an integral kinship relationship between water and Kāi Tahu whānui, and this relationship endures through time, connecting past, present and future, (3) each water body has a unique whakapapa and characteristics, (4) fresh water, land and coastal water have a connectedness that supports and perpetuates life, and (5) Kāi Tahu exercise rakatirataka, manaakitaka and their kaitiakitaka duty of care and attention over wai and all the life it supports, and (6) all people and communities have a responsibility to exercise stewardship, care, and respect in the management of fresh water.	*Of the freshwater planning instruments, this objective is the only provision for which an appeal is not resolved.* In their submission, Te Rūnanga o Ōtākou state that the loss of leachate to Kaikorai Stream would have more than minor impacts upon the mauri of the stream and estuary and the aspirations of Te Rūnanga o Ōtākou to provide healthy habitat for mahika kai and taoka species. Hence, enabling such a discharge would not give effect to te mana o te wai. Excepting this, the proposal will generally enable freshwater to be managed in a way that is protective of the health and wellbeing and mauri of freshwater. Monitoring and adaptive management conditions will ensure that the contribution of the landfill to cumulative effects within the catchment is better understood, and measures will be taken to avoid or minimise adverse effects such that the health of fresh water is protected. This policy also requires that degraded waterways are restored. The recommended consent conditions will mitigate adverse effects during the period of continued landfilling and during the closure phase. Effects are expected to reduce gradually throughout the life of the consents. However, while mitigation of adverse effects will contribute to improvement within the receiving environment, these will not be sufficient to restore the health of the waterbody. I would note that even if all adverse effects on freshwater were completely avoided, the health of the freshwater receiving environment would not be restored, because there are many other contaminant inputs into the catchment.
LF–WAI–P1 – Prioritisation In all decision-making affecting fresh water in Otago, prioritise: (1) first, the health and well-being of water bodies and freshwater ecosystems (te hauora o te wai) and the exercise of mana whenua to uphold this,	**Consistent** *Note: Section 104(2F) of the RMA only directs that consent authorities must not have regard to clause 1.3(5) or 2.1 of the NPSFM 2020 (which relates to the hierarchy of obligations in the NPSFM 2020). However, it does not otherwise direct that consent authorities must not have regard to provisions of other planning documents, such as regional policy statements, that*

(2) second, the health needs of people, (te hauora o te tangata) interacting with water through: (a) ingestion (such as drinking of water and consuming resources harvested from the water body), (b) immersive activities (such as harvesting resources and primary contact), and (c) personal hygiene activities (such as food preparation, utensil washing, oral hygiene, showering and flushing the toilet), and (3) third, the ability of people and communities to provide for their social, economic, and cultural well- being, now and in the future.	*similarly relate to the hierarchy of obligations. For completeness, LF-WAI-P1 has been given regard to for the purposes of this proposal, but in any case consideration of this policy, or not, does not have any substantial impact on its own on the recommendation in respect of the proposal.* Within the constraints imposed by historic decision making regarding the location of the Green Island landfill, which could in no way be construed as protecting the health of freshwater, the management of adverse effects that result from this proposal does follow this hierarchy. The goal of the landfill's effects management process and the recommended mitigation measures is to protect the health and wellbeing of freshwater. In doing so, the health needs of people are also prioritised, noting that there are no abstractive uses of groundwater in this area, nor any drinking water provided by the stream or lagoon. Landfilling is an activity that generally provides for the economic and social wellbeing of the community, in that it enables the controlled disposal of waste that is produced by people. The Applicant has recognised that in protecting the health of freshwater, and the health needs of people, ultimately the social, cultural, and economic wellbeing of people will be enhanced.
LF–WAI–P2 Mana whakahaere Recognise and give practical effect to Kāi Tahu rakatirataka in respect of fresh water by: (1) facilitating partnership with, and the active involvement of, mana whenua in freshwater management and decision-making processes, (2) sustaining the environmental, social, cultural and economic relationships of Kāi Tahu with water bodies, (3) providing for a range of customary uses, including mahika kai, specific to each water body, (4) incorporating mātauraka into decision making, management and monitoring processes, and (5) managing wai and its connections with whenua in a holistic and interconnected way – ki uta ki tai.	**Consistent** The Applicant undertook engagement with Kāi Tahu and has adopted the conditions and recommendations put forth by Te Rūnanga o Ōtākou, which include ongoing active participation by mana whenua via consent conditions and through the submissions process. Wai, and its connections with whenua, are managed in a holistic way.

LF–WAI–P3 Integrated management/ki uta ki tai Manage the use of fresh water and land, using an integrated approach that is consistent with tikaka and kawa, that: (1) sustains and, to the greatest extent practicable, restores or improves: (a) the natural connections and interactions between water bodies (large and small, surface and ground, fresh and coastal, permanently flowing, intermittent and ephemeral), (b) the natural connections and interactions between land and water, from the mountains to the sea, (c) the habitats of mahika kai and indigenous species, including taoka species associated with the water bodies, (4) manages the effects of the use and development of land to maintain or enhance the health and wellbeing of freshwater, coastal water and associated ecosystems, (5) encourages the coordination and sequencing of regional or urban growth to ensure it is sustainable, (6) has regard to foreseeable climate change risks, and the potential effects of climate change on water bodies, including on their natural functioning, (7) has regard to cumulative effects, and (8) applies a precautionary approach where there is limited available information or uncertainty about potential adverse effects, in accordance with IM-P6	**Consistent** In this case, the discharge of waste to land has impacts upon soil, water, and air resources, both within and beyond the site. The freshwater receiving environment consists of streams and areas of wetland, which are hydrologically connected to a tidal estuary and ultimately coastal waters. These connections and relationships are recognised, and adverse effects are managed holistically through a suite of mitigation measures.
LF-WAI-P4 – Giving effect to Te Mana o te Wai All persons exercising functions and powers under this RPS and all persons who use, develop or protect resources to which this RPS applies must recognise that LF-WAI-O1, LF-WAI-P1, LF-WAI-P2 and LF-WAI-P3 are fundamental to upholding Te Mana o te Wai, and must be given effect to when making decisions affecting fresh water, including when interpreting and applying the provisions of the LF chapter.	**Consistent** The proposal is consistent with all of the listed objectives and policies, except where LF-WAI-O1 requires restoration of the health of freshwater, which cannot be achieved by this proposal, but would also not be achieved by declining the proposal or by requiring the proposal to completely avoid all adverse effects.
LF-FW-O1A – Visions set for each FMU and rohe In each FMU and rohe in Otago and within the timeframes specified in the freshwater visions in LF-VM-O2 to LF-VM-O6:	**Consistent** The proposal will not impede this vision being achieved.

(1) healthy freshwater and estuarine ecosystems support healthy populations of indigenous species (including non-diadromous galaxiids and Canterbury mudfish) and mahika kai that are safe for consumption, (2) the interconnection of land, freshwater (including springs, groundwater, ephemeral water bodies, wetlands, rivers, and lakes) and coastal water is recognised, (3) fish passage within and between catchments is provided for except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats, (4) the form, function and character of water bodies reflects their natural characteristics and natural behaviours to the extent reasonably practicable, (5) the ongoing relationship of Kāi Tahu with wāhi tūpuna, including access to and use of water bodies, is sustained, (6) the health of the water supports the health of people and their connections with water bodies, (7) sustainable land and water management practices: (a) support food and fibre production and the continued social, economic, and cultural well-being of Otago's people and communities, and (b) improve the resilience of communities to the effects of climate change, and (c) ensure communities are appropriately serviced by community water supplies, and other three waters infrastructure, (8) direct discharges of wastewater to water bodies are phased out to the extent reasonably practicable, and (9) freshwater is managed as part of New Zealand's integrated response to climate change and renewable electricity generation activities are provided for.	
LF–VM–O5 – Dunedin & Coast FMU vision By 2040 in the Dunedin & Coast FMU, and in addition to the matters in LF-FW-O1A:	

(3) healthy riparian margins, wetlands, estuaries and lagoons support the health of downstream coastal ecosystems, and (4) opportunities to restore the natural form and function of water bodies are promoted wherever practicable.	
LF–FW–O8 – Fresh water In Otago's water bodies and their catchments: (5) The significant and outstanding values of Otago's outstanding water bodies are identified and protected.	**Consistent** The margins of the Kaikorai Stream and Estuary bordering the landfill to the north and west are identified as a Regionally Significant Wetland in the RPW and comprise areas of significant indigenous vegetation and significant habitats of indigenous fauna for the purposes of s6(c) of the RMA. Kaikorai Lagoon Swamp is also identified as being highly valued by Kāi Tahu for cultural and spiritual beliefs, values and uses, including mahika kai and waahi taoka.
LF–FW–O9 – Wetlands Otago's wetlands are protected from inappropriate subdivision, use and development and, where degraded, restoration is promoted so that: (1) mahika kai and other mana whenua values are sustained and enhanced now and for future generations, (2) in relation to the extent and diversity of indigenous ecosystem types and habitats: (a) for wetlands outside the coastal marine area, there is no net decrease, and preferably an increase, and (b) for natural inland wetlands, there is no decrease, and preferably an increase, other than as provided by the NPSFM, and (3) there is no reduction and, where degraded, there is an improvement in wetland ecosystem health, hydrological functioning, amenity values, extent or water quality, and (4) their flood attenuation and water storage capacity is maintained or improved.	**Consistent** There will be no decrease in natural inland wetland extent and no reduction in flood attenuation or water storage capacity. The areas of wetland are degraded, and the baseline situation is that values are already reduced. Taking into account the recommended consent conditions, and how residual uncertainty about leachate effects will be monitored and addressed, mahika kai and mana whenua values, ecosystem health, amenity values, and water quality will be maintained and, following closure and capping of the landfill, may begin to improve.

LF–FW–O10 – Natural character The natural character of wetlands, lakes and rivers and their margins is preserved and protected from inappropriate subdivision, use and development.	**Consistent** Adverse effects on natural character of the stream and estuary will be very low. Natural character of the stream and estuary and their margins will be preserved and protected.
LF–FW–P7 – Fresh water Environmental outcomes, attribute states (including target attribute states), environmental flows and levels, and limits ensure that: (1) the health and well-being of water bodies and freshwater ecosystems is maintained or, if degraded, improved, (2) the habitats of indigenous species with life stages dependent on water bodies are protected and sustained, (2A) the habitats of trout and salmon are protected insofar as this is consistent with (2), (2B) fish passage is provided for, except where it is desirable to prevent the passage of some fish species in order to protect desired fish species, their life stages, or their habitats, (3) specified rivers and lakes are suitable for primary contact within the following timeframes: (a) by 2030, 90% of rivers and 98% of lakes, and (b) by 2040, 95% of rivers and 100% of lakes, and (4) resources harvested from water bodies including mahika kai and drinking water are safe for human consumption.	**Partially consistent** The recommended consent conditions will mitigate adverse effects during the period of continued landfilling and during the closure phase. The health and wellbeing of waterbodies and freshwater ecosystems will be maintained in the short term. Effects are expected to reduce gradually throughout the life of the consents, contributing to improvement in in the health and wellbeing of water bodies and freshwater ecosystems. Habitats of indigenous species, and trout and salmon, will be protected. Fish passage will not be affected. Despite any improvement in water quality that may occur during the life of the consents as a result of reduced contaminants loads from the landfill, Kaikorai Stream is unlikely to be suitable for primary contact within the 2030 timeframe. I would note that even if all adverse effects on freshwater from the landfill were completely avoided, the health of the freshwater receiving environment would not be rapidly improved, because there are many other contaminant inputs into the catchment. The evidence of Dr Wilson and Ms Morrison both indicate that there would be a lag time of many years between changes being made and significant improvements being observed.
LF-FW-P10A – Managing wetlands Otago's wetlands are managed: (1) in the coastal environment, in accordance with CE – Coastal Environment, and (2) by applying clause 3.22(1) to (3) of the NPSFM to all natural inland wetlands, and	**Consistent** Clause 3.22 requires that the effects management hierarchy is applied to any loss of extent or values of the wetland, and that consent conditions are imposed that apply the hierarchy and require monitoring of the wetland at a scale commensurate with the loss of extent or values.

(3) to improve the ecosystem health, hydrological functioning and extent of wetlands that have been degraded or lost by promoting: (a) an increase in the extent and condition of habitat for indigenous species, (b) the restoration of hydrological processes, (c) control of pest species and vegetation clearance, and (d) the exclusion of stock, except where stock grazing is used to enhance wetland values, and (e) to sustain and enhance Māori freshwater values.	There will be no loss of wetland extent. Ecology evidence provided by Ms Morrison suggests that it is unlikely that the health of the significant wetland areas will be adversely impacted. As such, no specific ecological monitoring is recommended.
LF–FW–P13 – Preserving natural character and instream values Preserve the natural character and instream values of lakes and rivers and the natural character of their beds and margins by: (1) avoiding the loss of values or extent of a river, unless: (a) 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 (in relation to natural inland wetlands and rivers), (2) not granting resource consent for activities in (1) unless the consent authority is satisfied that: (a) the application demonstrates how each step of the effects management hierarchy (in relation to natural inland wetlands and rivers) will be applied to the loss of values or extent of the river, and (b) any consent is granted subject to conditions that apply the effects management hierarchy (in relation to natural inland wetlands and rivers) in respect of any loss of values or extent of the river, (c) if aquatic offsetting or aquatic compensation is applied, the applicant has complied with principles 1 to 6 in Appendix 6 and 7 of the NPSFM, and has had to regard to the remaining principles in Appendix 6 and 7 of the NPSFM, as appropriate, and (d) if aquatic offsetting or aquatic compensation is applied, any consent granted is subject to conditions that will ensure that the offestting or compensation will be maintained and managed over time to achieve the conservation outcomes,	**Consistent** There will be no loss of river extent. The adverse effects of the proposal on the values of Kaikorai Stream will be avoided where possible, noting that there are limitations to the ability to completely avoid adverse effects given the location of the landfill. There is a functional need for these activities in this location – discharges will continue to occur even if no new waste was placed. There is also a functional need for continued landfilling at this location, because waste disposal is required for the city and there are no practicable alternative locations or methods. Where effects cannot be avoided, they will be minimised. Taking into account the recommended consent conditions and how potential leachate effects will be monitored and addressed, mahika kai and mana whenua values, ecosystem health, amenity values, and water quality will be preserved (to the extent that they are currently supported in this degraded waterbody) and, following closure and capping of the landfill, may begin to improve. Natural character and amenity will be maintained, and gradually enhanced over time with the closure of the landfill and the implementation of the VRMP.

(3) establishing environmental flow and level regimes and water quality standards that support the health and well-being of the water body, (4) to the extent practicable, sustaining the form and function of a water body that reflects its natural behaviours, (5) recognising and implementing the restrictions in Water Conservation Orders, (6) preventing the impounding or control of the level of Lake Wanaka, (7) preventing modification that would permanently reduce the braided character of a river, (8) controlling the use of water and land that would adversely affect the natural character of the water body, and (9) maintaining or enhancing the values of riparian margins to support habitat and biodiversity, reduce contaminant loss to water bodies and support natural flow behaviour.	
LF–FW–P15 – Stormwater discharges Minimise the adverse effects of direct and indirect discharges of stormwater to fresh water by: (2) requiring: (ab) integrated catchment management plans for management of stormwater in urban areas, (b) all stormwater to be discharged into a reticulated system, where one is made available by the operator of the reticulated system, unless alternative treatment and disposal methods will result in the same or improved outcomes for fresh water, (c) implementation of methods to progressively reduce unintentional stormwater inflows to wastewater systems, (e) that any stormwater discharges do not prevent water bodies from meeting any applicable water quality standards set for FMUs and/or rohe, and (f) the use of water sensitive design techniques wherever practicable, and (3) promoting the reticulation of stormwater in urban areas where appropriate, and	**Consistent** This policy is somewhat relevant to the local stormwater management at the landfill. Surface water catchments are mapped and managed, and stormwater is reticulated in the sense that it is channelled into ponds and constructed wetlands prior to piped discharge. Stormwater is generally prevented from entering the leachate system. The discharge of stormwater is not expected to prevent waterbodies meeting applicable water quality standards. Source control is utilised in that the landfill is capped and grassed to minimise sediment becoming entrained in the runoff.

(4) promoting source control as a method for reducing contaminants in discharges and the use of good practice guidelines for managing stormwater.	
LF–LS–P18 – Soil erosion Minimise soil erosion, and the associated risk of sedimentation in water bodies, resulting from land use activities by: (2) maintaining vegetative cover on erosion-prone land, to the extent practicable, (1) implementing management practices to minimise the potential for soil to be discharged to water bodies, including by controlling the timing, duration, scale and location of soil exposure, and (3) promoting activities that enhance soil retention.	**Consistent** Soil erosion is minimised during active capping or infrastructure works by utilisation of erosion and sediment control measures, and is minimised more generally by maintaining grass cover on the landfill cap and vegetative cover elsewhere on the site, where appropriate.
LF–LS–P21 – Land use and fresh water The health and well-being of water bodies and freshwater ecosystems is maintained or, if degraded, improved, to meet environmental outcomes set for Freshwater Management Units and/or rohe by: (1) reducing or otherwise managing the adverse effects of direct and indirect discharges of contaminants to water from the use and development of land, (2) managing land uses that may have adverse effects on the flow of water in surface water bodies or the recharge of groundwater, (3) recognising the drylands nature of some of Otago and the resulting low water availability, and (4) maintaining or, where degraded, enhancing the values of riparian margins.	**Consistent** Sediment discharges are minimised through maintaining grass cover, and treated stormwater in sediment ponds and constructed wetlands prior to discharge. Leachate discharges are minimised through the operation of the leachate interception trench and through other measures to reduce leachate generation. Residual uncertainty in leachate management will be addressed via monitoring and implementation of additional mitigation measures, if justified. These practices will generally ensure that the health and wellbeing of freshwater and ecosystems is maintained. The closure of the landfill will, over time, contribute to a reduction in contaminant inputs to the freshwater environment and potentially an improvement in the health and wellbeing of water and ecosystems, noting that in this catchment there are many other inputs that could influence freshwater health.
ECO–O1 – Indigenous biodiversity Otago's indigenous biodiversity is healthy and thriving and any overall decline in condition, quantity and diversity is halted.	**Consistent** Kaikorai Stream, Lagoon, and Estuary are identified as an Area of Significant Biodiversity Value in the DCC 2GP and in the RPW as an area of
ECO–O3 – Kaitiakitaka and stewardship	

Mana whenua exercise their role as kaitiaki of Otago's indigenous biodiversity, and Otago's communities are recognised as stewards, who are responsible for: (1) te hauora o te koiora (the health of indigenous biodiversity), te hauora o te taoka (the health of species and ecosystems that are taoka), and te hauora o te taiao (the health of the wider environment), while (2) providing for te hauora o te takata (the health of the people).	critical habitat for indigenous fauna dependent on wetlands and these areas are therefore considered to be SNAs per the definition in the NPS-IB. ECO-P5A provides for established activities, such as the Green Island Landfill, that have effects on SNAs. In this case, the landfill will have increased in scale as compared with the scale at 4 August 2023. Based on expert evidence, this is not likely to result in an increased scale, intensity, or character of adverse effect. Nonetheless, the adverse effects of the proposal will generally be avoided or minimised in accordance with the effects management hierarchy such that there is no overall loss in indigenous biodiversity. Further, native riparian plantings as set out in the VRMP will increase indigenous habitat values.
ECO–P1 – Kaitiakitaka Enable Kāi Tahu to exercise their role as kaitiaki of Otago's indigenous biodiversity by: (1) partnering with Kāi Tahu in the management of indigenous biodiversity to the extent desired by mana whenua, (1A) working with Kāi Tahu to identify indigenous species and ecosystems that are taoka, (2) incorporating the use of mātauraka Māori in the management and monitoring of indigenous biodiversity, and (3) facilitating access to and use of indigenous biodiversity by Kāi Tahu, including mahika kai, according to tikaka.	
ECO-P5A – Managing adverse effects of established activities on significant natural areas Outside of the coastal environment, enable the maintenance, operation, and upgrade of established activities (excluding activities managed under ECO-P3 and ECO-P4), where the effects of the activity, including cumulative effects, on a significant natural area: (1) are no greater in intensity, scale, or character over time than at 4 August 2023, and (2) do not result in the loss of extent or degradation of ecological integrity of a significant natural area.	
ECO–P6 – Maintaining indigenous biodiversity Outside the coastal environment and excluding areas protected under ECO-P3, manage Otago's indigenous biodiversity by:	

(1) applying the effects management hierarchy (in relation to indigenous biodiversity) to manage significant adverse effects on indigenous biodiversity), and (2) requiring the maintenance of indigenous biodiversity for all other adverse effects of any activity, and (3) notwithstanding (1) and (2) above, for regionally significant infrastructure and nationally significant infrastructure that is either renewable electricity generation or the National Grid avoid, remedy or mitigate adverse effects to the extent practicable.	
HAZ–NH–O2 – Adaptation Otago's people, communities, and property are prepared for and able to adapt to the effects of natural hazards, including natural hazard risks that are exacerbated by climate change.	**Consistent** Natural hazards of relevance are earthquake, flooding, and sea level rise. Flood and sea level rise hazards are identified by ORC and DCC and are mapped. The main landfill footprint is outside the areas at risk of flooding, but some low-lying areas around the perimeter of the landfill containing the access site road, leachate collection trench, and western sedimentation pond. The predicted increase in flood levels will not significantly impact either the flooding extent in the area of the landfill or the day-to-day operations. Raising the perimeter road, as well as the manholes, chambers, and electrical controls for the leachate pump stations above the predicted flood level will increase the resilience of the landfill and reduce the consequences of flooding and storm surge hazards. The diversion of flood flows by the taller bund does not increase the flood risk to any nearby residential dwellings. Stability assessments indicate that under an ULS seismic event, the landfill is likely to variably deform around the landfill perimeter due to liquefaction, lateral spreading, and slope movement. Remedial work and resilience planning is proposed to reduce the severity of the impact. Adverse effects on persons and the environment can be managed within acceptable tolerance levels.
HAZ-NH-P1A – Identifying areas subject to coastal hazards Identify areas that are potentially affected by coastal hazards (including tsunami), giving priority to the identification of areas at high risk of being affected.	
HAZ–NH–P1 – Identifying areas subject to natural hazards For hazards not identified in accordance with HAZ-NH-P1A, using the best available information, identify areas where natural hazards may adversely affect Otago's people, communities and property, by assessing: (1) the hazard type and characteristics, multiple and cascading hazards, where present, any cumulative effects, any effects of climate change, the likelihood of different hazard scenarios occurring, and any other exacerbating factors.	
HAZ–NH–P2 – Risk assessments Within areas identified under HAZ-NH-P1 as being to natural hazards, assess natural hazard risk as significant, tolerable, or acceptable by determining a range of natural hazard event scenarios and their potential consequences in accordance with the criteria set out within APP6.	
HAZ–NH–P6 – Protecting features and systems that provide hazard mitigation	

Protect the ability of natural or modified features and systems to mitigate the effects of natural hazards and climate change.	
HAZ–NH–P10 – Coastal hazards On any land that is potentially affected by coastal hazards over at least the next 100 years: (1) avoid increasing the risk of social, environmental and economic harm from coastal hazards, ensure no land use change or redevelopment occurs that would increase the risk to people and communities from that coastal hazard, encourage land use change or redevelopment that reduces the risk from that coastal hazard, ensure decision making about the nature, scale and location of activities considers the ability of Otago's people and communities to adapt to, or mitigate the effects of, sea level rise and climate change, and apply HAZ-NH-P5 to HAZ-NH-P9.	
HAZ–CL–O3 – Contaminated land Contaminated land and waste materials are managed to protect human health and do not harm Kāi Tahu, values and the environment in Otago	**Consistent** Landfilling is HAIL category G3. The entire landfill operational area is contaminated. The primary methods for the management of contaminants include progressive capping and ensuring soils are stabilised in an erosion-resistant state as soon as possible, treatment of surface runoff water in sediment retention ponds, and the interception of leachate via the trench. These methods are expected to be generally effective and will ensure that human health is protected and adverse effects on the environment are minimised. The potential limitations of the leachate interception trench will be understood through ongoing monitoring, and if required additional mitigation measures are available to protect the environment. The landfill will be operated in accordance with a landfill management plan, and a closure plan will be prepared prior to closure.
HAZ–CL–P13 – Identifying contaminated land Identify sites of known or potentially contaminated land in Otago.	
HAZ–CL–P14 – Managing contaminated land Manage contaminated or potentially contaminated land so that it does not pose an unacceptable risk to people and the environment, by: (1) assessing and, if required, monitoring contaminant levels and environmental risks, (2) protecting human health in accordance with regulatory requirements, (3) avoiding, as the first priority, and only where avoidance is not reasonably practicable, mitigating or remediating, adverse effects of the contaminants on the environment, (4) requiring closed landfills to be managed in accordance with a closure plan that sets out monitoring requirements and, where necessary, any remedial actions required to address ongoing risks, and (5) prioritising the identification and management of closed landfills and contaminated land at risk from the effects of climate change.	

HAZ–CL–P16 – Waste minimisation responses Apply the principles of the waste management hierarchy (reduce, reuse, recycle, recover, residual waste management) to the management of all waste streams.	**Consistent** The Applicant has committed to develop and improve a comprehensive waste management and diverted material system for Dunedin, which aligns with the applicant's responsibility under the Waste Minimisation Act 2008 *'to promote effective and efficient waste management and minimisation within its district'.* Reuse, recycling, and recovery of resource from waste is the primary function of the RRPP, which will be located at the Green Island Landfill. However, there remains a need for waste disposal. In the relative short-term, this is best achieved through the continued operation of the Green Island Landfill. Longer term, waste disposal will occur at the Smooth Hill Landfill, which will be a modern facility with comparatively fewer adverse effects.
HAZ–CL–P17 – Disposal of waste materials Provide for the development and operation of facilities and services for the storage, recycling, recovery and treatment of waste materials but only for the disposal of waste materials if those materials cannot be recycled, recovered or treated for re-use.	
HAZ–CL–P18 – Waste facilities and services When providing for the development of facilities and services for the storage, recycling, recovery, treatment and disposal of waste materials: (1) avoid adverse effects on the health and safety of people, (2) to the extent reasonably practicable, minimise the potential for adverse effects on the environment to occur, (3) minimise risk associated with natural hazard events, and (4) restrict the establishment of activities that may result in reverse sensitivity effects near waste management facilities and services.	

Regional Plans

Regional Plan: Water for Otago	
Provision	**Assessment**
Objective 5.3.2 To maintain or enhance the spiritual and cultural beliefs, values and uses of significance to Kāi Tahu, identified in Schedule 1D, as these relate to Otago's lakes and rivers.	**Consistent** Kaikorai stream is identified in 1D to the RPW as supporting a range of mana whenua values. Provided any offsite migration of leachate is further investigated and measures are implemented to avoid or minimise effects, if effects are indeed occurring, then these mana whenua values will be maintained. Implementation of the VRMP, which will have input from mana whenua, may contribute to these values being enhanced within the consent term.

Objective 5.3.3 To protect the natural character of Otago's lakes and rivers and their margins from inappropriate subdivision, use or development.	**Consistent** The existing level of natural character at the site is highly modified. The long history of reclamation, drainage and waste disposal has considerably altered biotic and abiotic systems. Natural character of the adjacent Kaikorai Stream and Estuary is higher, particularly in regard to the birdlife it supports and scenic qualities present but are also modified. As the additional development remains within the existing landfill footprint, neither the active bed nor river margins will be directly impacted. The proposed increase in volume and height of the landfill will not further reduce the abiotic or biotic aspects of natural character on site or within the context of adjoining waterbodies. Experiential aspects of natural character may be adversely changed by a very small degree due to the extension in the operating life and height from that currently anticipated. Adverse effects on natural character of the stream and estuary and their margins will be very low. Natural character of the stream and estuary and their margins will be protected.
Objective 5.3.4 To maintain or enhance the amenity values associated with Otago's lakes and rivers and their margins.	**Consistent** The amenity values associated with Otago's lakes and rivers and their margins are the natural and physical qualities and characteristics that contribute to people's appreciation and enjoyment of the water body. The landfill is a fixture in the environment, and the proposed continued landfilling will not substantially alter the amenity value from the existing situation. Following closure of the landfill, amenity values are likely to be enhanced, through increased public access to the stream and wetlands, as well as by the increased pleasantness of the margins due to reduced odour from the landfill.
Policy 5.3.5 To maintain or enhance public access to and along the margins of Otago's lakes and rivers.	**Consistent** The existing level of access, i.e. restricted access, will continue for the period of continued landfilling. Public recreational access to areas of the stream and wetland margins may be increased following landfill closure.

	This will be determined in consultation with mana whenua and the local community but will also take into account the operation of the RRPP.
Policy 5.4.1 To identify the following natural and human use values supported by Otago's lakes and rivers, as expressed in Schedule 1: (a) Outstanding natural features and landscapes; (b) Areas with a high degree of naturalness; (c) Areas of significant indigenous vegetation, significant habitats of indigenous fauna, and significant habitats of trout and salmon; (d) Ecosystem values; (e) Water supply values; (f) Registered historic places; and (g) Spiritual and cultural beliefs, values and uses of significance to Kāi Tahu.	**Consistent** Kaikorai Stream and Kaikorai Lagoon Swamp hold important mana whenua values as expressed in Schedule 1D. The margins of the Kaikorai Stream and Estuary bordering the landfill to the north and west are identified as a Regionally Significant Wetland in the RPW and comprise areas of significant indigenous vegetation and significant habitats of indigenous fauna.
Policy 5.4.2 In the management of any activity involving surface water, groundwater or the bed or margin of any lake or river, to give priority to avoiding, in preference to remedying or mitigating: (1) Adverse effects on: a) Natural values identified in Schedule 1A; b) Water supply values identified in Schedule 1B; c) Registered historic places identified in Schedule 1C, or archaeological sites in, on, under or over the bed or margin of a lake or river; d) Spiritual and cultural beliefs, values and uses of significance to Kāi Tahu identified in Schedule 1D; e) The natural character of any lake or river, or its margins; f) Amenity values supported by any water body; and (2) Causing or exacerbating flooding, erosion, land instability, sedimentation or property damage.	**Consistent** With the existing landfill infrastructure, adverse effects on values identified in Schedule 1D are unlikely to be able to be completely avoided, but the mitigation measures set out in recommended consent conditions will ensure that adverse effects are substantially minimised. Further investigation into the offsite migration of leachate, and implementation of measures to avoid or minimise effects, if effects are indeed occurring, then these mana whenua values will be maintained, will offer further protection. Natural character and amenity effects will be minimal and measures to further avoid or minimise effects are not necessary. The implementation of the VRMP may contribute to the enhancement of natural character and amenity. The proposal will not cause or exacerbate flooding, land stability, or property damage, and measures to avoid or minimise sediment effects will be implemented.
Policy 5.4.2A	**Consistent**

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.	There will be no loss of river extent. The adverse effects associated with the discharge of stormwater and the uncertainty associated with offsite discharge of leachate are not likely to result in the loss of any river values.
Policy 5.4.4 To recognise Kāi Tahu's interests in Otago's lakes and rivers by promoting opportunities for their involvement in resource consent processing.	**Consistent** The Applicant undertook engagement with Kāi Tahu and has adopted the conditions and recommendations put forth by Te Rūnanga o Ōtākou, which include ongoing active participation by mana whenua via consent conditions and the submissions process.
Objective 6.3.1 To retain flows in rivers sufficient to maintain their life-supporting capacity for aquatic ecosystems, and their natural character.	**Consistent** The modelled reduction in stream flows (approximately 0.5 L/s) will not compromise the life-supporting capacity or natural character of Kaikorai Stream. There are no limits set for the unmapped aquifer underlying the site; however, the abstraction of groundwater and leachate is unlikely to significantly affect long-term groundwater levels.
Objective 6.3.2 To maintain long term groundwater levels and water storage in Otago's aquifers.	
Policy 6.4.0 To recognise the hydrological characteristics of Otago's water resources, including behaviour and trends in: (a) The levels and flows of surface water bodies; and (b) The levels and volumes of groundwater; and (c) Any interrelationships between adjoining bodies of water, when managing the taking of water.	**Consistent** Groundwater has a degree of hydrological connection to Kaikorai Stream. Limited data is available for the unmapped aquifer underlying the site.
Policy 6.4.0A To ensure that the quantity of water granted to take is no more than that required for the purpose of use taking into account: (a) How local climate, soil, crop or pasture type and water availability affect the quantity of water required; and (b) The efficiency of the proposed water transport, storage and application system.	**Consistent** The quantity of water taken is no more than that required to maintain a hydraulic gradient on both sides of the leachate interception trench, and to pump leachate from the trench. The listed elements are of limited relevance to this specific scenario.
Policy 6.4.1A A groundwater take is allocated as:	**Consistent** Depending on the location of the leachate interception trench or groundwater well in relation to the Kaikorai Stream, water is allocated as

(a) Surface water, subject to a minimum flow, if the take is from any aquifer in Schedule 2C; or (b) Surface water, subject to a minimum flow, if the take is within 100 metres of any connected perennial surface water body; or (c) Groundwater and part surface water if the take is 100 metres or more from any connected perennial surface water body, and depletes that water body most affected by at least 5 litres per second as determined by Schedule 5A; or (d) Groundwater if (a), (b) and (c) do not apply.	surface water, groundwater and part surface water, and groundwater in accordance with parts b-d of this policy, respectively.
Policy 6.4.10A5 In managing the taking of groundwater, avoid in any aquifer: (a) Contamination of groundwater or surface water; and (b) Permanent aquifer compaction.	**Consistent** The taking of groundwater will not cause contamination of ground or surface water or permanent aquifer allocation, although it is noted that groundwater beneath the site is contaminated by leachate.
Policy 6.4.16 In granting resource consents to take water, or in any review of the conditions of a resource consent to take water, to require the volume and rate of take to be measured in a manner satisfactory to the Council unless it is impractical or unnecessary to do so.	**Consistent** Recommended consent conditions direct that water abstraction is measured and reported on in accordance with the Resource Management (Measuring and Reporting of Water Takes) Regulations 2010 and Amendment Regulations 2020.
Objective 7.A.1 To maintain water quality in Otago lakes, rivers, wetlands, and groundwater, but enhance water quality where it is degraded.	**Consistent** The activities will be managed such that water quality will be maintained, noting that maintenance of a degraded state is not a high bar. Throughout the life of the consent, improvements in leachate containment and reduced leachate and sediment generation rates will contribute to a degree of improvement in the receiving environment.
Objective 7.A.2 To enable the discharge of water or contaminants to water or land, in a way that maintains water quality and supports natural and human use values, including Kāi Tahu values.	
Objective 7.A.3 To have individuals and communities manage their discharges to reduce adverse effects, including cumulative effects, on water quality.	
Policy 7.B.1 Manage the quality of water in Otago lakes, rivers, wetlands and groundwater by:	**Partially consistent** Parts (a) and (b) are not the responsibility of the Applicant. Water quality within the stream and wetland is degraded. Historic sampling indicates some exceedances of Schedule 15.2 numerical limits, both up and

(a) Describing, in Table 15.1 of Schedule 15, characteristics indicative of Good Quality Water; and (b) Setting, in Table 15.2 of Schedule 15, receiving water numerical limits and targets for achieving Good Quality Water; and (c) Maintaining, from the dates specified in Schedule 15, Good Quality Water; and (d) Enhancing water quality where it does not meet Schedule 15 limits, to meet those limits by the date specified in the Schedule; and (e) Recognising the differences in the effects and management of point and non-point source discharges; and (f) Recognising discharge effects on groundwater; and (g) Promoting the discharge of contaminants to land in preference to water.	downstream of the landfill. Except for *E. Coli* the dates specified have long since passed and thus water quality does not meet the limits by the specified dates. This is largely due to other contaminant inputs to the catchment. The contribution of contaminants from the landfill is expected to reduce over the consent term, and this will contribute to improvement in water quality. The Applicant has recognised the difference in effects, monitoring, and management of point source and diffuse discharges, and this is reflected in recommended consent conditions. Leachate infiltrates groundwater which is unavoidable given the siting of the landfill.
Policy 7.B.2 Avoid objectionable discharges of water or contaminants to maintain the natural and human use values, including Kāi Tahu values, of Otago lakes, rivers, wetlands, groundwater and open drains and water races that join them.	**Consistent** The discharges are not objectionable; however, the potential loss of leachate to the stream or estuary could be considered objectionable to mana whenua. Any effects would be avoided or further minimised in the relative short term. Natural and human use values will generally be maintained, noting that these values are already degraded so maintaining them is not a high standard. Improvements are likely over the consent term.
Policy 7.B.3 Allow discharges of water or contaminants to Otago lakes, rivers, wetlands and groundwater that have minor effects or that are short-term discharges with short-term adverse effects.	**Consistent** The discharges are not short term but will generally have minor effects. Where recommended consent conditions require ongoing monitoring, and monitoring finds that effects are greater than expected, additional measures to avoid or minimise effects would be taken. This is particularly relevant for the potential diffuse discharge of leachate.
Policy 7.B.4 When considering any discharge of water or contaminants to land, have regard to: (a) The ability of the land to assimilate the water or contaminants; and (b) Any potential soil contamination; and	**Consistent** Regard has been had to each of these factors.

(c) Any potential land instability; and (d) Any potential adverse effects on water quality; and (e) Any potential adverse effects on use of any proximate coastal marine area for contact recreation and seafood gathering.	
Policy 7.B.7 Encourage land management practices that reduce the adverse effects of water or contaminants discharged into water.	**Consistent** Capping and grassing of completed landfill sections, separation of clean, dirty, and leachate waters, sediment retention ponds and constructed wetlands are all land management practices that reduce the adverse effects of discharges to water.
Policy 7.B.8 Encourage adaptive management and innovation that reduces the level of contaminants in discharges.	**Consistent** Adaptive management principles are relied upon in the recommended consent conditions. This is to enable additional information to be gathered to reduce uncertainty in effects associated both with the potential leachate discharges and to assess the contribution of the stormwater discharges to cumulative effects within the catchment. If effects are identified, then measures to avoid or further minimise effects will be implemented. Continued monitoring will measure the effectiveness of the actions, and so on.
Policy 7.C.1 When considering applications for resource consents to discharge contaminants to water, to have regard to opportunities to enhance the existing water quality of the receiving water body at any location for which the existing water quality can be considered degraded in terms of its capacity to support its natural and human use values.	**Consistent** The stream and mid and upper estuary are degraded ecosystems. Consent conditions will ensure that the contribution of the landfill to the receiving environment is better understood and is further reduced if possible and necessary. Contaminant contributions will reduce over the life of the consent, contributing to improvement in water quality.
Policy 7.C.2 When considering applications for resource consents to discharge contaminants to water, or onto or into land in circumstances which may result in any contaminant entering water, to have regard to: (a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects;	**Consistent** Point source discharge of stormwater, which may contain some sediment and bound contaminants, and potentially diffuse discharge of leachate. The receiving environment is sensitive in the sense that it has significant values, but sensitivity is reduced by the existing state of degradation. There are no other practicable receiving environments, and continued use of this existing landfill for a relatively short period presents the smallest financial burden the community, considering the available alternatives.

(b) The financial implications, and the effects on the environment of the proposed method of discharge when compared with alternative means; and (c) The current state of technical knowledge and the likelihood that the proposed method of discharge can be successfully applied.	
Policy 7.C.3 When considering any resource consent to discharge a contaminant to water, to have regard to any relevant standards and guidelines in imposing conditions on the discharge consent.	**Consistent** Recommended monitoring conditions are based on relevant guidelines, where applicable.
Policy 7.C.4 The duration of any new resource consent for an existing discharge of contaminants will take account of the anticipated adverse effects of the discharge on any natural and human use value supported by an affected water body, and: (a) Will be up to 35 years where the discharge will meet the water quality standard required to support that value for the duration of the resource consent; (b) Will be no more than 15 years where the discharge does not meet the water quality standard required to support that value but will progressively meet that standard within the duration of the resource consent; (c) Will be no more than 5 years where the discharge does not meet the water quality standard required to support that value; and (d) No resource consent, subsequent to one issued under (c), will be issued if the discharge still does not meet the water quality standard required to support that value.	**Consistent** The Applicant has requested a 35 year term for all discharge permits. This is appropriate because water quality will be maintained initially, and gradually improved throughout the life of the consent. Other values supported by the stream, wetland, and estuary will be also generally be maintained and potentially improved over time. Mana whenua values would be affected by any diffuse discharge of leachate, but recommended consent conditions require investigation of leachate migration and, if found to be occurring, require implementation of measures to avoid or minimise effects. Therefore, any measurable leachate leakage and its effects on cultural values would be addressed adequately in the relative short-term.
Policy 7.C.6 Reduce the adverse environmental effects from existing stormwater reticulation systems by: (a) Requiring the implementation of appropriate measures to progressively reduce sewage entering the stormwater reticulation system; and	**Consistent** In accordance with part (b) of this policy, sediment retention ponds will retain sediment and contaminants bound to sediment, and will provide a degree of attenuation of stormwater flows prior to their discharge into the receiving environment.

(b) Requiring consideration of appropriate measures to progressively improve the quality of water discharged from existing stormwater reticulation systems, including: i. Measures to prevent contamination of the receiving environment by industrial or trade waste; and ii. The use of techniques to trap debris, sediments and nutrients present in runoff; and iii. Measures to reduce and/or attenuate stormwater being discharged from rain events; and iv. Measures for discharging to land, in preference to discharging directly to water, to address adverse effects on Kāi Tahu cultural and spiritual beliefs, values and uses.	
Policy 8.5.5 In considering the construction, reconstruction or modification of defences against water, to have regard to: (a) The effectiveness of the proposed work; (b) The need for the defence; and (c) Any effect on existing defences.	**Consistent** The raising of the perimeter bund (and associated leachate trench infrastructure) is a sensible precaution to reduce future impacts of flooding and inundation. No other defences against water, nor any other structure, will be affected.
Policy 8.7.1 To promote the creation, retention and enhancement of appropriate riparian vegetation where it will: (a) Maintain or enhance water quality, through the interception of nonpoint source contamination from adjacent land; (b) Enhance the aquatic ecosystems within a water body, and the habitat for flora and fauna on the margins; (c) Maintain or enhance the natural character of lakes and rivers and their margins; (d) Maintain or enhance amenity values; (e) Avoid, remedy or mitigate the adverse effects arising from flooding or erosion;	**Consistent** Riparian plantings will occur in accordance with the VRMP, the purpose of which is to manage the health and long-term replacement of the existing screening vegetation on the site, and provision of riparian planting, with the objective of ensuring the landfill and waste minimisation and transfer facilities continue to be integrated into the surrounding landscape, adverse visual effects are minimised, existing views of Pukemakamaka/Saddle Hill are maintained, and the enhancement of ecological and cultural values. The proposed planting will not cause flooding effects, nor will it restrict access, affect heritage values, impose constraints on network utilities, or adversely impact desirable species.

(f) Be unlikely to have a significant adverse effect on desirable species already present, or adjacent to, and downstream from, that riparian vegetation; (g) Be unlikely to restrict existing public access along the beds and margins of Otago's lakes and rivers; (h) Be unlikely to have a significant adverse effect on the heritage value of any site, building, place or area; (i) Be unlikely to impose any significant operational constraints on existing network utilities; or (j) Enhance mahika kai values.	
Objective 9.3.1 To sustain the recognised uses of Otago's groundwater.	**Consistent** There are no recognised uses of groundwater at this location.
Objective 9.3.3 To maintain the quality of Otago's groundwater.	**Consistent** Groundwater quality will be maintained, noting that this only means that the existing state of contamination will remain the same. The leachate collection trench is generally expected to be effective at preventing offsite migration of leachate, with the potential exceptions explained in the s42A report and expert evidence, so any connected groundwater beyond the site should not be impacted. There are no Schedule 3 uses of this groundwater. Codes of practice, such as the WasteMINZ guidelines, are observed and utilised where possible, noting the constraints imposed by the location of the landfill within an estuary.
Policy 9.4.1 In managing any activity involving the taking of groundwater or the discharge of contaminants, to ensure that the suitability of aquifers to support the recognised uses of groundwater identified in Schedule 3 is maintained.	
Policy 9.4.21 To support appropriate codes of practice and management guidelines for land use activities which may result in contaminants entering groundwater.	
Objective 10.3.1 Otago's wetlands and their individual and collective values and uses will be maintained or enhanced for present and future generations.	**Consistent** The significant values of the Kaikorai Lagoon Swamp, which would include areas along the margins of Kaikorai Stream identified as natural inland wetlands, are set in the RPW. These are: • A1 Habitat for nationally or internationally rare or threatened species or communities;
Objective 10.3.2 Otago's Regionally Significant Wetlands and their values and uses are recognised and sustained.	
Policy 10.4.1	

Otago's regionally significant wetland values are: A1 Habitat for nationally or internationally rare or threatened species or communities; A2 Critical habitat for the life cycles of indigenous fauna which are dependent on wetlands; A3 High diversity of wetland habitat types; A4 High degree of wetland naturalness; A5 Wetland scarce in Otago in terms of its ecological or physical character; A6 Wetland which is highly valued by Kāi Tahu for cultural and spiritual beliefs, values and uses, including waahi taoka and mahika kai; A7 High diversity of indigenous wetland flora and fauna; A8 Regionally significant wetland habitat for waterfowl; and A9 Significant hydrological values including maintaining water quality or low flows, or reducing flood flows.	• A2 Critical habitat for the life cycles of indigenous fauna which are dependent on wetlands; • A4 High degree of wetland naturalness; • A5 Wetland scarce in Otago in terms of its ecological or physical character; • A6 Wetland which is highly valued by Kāi Tahu for cultural and spiritual beliefs, values and uses, including waahi taoka and mahika kai. The areas of wetland are degraded, and the baseline situation is that values are already reduced. The significant values of the wetlands will generally be sustained. Adverse effects will be avoided or minimised, noting that there will be no direct effects on the significant wetland. Te Rūnanga o Ōtākou indicated that any discharge of leachate into the stream or estuary would have more than minor adverse effects on mauri i.e. a reduction in cultural values. Consent conditions require improvements in leachate management, and combined with the closure and final capping of the landfill will be a significant step towards reducing effects from the landfill and contributing to the gradual restoration of the wetlands, noting that there are many other contributors to this degradation. Taking into account the recommended consent conditions, and how residual uncertainty about leachate effects will be monitored and addressed, mahika kai and mana whenua values, ecosystem health, amenity values, and water quality will be sustained and, following closure and capping of the landfill, may begin to improve. The VRMP will contribute to the enhancement of some wetland values. Financial contributions not required. Policy 10.4.8 has not been updated to reflect the full wording of the NPS-F clause 3.22. Regardless, the effects management hierarchy has been applied, with adverse effects avoided where possible, and otherwise
Policy 10.4.1A A Regionally Significant Wetland is any wetland that is: (a) Listed in Schedule 9 and mapped in maps F1-F63; or (b) Within a wetland management area listed in Schedule 9 and mapped in maps F1-F63; or (c) Higher than 800 metres above sea level.	
Policy 10.4.2 Avoid the adverse effects of an activity on a Regionally Significant Wetland or a regionally significant wetland value, but allow remediation or mitigation of an adverse effect only when the activity: (a) Is lawfully established; or (b) Is nationally or regionally significant infrastructure, and has specific locational constraints; or (c) Has the purpose of maintaining or enhancing a Regionally Significant Wetland or a regionally significant wetland value.	
Policy 10.4.2A Where the avoidance, remediation or mitigation of adverse effects on any Regionally Significant Wetland or any regionally significant wetland value	

is not adequate, financial contributions, determined in accordance with Chapter 17, may be required.	minimised. The landfill does provide significant regional benefits, and there are no practicable alternative locations in the region.
Policy 10.4.8 The loss of natural inland wetlands is avoided, their values are protected, and their restoration is promoted, except where: (a) The loss of extent or values arises from any of the following: i. The customary harvest of food or resources undertaken in accordance with tikanga Maori ii. Restoration activities iii. Scientific research iv. The sustainable harvest of sphagnum moss v. The construction or maintenance of wetland utility structures (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 vi. The maintenance or operation of specified infrastructure, or other infrastructure (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020 vii. Natural hazard works (as defined in the Resource Management (National Environmental Standards for Freshwater) Regulations 2020; or (b) The regional council is satisfied that: i. The activity is necessary for the construction or upgrade of specified infrastructure; and ii. The specified infrastructure will provide significant national or regional benefits; and iii. There is a functional need for the specified infrastructure in that location; and iv. The effects of the activity are managed through applying the effects management hierarchy.	
Objective 10A.1.1	**Consistent**

Facilitate an efficient and effective transition from the operative freshwater planning framework toward a new integrated regional planning framework, by managing: (a) The take and use of freshwater; and (b) The replacement of Deemed Permits, and (c) The replacement of water permits for takes and uses of freshwater where those water permits expire prior to 31 December 2025.	Policy 10A.2.1 deals with surface water takes and groundwater takes partly allocated as surface water. Parts (a) and (d) of policy 10A.2.1 are met. Parts (b) and (c) aren't applicable. The Applicant has applied for a term of six years, which is consistent with policy 10A.2.3.
Policy 10A.2.1 Replacement consents Irrespective of any other policies in this Plan, avoid granting resource consents that replace Deemed Permits, or water permits for takes and uses of surface water (including groundwater considered as surface water under Policy 6.4.1A (a), (b) and (c) of this Plan) where those water permits expire prior to 31 December 2025, except where: (a) The Deemed Permit or water permit that is being replaced is a valid permit; and (b) There is no increase in the area under irrigation, except where any additional area to be irrigated is only for orchard or viticulture land uses and all mainline irrigation pipes servicing that additional area were installed before 18 March 2020; and (c) Any existing residual flow, minimum flow or take cessation condition is applied to the new permit; and (d) For takes other than community water supplies there is no increase in: (i) The historical instantaneous rate of abstraction; and (ii) Any historical volume of water taken.	
Policy 10A.2.3 Duration Irrespective of any other policies in this Plan concerning consent duration, avoid granting resource consents that replace Deemed Permits, or resource consents that replace water permits to take and use surface water (including groundwater considered as surface water under Policy 6.4.1A (a), (b) and (c) of this Plan) where those water permits expire prior to 31 December 2025, for a duration of more than six years, except	

(a) where the take and use of water replaces a Deemed Permit associated with hydro-electricity generation infrastructure listed in Schedule 10A.5.1 and the applicant takes practicable steps to remedy or mitigate any adverse effects on the environment arising from the activity.	
Regional Plan: Waste for Otago (RPWaste)	
Provision	**Assessment**
Objective 3.3.1 To ensure that the quality of Otago's natural and physical resources is not degraded by wastes.	**Consistent** This objective sits within the mana whenua chapter of the waste plan and is specifically concerned with waste and the protection of natural and physical resources from degradation by wastes, with a view to minimising the amount of waste that is landfilled. Siting a landfill in an estuary would be inconsistent with all modern guidelines. Landfilling at this location has contributed to the historic and ongoing degradation of natural and physical resources. The short-term continuation of waste disposal at this location is not expected to contribute to a worsening of the receiving environment in the short term. In the long term, improvements should start to be seen, as contaminant loads decrease.
Objective 3.3.2 To protect the mauri of Otago's natural and physical resources and restore the mauri of waste-affected resources. Objective 3.3.3 To ensure waste management practices are compatible with Kāi Tahu values.	**Inconsistent in the short term but consistent in the long term** Te Rūnanga o Ōtākou indicated that any discharge of leachate into the stream or estuary would have more than minor adverse effects on mauri i.e. a reduction in cultural values. Recommended consent conditions require investigation of leachate migration and, if found to be occurring, require implementation of measures to avoid or minimise effects. Therefore, any measurable leachate leakage and its effects on cultural values would be addressed adequately in the relative short-term.
Objective 3.3.4 To adopt a holistic approach to waste management which integrates Kāi Tahu cultural concepts.	**Consistent** Kāi Tahu cultural concepts are incorporated into the application, through adoption of the CIA recommendations, the submission process, and engagement built into consent conditions.

Objective 4.3.1 To minimise the amount of waste generated at source in Otago.	**Consistent** This chapter is concerned with waste minimisation. The continued use of the Green Island landfill forms part of the DCC waste minimisation strategy, which also includes the development of the RRPP and the rollout of new and altered kerbside collection services, aimed at removing putrescible wastes from the landfill stream, and reducing the amount of waste that is ultimately landfilled. While not of direct relevance to this proposal for continued landfilling followed by closure, the waste minimisation strategy provides some context for this application.
Objective 4.3.2 To maximise the opportunities for the reuse, recycling and recovery of materials from the waste stream.	
Policy 4.4.1 To recognise and provide for the relationship Kāi Tahu have with natural and physical resources by: (a) Acknowledging that future generations will inherit the results of good and bad waste management practices; (b) Providing for the management of Otago's waste stream in a manner that takes into account Kāi Tahu cultural values; and (c) Maintaining consultation with Kāi Tahu on issues relating to waste minimisation.	**Consistent** Kāi Tahu relationships with natural and physical resources are recognised and provided for through adoption of the CIA recommendations, the submission process, and engagement built into consent conditions.
Objective 5.3.1 To avoid, remedy or mitigate any adverse effects of contaminated sites.	**Consistent** Adverse effects of the landfill will be avoided, mitigated, and remedied to the extent practicable. The footprint of the landfill will not increase – avoiding new effects; leachate interception infrastructure will capture and remove leachate, and the landfill will be closed and capped in the relative short-term – mitigating effects, noting the potential limitations of the trench; and any breakdowns in infrastructure or processes will be identified and rectified – remediating effects. Given the location and unlined nature of the landfill, complete avoidance of effects is not possible, nor is complete remediation of effects.
Objective 5.3.2 To avoid further site contamination.	**Consistent** While additional waste will be received and landfilled at the site, the footprint of the landfill will not increase. There will be no new areas of contamination.

Policy 5.4.1 To recognise and provide for the relationship Kāi Tahu have with Otago's natural and physical resources through: (a) Carrying out investigations of, and works to remedy and mitigate, contaminated sites in a manner which takes into account Kāi Tahu cultural values; (b) Protecting waahi tapu and waahi taoka, and access to them by Kāi Tahu, from the effects of contamination; (c) Acknowledging that future generations will inherit the results of work carried out to remedy or mitigate contaminated sites; and (d) Maintaining consultation with Kāi Tahu on issues relating to site contamination.	**Consistent** Kāi Tahu relationships with natural and physical resources are recognised and provided for through adoption of the CIA recommendations, the submission process, and engagement built into consent conditions.
Policy 5.4.3 To contain contaminated sites and rehabilitate them to the extent that is practicable having regard to the use to which the land is to be put.	**Consistent** There will be no increase to the landfill footprint, and contaminants will be contained to the extent possible given the unlined nature of the landfill. In approximately 2030 the landfill will be closed and rehabilitated, with a view to enabling future recreational use, to be determined in consultation with the community and mana whenua. Areas of the landfill site will continue to be used for the RRPP in the long-term.
Objective 6.3.1 To avoid, remedy and mitigate the risk to the environment and human health from hazardous substances and hazardous wastes.	**Consistent** The resource recovery area has a drop off facility for household hazardous wastes such as chemicals, batteries, and gas bottles. These are not landfilled, and instead are removed for offsite disposal at suitable facilities. Small amounts of hazardous wastes are expected within the general waste stream. In addition, special and hazardous wastes (pre-approved) are received and landfilled, subject to meeting specific waste acceptance criteria. Special handling procedures are applied to specific special or hazardous wastes. Some of these wastes require their own dedicated disposal pit. Beyond special acceptance and handling practices, which align with MfE Module 2 guidelines and current best practice and industry standards, the adverse effects of hazardous substances and hazardous
Objective 6.3.2 To avoid, remedy and mitigate the harmful effects of hazardous substances and hazardous wastes on traditional water, land and mahika kai values of importance to Kāi Tahu.	
Policy 6.4.1 To promote the safe transportation, and the use, treatment, storage and disposal of hazardous substances and hazardous wastes in such a manner that avoids adverse environmental effects.	
Policy 6.4.12 To recognise and provide for the relationship Kāi Tahu have with Otago's natural and physical resources through: (a) Providing for the management and disposal of Otago's hazardous substances and hazardous wastes in a manner which takes into account Kāi Tahu cultural values; and	

(b) Supporting hazardous waste disposal methods which avoid, remedy or mitigate adverse effects on the environment and the mauri of its natural and physical resources; and (c) Protecting waahi tapu and waahi taoka from hazardous waste management practices; and (d) Ensuring that Kāi Tahu access to waahi tapu and waahi taoka is not compromised by waste management practices; and (e) Acknowledging that future generations will inherit the results of good and bad waste management practices; and (f) Maintaining consultation with Kāi Tahu on issues relating to hazardous substances and hazardous waste management.	wastes accepted at the landfill are managed in the same manner as other waste.
Objective 7.3.1 To avoid, remedy or mitigate the adverse environmental effects arising from the discharge of contaminants at and from landfills.	**Consistent** Adverse effects of the landfill will be avoided, mitigated, and remedied to the extent practicable. The footprint of the landfill will not increase – avoiding new effects; leachate interception infrastructure will capture and remove leachate, and the landfill will be closed and capped in the relative short-term – mitigating effects, noting the potential limitations of the trench; and any breakdowns in infrastructure or processes will be identified and rectified – remediating effects. Given the location and unlined nature of the landfill, complete avoidance of effects is not possible, nor is complete remediation of effects.
Objective 7.3.2 To eliminate illegal, uncontrolled, unmanaged, poorly managed and poorly located landfill sites.	**Consistent** *Policy explanation: The illegal dumping of waste is an offence against the Resource Management Act. As with uncontrolled and unmanaged landfills, illegal dumping can give rise to adverse effects, such as discharges and visual unsightliness. Sites that are poorly located or poorly managed can also give rise to adverse effects. Where action cannot be taken to improve the operation of such landfills in the future, it is appropriate to seek their closure and the construction of more environmentally acceptable facilities.*

	This landfill is legal, controlled, and well managed. It is poorly located. There is no possibility of moving this landfill. Landfilling will continue in the short-term and then landfill will be closed.
Policy 7.4.3 To ensure that landfills and discharges from silage production and composting operations are sited at locations and managed in a manner whereby adverse effects on the environment are avoided, remedied, or mitigated.	**Consistent** The siting of this landfill is not a consideration of this application because this is a legacy landfill. The adverse effects are avoided, remedied, or mitigated to the extent practicable. Complete avoidance is not possible due to the location.
Policy 7.4.4 To monitor discharges to land, water, and air from new, operating and closed landfills, and from silage production and composting.	**Consistent** Recommended consent conditions set out monitoring programmes for discharges of contaminants to land, water, and air.
Policy 7.4.5 To identify and quantify waste inputs into operating, and new landfills.	**Consistent** Waste acceptance criteria apply, and anticipated volumes of waste have been calculated.
Policy 7.4.6 To require that all new, operating, and closed landfills are managed in compliance with approved management and post closure procedures.	**Consistent** A management plan for the continued operation of the landfill is in place and is regularly reviewed. A closure plan will be developed prior to closure.
Policy 7.4.7 To upgrade where possible or close those existing landfill sites causing adverse effects.	**Consistent** Upgrades to the leachate collection trench, landfill gas collection infrastructure, and stormwater infrastructure are all proposed as part of this application. Some of these are significant undertakings and will all be completed prior to the closure of the landfill. The landfill will be closed in approximately 2030.
Policy 7.4.11 To avoid significant adverse effects of discharges and otherwise minimise the adverse effects of discharges from new and operating landfills on the environment outside a landfill footprint (as indicated in Figure 5-1 of the Waste Management Institute New Zealand's Technical Guidelines for Disposal to Land August 2018), by requiring that: (a) the siting, design, construction, operation and management of new landfills, and operating and closed landfills to the extent that the	**Consistent** Recommended consent conditions will ensure that the landfill is designed and operated in accordance with the WasteMINZ guidelines, to the extent that is it possible to do so. Management plans will be in place. Leachate, stormwater, and general contaminant management methods are in place, and will be improved where necessary.

Guidelines are applicable, is in accordance with the Waste Management Institute New Zealand's Technical Guidelines for Disposal to Land (August 2018); and (b) a site-specific management plan is prepared and implemented in accordance with the Waste Management Institute New Zealand's Technical Guidelines for Disposal to Land (August 2018) that includes (but is not limited to): (i) methods for leachate management, collection, treatment and disposal; (ii) methods for stormwater capture and control from both off-site and on-site sources; and (iii) methods to minimise contamination of the receiving environment; and (iv) controls to manage hazardous waste and avoid any discharge of hazardous wastes or the leaching of contaminants from hazardous wastes.	
Policy 7.4.11A The discharges at and from new and operating landfills within 13km of airports defined as Nationally Significant Infrastructure are to be assessed with regard to: (a) siting; (b) classes of landfills; (c) preparation and implementation of management plans; in order to prevent the landfill increasing the existing risk of bird strike.	**Consistent** The landfill is approximately 16 km from the Dunedin International Airport. Bird strike risk is managed via implementation of a SBBG management plan, required by a condition of the Smooth Hill Landfill consents.
Regional Plan: Air for Otago (RPA)	
Provision	**Assessment**
Objective 6.1.2 To avoid adverse localised effects of contaminant discharges into air on: (a) Human health; (b) Cultural, heritage and amenity values; (c) Ecosystems and the plants and animals within them; and (d) The life-supporting capacity of air.	**Partially consistent, and increasingly consistent over time** Adverse effects from the discharges of LFG, combustion products, and dust will be avoided where possible and otherwise mitigated such that they have less than minor adverse effects on the elements listed in parts a-d of this policy, in a local context. The discharge of odour, even after implementation of the recommended consent conditions, may have localised effects on amenity values, and potentially mana whenua values, but will not adversely affect human health, ecosystems, or the life-supporting capacity of air. Odour effects will decrease following closure and final capping of the landfill.

	It is not clear to me how this objective, when considered in isolation, would enable any discharge to air activity in Otago to have any adverse effects. The note under this objective in the RPA states that *"this objective is implemented by all the policies in this plan."* However, policies written to give effect to this objective do not require that all adverse effects be avoided. Complete avoidance of adverse effects is a very high bar, and as set out in the evidence of Ms Freeman, even with best practice measures it is not possible to eliminate odours at any landfill. It is unlikely that any landfill located adjacent to a residential area would be able to completely avoid adverse effects on amenity values.
Objective 6.1.3 To allow for the sustainable use of Otago's air resource.	**Consistent** On balance, the air quality effects of the proposal are considered to be acceptable and will decrease over time following closure and final capping of the landfill. On this basis I consider that the air resource is used sustainably.
Policy 7.1.1 To recognise and provide for the relationship Kāi Tahu have with the air resource through procedures that enable Kāi Tahu to participate in management of the air resource.	**Consistent** The Applicant undertook engagement with Kāi Tahu and has adopted the conditions and recommendations put forth by Te Rūnanga o Ōtākou, noting that none of these recommendations were specific to management or protection of air quality.
Policy 8.1.1 To have regard to the Otago Goal Levels identified in Schedule 1 and comply with the Resource Management (National Environmental Standards Relating to Certain Air Pollutants, Dioxins and Other Toxics) Regulations 2004 in managing the region's ambient air resource.	**Consistent** The NES-AQ sets limits for CO, NO_2, PM_{10}, and SO2. The proposal is not likely to result in any of these limits being breached. Regulation 17 is not breached, and Council is not required to decline this application. LFG will be controlled in a manner that complies with Regulation 26, and LFG will be flared in accordance with Regulation 27. The application did not have regard to the Otago Goal Levels, which are generally set lower than the corresponding limits in the NES-AQ. Nonetheless, a comparison of the modelled data to the goal limits suggests that these are not likely to be breached.

Policy 8.2.3 In the consideration of any application to discharge contaminants into air, Council will have: (a) Particular regard to avoiding adverse effects including cumulative effects on: i. Values of significance to Kāi Tahu; ii. The health and functioning of ecosystems, plants and animals; iii. Cultural, heritage and amenity values; iv. Human health; and v. Ambient air quality of any airshed; and (b) Regard to any existing discharge from the site, into air, and its effects.	**Consistent** Particular regard has been had to avoiding adverse effects of the discharge of contaminants to air. Where avoidance is not possible, adverse effects will be minimised, and causes of odour remedied. Even with the implementation of the recommended mitigation measures, odour is likely to have an adverse impact on amenity values for some sensitive receptors, and potentially upon cultural values, but not upon the other elements listed in parts i-v of this policy.
Policy 8.2.4 The duration of any permit issued to discharge contaminants into air will be determined having regard to: (a) The mass and nature of the discharge; (b) The nature and sensitivity of the receiving environment; and (c) Any existing discharge from the site, into air, and its effects.	**Consistent** The requested (and recommended) consent duration of 35 years has had regard to these factors. The receiving environment (residential neighbours) is sensitive to odour, but this is not a new activity in this location, and odour is expected to reduce in the relative short term.
Policy 8.2.5 To require, as appropriate, that provision be made for review of the conditions of any resource consent to discharge contaminants into air.	**Consistent** A review condition is recommended.
Policy 8.2.8 To avoid discharges to air being noxious, dangerous, offensive or objectionable on the surrounding local environment.	**Partially consistent, and increasingly consistent over time** The discharges to air are not expected to be noxious or dangerous. However, even after the implementation of comprehensive mitigation measures, offensive or objectional odours may be experienced by sensitive receptors on occasion. This is due in part to the proximity of sensitive receptors. Following closure and final capping of the landfill, offensive and objectionable odours are expected to reduce for all sensitive receptors.
Policy 10.1.1 The Otago Regional Council will encourage: (a) People undertaking land use activities to adopt management practices to avoid, remedy or mitigate any adverse effects of dust beyond the boundary of the property; and	**Consistent** It is unlikely that dust from operational activities will cause any adverse effects beyond the site boundary. The consent conditions proposed by the Applicant are considered to be appropriate.

(b) City and district councils to use land use planning mechanisms and other land management techniques to manage land use activities which have the potential to result in dust beyond the boundary of the property.	
Policy 11.1.1 To avoid or mitigate any adverse effects on human health or amenity values resulting from the discharge of offensive or objectionable odour through the use of: (a) Good management practices (including the use of codes of practice) and process technology that has an inherently low odour potential to ensure the amount of odorous contaminants generated by a process or activity is minimised; (b) Appropriate control technologies to reduce the emission of odorous contaminants; (c) Site planning mechanisms and other land use management techniques to reduce the potential for adverse off site effects; and (d) Tools and techniques that provide an objective assessment of odour, such as olfactometry, odour dose response assessments and community surveys.	**Consistent** While adverse odour effects cannot be completely avoided, they will be mitigated through the use of good management practices. Recommendations for odour walkovers and surveys, with appropriate responses and remedial actions, are included in the proposed consent conditions.
Policy 15.1.1 To support and promote, as appropriate, central government initiatives to control and minimise emissions of greenhouse gases and ozone layer depleting substances.	**Consistent** Landfill gas comprises a significant proportion of methane and carbon dioxide. Both of these are greenhouse gases. Methane emissions can be controlled be collection and combustion (via LFG flares). The Emissions Reduction Plan 2022-2025 indicates that, where feasible, gas collection will be required by 2026 at all Class 1 landfills accepting municipal waste. At the time of writing this report, the second Emissions Reduction Plan 2026-2030 has recently been released, and this would appear to limit the requirement for LFG to those municipal landfills that receive more than 10,000 tonnes of waste per year. The Green Island Landfill is well above this threshold and will continue to collect and destroy LFG, including after closure of the landfill. Mr Elliot recommends in his evidence that a lower trigger level be applied for fugitive emissions of methane from the landfill cap, to ensure that any

	remedial action can be undertaken in a timely manner. This is recommended in consent conditions.

Iwi Management Plans

Kāi Tahu ki Otago Natural Resource Management Plan 2005	
Provision	**Assessment**
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. 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. iii. Contaminants being discharged directly or indirectly to water are reduced. iv. 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. 5.3.4 Wai Māori General Policies 1. To require an assessment of instream values for all activities affecting water.	**Consistent** Mana whenua are best placed to speak to the cultural effects of activities. Via the CIA, Te Rūnanga o Ōtākou have set out a series of recommendations that would ensure that core values of wai māori, mahika kai and biodiversity, and wāhi tūpuna are protected. These recommendations have been adopted by the Applicant. The Applicant has adopted these recommendations and conditions. Te Rūnanga o Ōtākou provided a neutral submission on this application which raised the following concerns: a) That all possible measures are taken to preventing leachate from entering groundwater; b) Whether the monitoring network is adequate; and c) Whether elevated levels of ammoniacal-nitrogen, boron, and zinc (all leachate indicators) are attributable to natural estuarine conditions, or another source. These issues are discussed in expert evidence and are addressed in consent conditions. At the hearing, Te Rūnanga o Ōtākou may wish to speak to the adequacy of these conditions at addressing their concerns.

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. 3. To protect and restore the mauri of all water. 4. To encourage the use of the Cultural Health Index as a tool for monitoring waterways. 10. To encourage all stormwater be treated before being discharged. 11. To encourage identification of non-point source pollution and mitigate, avoid or remedy adverse effects on Kāi Tahu ki Otago values. 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. 54. To promote land use that suits the type of land and climatic conditions. 55. To oppose the draining of wetlands. All wetlands are to be protected.	

56. To promote integrated riparian management throughout entire catchments. 57. To oppose the indiscriminate use of chemicals or poisons in or near waterways. 5.4.3 Wāhi Tapu Objectives i. All wahi tapu are protected from inappropriate activities. ii. Kāi Tahu ki Otago have access to wahi tapu. iii. Wahi tapu throughout the Otago region are protected in a culturally appropriate manner. 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. 5. To promote the use of Accidental Discovery Protocols for any earth disturbance work. 6. To require all Maori archaeological finds to remain the cultural property of Kāi Tahu ki Otago. 7. To discourage all discharges near wāhi tapu. 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. ix. To create a network of linked ecosystems for the retention of and sustainable utilisation by native flora and fauna. 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. 12. To protect and enhance existing wetlands, support the reinstatement of wetlands and promote assistance for landowners for fencing-off wetlands. 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. 5.6.3 Cultural Landscapes Objectives 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. 5.6.4 Cultural Landscapes General Policies 1. To identify and protect the full range of landscape features of significance to Kai Tahu ki Otago. 6. To promote the identification of areas of historic heritage in collaboration with Local Government Agencies. 19. To require all earthworks, excavation, filling or the disposal of excavated material to: 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. 24. To discourage the erection of structures, both temporary and permanent, in culturally significant landscapes, lakes, rivers or the coastal environment. 5.7.2 Air and Atmosphere Objectives i. Kai Tahu ki Otago sites of significance are free from odour, visual and other ii. pollutants. iii. Kai Tahu ki Otago are meaningfully involved in the management and protection ofthe air resource. iv. The life supporting capacity and mauri of air is maintained for future generations. 5.7.3 Air and Atmosphere 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, wahi tapu and taoka. 3. To require Cultural Assessments for any discharges to air including agrochemical. To promote the planting of indigenous plants to offset carbon emissions. 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. iii. There is no direct discharge of human waste to Te Tai o Arai Te Uru and other contaminants being discharged directly or indirectly to the coastal environment are remedied. 5.8.4 Taku Tai Moana Me Wai Māori Policies 1. To encourage the integrated management of the coastal environment. 2. To require Kāi Tahu ki Otago input into any artificial openings or works in river mouths, estuary or lagoon systems. 5. To discourage any further reclamation within the coastal environment. 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.	