



Ministry for the
Environment
Manatū Mō Te Taiao

Contaminated Sites Remediation Fund

Application form for project funding

Funding Round: September 2024

Financial year: 2024/2025 and 2025/2026

Council name: Canterbury Regional Council

Project name: Peel Forest Closed Landfill Remediation

Phase/s: Phase 4 - Site Remediation

Official Information

Important: Information presented to the Minister for the Environment or the Ministry for the Environment is subject to disclosure under the Official Information Act 1982 (OIA). Certain information may be withheld in accordance with the grounds for withholding information under the OIA. Further information on the OIA is available at www.ombudsmen.parliament.nz.

Information held by the Minister and Ministry may have to be released under the OIA in response to a request from a member of the public (or any other body) for that information. If you wish to provide sensitive information to the Minister or Ministry that you do not want released, it is recommended you consult with the Ministry as to whether the information is necessary for the application, and whether there may be grounds in the OIA for withholding the information. For instance, if release of the information would disclose a trade secret, or be likely to unreasonably prejudice the commercial position of the person who supplied or who is the subject of the information, then there may be grounds to withhold the information. The Ministry will endeavour to contact you to discuss an OIA request relating to your application if one is received, and what the implications of releasing your information are.

The grounds for withholding must always be balanced against consideration of public interest that may justify release. Although the Ministry does not give any guarantees as to whether information can be withheld under the OIA, it may be helpful to discuss OIA issues with the Ministry in advance, if information provided with an application is sensitive.

Introduction

This application form is for funding proposals to the Ministry for the Environment's Contaminated Sites Remediation Fund (CSRF).

It is important to complete all fields in this application form. If the application is successful, the information you have provided will be used in the development of the funding deed.

It is preferable to complete this application form electronically, and submit it by email. Move between fields by using the mouse, or pressing the ↑ and ↓ keys on your keyboard. You may cut and paste from other documents for questions that allow for longer responses (more than 50 words). Note that some of the funding calculations will automatically be done for you.

If you need help to complete the application form, refer to the guide in the first instance. For any further information, email CSRFAapplication@mfe.govt.nz, or phone 0800 499 700. If you need an additional copy of the application form and guide, phone or email the Ministry and we will send you a copy.

Please read the *Contaminated Sites Remediation Fund Guide for applicants for project funding* (the guide) before completing this application form.

When your application is complete

The deadline for completed application forms to be received by the Ministry is the last working day of March or September, depending on the funding round. We encourage you to submit your completed application form well ahead of the deadline, as we are unable to accept late applications. We are also unable to assess incomplete applications, so it is important you provide all the required information.

All applications must be completed using this application form.

Email your completed application form and supporting documentation to CSRFAapplication@mfe.govt.nz (with 'CSRF application' in the subject line) or post it to:

Contaminated Sites Remediation Fund
Ministry for the Environment
PO Box 10362
Wellington 6143

SECTION 1: Applicant details

See page 17 of the guide for information about this section.

Organisation details

Regional council/unitary authority's legal name <i>one name only</i>	Canterbury Regional Council
Trading name (if different)	Environment Canterbury
Physical address <i>include post code</i>	200 Tuam Street, Christchurch 8011
Postal address <i>include post code</i>	PO Box 345, Christchurch 8140
Telephone	03 365 3828 <i>Landline</i> <i>fax</i>
Website address	https://www.ecan.govt.nz/

Contact person details

Principal contact name	Stephanie Koviessen
Position	Science Team Leader – Contaminated Land and Waste (Environment Canterbury)
Email address	Stephanie.koviessen@ecan.govt.nz
Telephone	03 365 3828 <i>Work</i> <i>mobile</i> <i>Fax</i>

Back-up contact name	Jacky Clarke
Position	Programme Delivery Manager (Timaru District Council)
Email address	jacky.clarke@timdc.govt.nz
Telephone	9(2)(a) <i>Work/Mobile</i> <i>Mobile</i> <i>Fax</i>

SECTION 2: Landowner/occupier details

Contact details

Complete the following table. This section does not need to be completed if the landowner/occupier cannot be identified, or is deceased, or has ceased trading.

If there is more than one landowner/occupier, record the information in a separate Word document, and submit this with your application.

See page 18 of the guide for information about this section.

Landowner's/occupier's legal name <i>one name only</i>	Toitū Te Whenua / Land Information New Zealand
Trading name (if different)	LINZ
Principal contact name	Dave King and Kim Wepasnick
Relationship to site	<input checked="" type="checkbox"/> Landowner <input type="checkbox"/> <input type="checkbox"/>
Physical address <i>include post code</i>	Level 7, 155 The Terrace, Wellington 6011
Postal address <i>if different from physical address</i> <i>include post code</i>	PO Box 5501, Wellington 6145
Email address	DKing1@linz.govt.nz , KWepasnick@linz.govt.nz
Telephone	9(2)(a) <i>Work</i> <i>mobile</i> <i>Fax</i>
Website address	www.linz.govt.nz

SECTION 3: Project details

1 What are the details of your project?

You will need to supply further details about requested funding in Section 7 of this application form.

See page 19 of the guide for information on how to complete this question.

Project name <i>maximum eight words</i>	Peel Forest Closed Landfill Site Remediation
	<input type="checkbox"/> Site investigation (phase two) <input type="checkbox"/> Remediation planning (phase three) <input checked="" type="checkbox"/> Site remediation (phase four)
Project purpose <i>maximum 40 words</i>	Removal of landfill waste materials until only underlying natural soils remain. Removed waste to be transported to managed disposal facilities. Site remediation, rehabilitation, and final design to occur with consultation between Te Rūnanga o Arowhenua, LINZ, and TDC.
Over how many financial years are you seeking funding?	Two (from September 2024 to September 2026)
What is the total anticipated cost for the project phase(s) covered by this application?	\$12.1 M (contains \$1.2 M for Waste Levy which an application for waiver will be made for). If funding is approved for this application, we would make that clear in the waste levy waiver application.

2 What objectives have been set for your project, and how do you intend to achieve them?

Specify the 'SMART' objectives for your project and provide detail about the types of activity that will be undertaken to meet the objectives. How will you measure their effectiveness of the activities using key performance indicators (KPIs)?

Ensure that a cost benefit analysis is submitted with your application (if one has been undertaken).

See page 20 of the guide for information on how to complete this question (maximum 100 words per row).

Press the **Tab** key on your keyboard to add more rows to the table, if required.

Objective	Activity	KPI
Establish a dedicated area for waste triage and contractor's yard to enable remediation works.	Benchmark testing of land proposed to be used as the waste triage area and contractor's yard and/or to be used for access to the riverbed below the landfill terrace. Establishment of waste triage area and contractor's yard. Establishment of erosion, sediment and stormwater controls.	Completion of soil benchmarking of the waste triage area and contractor's yard by a SQEP. Establish a designated area for waste triage and contractor's yard with safe and secure vehicle access to enable remedial works.

	Declaration of any unforeseen circumstances in terms of site remediation enabling activities.	Erosion and sediment controls designed and constructed as per the Erosion and Sediment Control Plan agreed with Regional Council as per the CRC consent.
Remedial earthworks and waste disposal.	Removal of the entire body of waste from the site until only natural underlying soils remain. Disposal of waste to approved waste disposal facility (i.e., Redruth Landfill, Timaru). Soil validation sampling and other validation works on completion of the remediation of the landfill.	All remediation and validation works are undertaken in accordance with the RAP. Onsite remediation work will be overseen by a SQEP.
Reinstate and stabilise the remediation area.	Site reprofiled and stabilised using site won soils and vegetation. Site fencing reinstalled.	Site rehabilitation carried out in partnership between TDC and Te Rūnanga o Arowhenua, in agreement with LINZ. Earthworks Completion Report with as built drawings. TDC receives written confirmation from LINZ confirming no ongoing liability for the site.
Return the temporary waste Triage Area and Contractor's Yard on land leased to grassed paddocks.	Removal of all equipment, erosion, sediment, and stormwater conveyance fixtures installed to facilitate remedial works. Reinstatement of land surface to original gradient/topography (using topographic survey data collected in August 2023 as reference) and soil type. Fences (if removed) are replaced to original specifications. Soil of a comparable quality to soils originally at the site used.	Soil sampling to confirm the contractor's yard has not been contaminated during the remediation works. Landowner provides written confirmation that they are satisfied with the degree of reinstatement, releasing TDC of any future responsibility.
Prepare Site Validation Reports (SVRs)	Complete soil validation sampling and other validation works on completion of the remediation of the landfill, triage area, and contractor's yard.	SVRs prepared by a SQEP in accordance with the MFE CLMG No.1 and CLMG No. 5 and peer reviewed. The SVR will confirm that exposure areas are remediated to the required standards. The SVR will provide assurance to decision-makers through reliable evidence that the risk to

		owner/occupiers and the wider environment has been reduced to acceptable levels.
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3 What are the expected benefits of the project?

Complete the table below. Ensure that all benefits are 'SMART' (maximum 40 words per cell).

See pages 21 and 22 of the guide for further information and examples.

*Press the **Tab** key on your keyboard to add more rows to the table, if required.*

Type of benefit	Description
<i>Economic, social, environmental, cultural or other type of benefit</i>	<i>Provide a brief, clear description of the benefit</i>

Social	Positive outcomes for the local iwi, community, and local authority by collaborating on a remedial project that completely removes or significantly reduces the threat of adverse environmental effects to areas of cultural importance and recreation. Builds trust within the community, and between government agencies (local and central) and the community.
Cultural	Collaboratively work with Te Rūnanga o Arowhenua to understand the integrity of the land and river margins at the site.
Environmental	Prevention of the release of contaminants and waste into the receiving environment, much of which would unlikely be recovered, with potentially significant adverse environmental effects persisting for unknown timeframes.
Health and safety	Removal of the physical and chemical risks to human health and other organisms in the receiving environment (i.e., the Rangitata River and downstream coastal/marine zone).
Economic	Removal of the need for the continued costly temporary river engineering to protect the landfill from erosion. Risk of landfill waste discharge into the receiving environment removed (i.e., removal of the risk of costly response to the discharge of more than 20,000 m ³ of waste into the environment).

4 What is the scope of the project?

In scope	Out of scope
Site establishment (waste triage, contractor's yard, and erosion sediment and stormwater management) and pre-remediation soil quality benchmarking at waste triage and contractors yard area.	Consent applications Completed work (e.g. DSI, ROA, RAP)
Remedial excavation and waste processing including stockpiling and testing visually clean material for retention on site (approx. 23,000 m ³ of waste to be generated made up of 18,000 m ³ of landfill materials and an allowance for additional 1 m depth of natural soils removed from beneath the waste to remove leachate impacts, this would add an additional 5,000 m ³).	River engineering works
Works oversight and off-site disposal of excavated waste to appropriately licensed and managed landfill (i.e., Redruth Landfill/Redruth, Hororata Managed Fill etc).	Any road improvements along the trucking route
Remediation decommissioning works (i.e., reinstatement of the remediated site as per the RAP)	
Reinstatement of the waste triage, contractor's yard and removal of temporary structures (e.g., erosion, sediment, stormwater controls).	

5 Are there any links to, or dependencies on, other projects?		
Link or dependency	How this will be managed	Person responsible for monitoring
Funding	This application is for 50% funding of phase four remedial works. Remediation of the site has been included in Timaru District Council's 2024/25 long term plan budget.	Project manager
Availability of consultant, ECan, and TDC staff - Demands of other workloads	Provide a reasonable timeframe in schedule and contracts to complete tasks. Have tender and procurement prepared in advance.	Project Lead/Project Manager

6 How will you schedule your project?

Ensure that a high-level project schedule for the phase(s) covered in this project is submitted with your application. (A Gantt chart is recommended for large projects). The project schedule should provide the following information:

- start and end dates of the project
- delivery date for each milestone

See page 23 of the guide for information on how to complete this question.

Description	Start date	End date
Enabling Works - Establish site to enable remedial earthwork (i.e., soil quality benchmarking at location of contractor’s yard/waste triage areas, installation of physical controls for erosion, sediment and stormwater management).	27 January 2025	31 March 2025
Remedial Earthworks - Complete remedial earthworks and reinstatement of the landfill area (including off-site disposal of waste and site remediation validation).	1 April 2025	1 March 2026
Reinstate Temporary Triage Area & Contractor’s Yard - Validation and reinstatement of waste triage area/contractor’s yard as per the RAP (PDP, 2023) and based on agreement with project stakeholders and project partners (i.e., site recontouring, planting, etc.).	1 March 2026	30 April 2026
Earthworks Completion Report - Prepare earthworks completion report.	1 April 2026	1 June 2026

All dates indicated above to be confirmed contingent on the outcome of funding and resource consent application outcomes. TDC are keen to start works as soon as everything is in place, so the start date will be brought forward if possible.

7 How will you evaluate your project?

How will you know your project is successful?

Describe how the effectiveness of your project will be monitored, evaluated and reported, based on the KPIs and answers you provided in question two (maximum 300 words).

See page 24 of the guide for information on how to complete this question.

The project will be considered successful if the purposes and objectives, the remedial targets, and remedial methodology set out by the RAP are successfully achieved without the requirement for significant departure from the proposed scope, budget and estimated timeframes, and without the occurrence of significant project risks associated with poor health and safety and environment planning or loss of project continuity due to the unexpected intentional departure of project team members.

Continuous positive engagement with the Te Rūnanga o Arowhenua and the local community over the life of the project will also be used as an indicator of overall project success. As local government organisations, Environment Canterbury and Timaru District Council have robust policies and procedures in place to uphold our values and obligations to our Canterbury community. Through this project Environment Canterbury and Timaru District Council are demonstrating to the community that the

current risk to their natural environment, and risks to their wellbeing and values associated with the site is being addressed.

The investigation and validation reports are completed by a SQEP to a high standard in line with the MfE Contaminated Land Management Guidelines, with additional peer review to ensure the quality of the process.

Timaru District Council procurement policies will be followed to seek tenders for the remedial earthworks.

The works are undertaken by experience and suitability certified contractors in line with the appropriate regulations.

SECTION 4: Site information

8 What are the details of the site?

See page 25 of the guide for information on how to complete this question.

Site address	End of Dennistoun Road, Peel Forest, Timaru.
Legal description(s) of site	Crown Land (under action) Survey Office Plan 3144.
Description of site location and setting	As per the RAP. In summary, the landfill site is rural land (approx. 0.5 ha) and is bounded by rural residential land use to the north, with livestock grazing paddocks located west and south. The landfill is situated in a northwest-southeast trending erosional gully at the top of a river cut terrace (30 m high) above the Rangitata River, which is situated immediately to the east.
Current use of site <i>include how water and land on the site are used</i>	The site is not currently used for any purpose. Stormwater from the surrounding catchment drains preferentially through an area referred to as 'the gully'.
When did the current landowner/occupier purchase the site?	Information on land ownership prior to LINZ is not available.

9 Is the site in an area that has cultural significance or natural, ecological, scientific or recreational value?

Yes No

If yes, provide details below (maximum 200 words).

See page 25 of the guide for examples.

- **Land/soil value** – soil at the location of the site including the proposed waste triage/contractor's yard is considered to be *high producing exotic grassland* based on information sourced from Manaaki Whenua and the National Policy Statement for Highly Productive Land 2022.
- **Surface water resource** – The Lower Rangitata River is the receiving environment and is identified as Land of National Significance and a Site of Special Wildlife Significance. The Lower Rangitata is one of the largest braided rivers in Canterbury. The river supports all of the typical braided river bird species of Canterbury including the threatened wrybill, black fronted tern, Caspian tern, and black billed gull. Blue ducks are also present in the gorge section. The Rangitata River also provides important habitat for indigenous fish. The Rangitata River is recognised as having high biodiversity and recreational values which consistently supports recreation (e.g., boating and fishing) throughout the year.
- **Cultural significance** – From the proposed Timaru District Plan, *the hapū who hold mana whenua in the Timaru District are Kāti Huirapa. The rohe of Kāti Huirapa extends over the area from the Rakaia River in*

the north to the Waitaki River in the south. The Papatipu Rūnaka that represents Kāti Huirapa is Te Rūnanga o Arowhenua who have important historical and cultural connections to both the land and waterways throughout Timaru.

10 What is the contamination history of the site?

Complete the table below.

Ensure that the phase one desktop study (undertaken by the council) is submitted with your application as supporting documentation.

See page 26 of the guide for examples.

Contamination history

<p>Which contaminants are present/ suspected to be present?</p> <p><i>provide a general description</i></p>	<p>The landfill holds a variety of industrial, demolition, farm, and household wastes including asbestos containing materials. The waste itself, soils impacted by the waste, and perched water contain contaminants. The contaminants of concern include:</p> <ul style="list-style-type: none"> - Asbestos fragments, fines and fibres – confirmed to be present throughout the waste. - Heavy metals and other contaminants including organochlorine pesticides and petroleum hydrocarbons – confirmed to be present above background levels and the default sediment guidelines in soils. Likely to be present in any leachate (note significant leachate not encountered in test pits to date, although pockets may be encountered). This information is based on the extent of test pitting carried out to date. Test pits did not bottom the landfill waste in all locations. - Landfill gases – Based on the results obtained, the landfill does not appear to be generating LFG at quantities that present a current risk. This is not unexpected given the age of the landfill. However, it would be expected that some pockets of LFG may still be present <p>Further details are included in the attached Detailed Site Investigation report (PDP, 2023).</p>
<p>When did contamination of the site occur?</p> <p><i>provide accurate dates</i></p>	<p>The site was used as a municipal landfill from c.1962 to 2004 and received waste from the local and surrounding settlements. It is suspected the area was originally a dump site used by locals which was then taken over by Strathallan County Council (established 1974). Strathallan Council amalgamated with TDC in 1989, which was when TDC took on responsibility for the landfill.</p> <p>Historical aerial images from the 1960s suggest the waste was originally placed at the head of the natural gully area, but over time was pushed into the gully from the main landfill area above. Since the landfill closure the site has been used for livestock grazing (i.e., horses up until 2020) but is now vacant.</p>
<p>Potential risk to human health</p> <p><i>provide details</i></p>	<p>The potential risk to human health posed by the site has been informed by the DSI undertaken in 2023 (PDP, 2023). The DSI assessed contaminants in the waste, potential LFG, and groundwater contamination issues. Groundwater testing and LFG screening results did not indicate any immediate or unacceptable risk to human health.</p> <p>While there are no current users of the landfill site, the continued threat of erosion to the landfill (e.g., as a result of severe rainfall/flooding events) poses a risk of landfill material releasing into the Rangitata River and the downstream coastal/marine environment. Therefore, downgradient users of these environments (recreational users and people consuming any fish etc) could be at risk.</p> <p>Based on the DSI, the most immediate contaminant of concern in terms of risk to human health at the site is asbestos which was consistently associated with main body of the landfill.</p>

	<p>Other contaminants, including heavy metals were detected at elevated concentrations above expected natural background within the landfill, including some heavy metal concentrations above recreational land use criteria.</p> <p>The physical waste also contains significant amounts of plastics which, if released into the environment, would result in micro and macro plastics which have been shown to enter the food chain and result in human health effects.</p> <p>Note – The DSI was informed by a dozen test pits advanced to depths no greater than around 4 m, which means the entire depth of landfill material has not been characterised. Test pits were terminated around 4 m for safety reasons and to avoid penetrating any potential lining/confining layer beneath the landfill which could create a preferential migration pathway for any leachate that may be present. It is possible that elevated contaminant concentrations and pockets of landfill gas and/or leachate could be present at greater depths.</p>
<p>Potential risk to environment</p> <p><i>provide details</i></p>	<p>The continued threat of erosion to the landfill (e.g., as a result of severe rainfall/flooding events) poses an unacceptable risk of landfill material releasing into the Rangitata River and the downstream coastal/marine environment.</p> <p>The landfill waste is comprised of plastics, metal, textiles, building materials, etc., that would contribute to significant adverse physical and aesthetic impacts to the receiving environment. Concentrations of heavy metals, organochlorine pesticides, and total petroleum hydrocarbons in the landfill soil matrix exceeded the default guideline values for sediment quality and would pose an ecological risk if released into the Rangitata River.</p>
<p>What activities caused the contamination?</p>	<p>Landfilling including the potential for uncontrolled fly tipping into the adjoining gully over the duration of the activity.</p>
<p>Are these activities ongoing?</p> <p><i>if yes, are they subject to any controls (e.g., discharge consent)?</i></p>	<p>No. Landfilling at the site ceased in 2004.</p>
<p>Has any action been undertaken to investigate or remediate the site?</p> <p><i>if yes, provide details</i></p>	<p>Yes. TDC’s response has included the following activities to a total cost of more than \$1,262,350 thus far, broken down as follows:</p> <ul style="list-style-type: none"> • Physical Works - \$958,155 • Advisory Services - \$304,188 <p>Environment Canterbury also contributed to the protection of the landfill (~\$270k) through the MBIE/Kanoa flood protection co-investment programme of work (shovel ready). This payment was made direct to the contractors.</p> <p>The costs indicated above have arisen in association with the timeline of activities below:</p> <ul style="list-style-type: none"> • December 2019 - Preliminary Test Pitting (with Initial Landfill Inspection). • December 2019 - Stage 1 Gully Remediation. • February 2021 - Geophysical Survey of Landfill Area. • May-June 2022 - Monitoring Bore Installation. • August 2022 - Groundwater Sampling. • September 2022 - Rangitata Riverbed Inspection.

	<ul style="list-style-type: none">• December 2022-January 2023 - Stage 2 Emergency Remediation Work.• October to November 2021 – River Engineering.• October to November 2022 – River Engineering.• January 2023 - Landfill Waste Characterisation and Groundwater Sampling.• May 2023 – Peel Forest Community Meeting.• Remainder of 2023 – Detailed Site Investigation and Remedial Options Assessment report, and subsequent resource consent preparation and lodgement.• 2024 – Ongoing regulatory planning and advisory support.
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11 What is the proposed use of the site following remediation?

Provide information about the proposed use of the site following remediation (maximum 200 words).

See page 26 of the guide for an example.

After the site is remediated it will be allowed to return to a natural state and contoured to direct stormwater down to the Rangitata River. It is not anticipated to topsoil the entire area but localised areas will be planted as agreed with Te Rūnanga o Arowhenua and LINZ.

12 Will all (or part) of the site be sold following remediation?

Yes

No

Unknown

If yes, provide details (maximum 200 words).

See page 26 of the guide for further information.

LINZ have given no indication they will sell the site upon completion of the remedial work.

SECTION 5: Site risk screening

Use the information from your risk screening report (undertaken during phase one) to complete this section. Include any other relevant information.

Submit the risk screening report as supporting documentation with this application.

13 Have Hazardous Activity and Industry List (HAIL) activities been undertaken on Yes No the site?

If yes, provide any known information about the activities, including the names of companies, details of processes undertaken, and records of spills/incidents.

See page 27 of the guide for information on how to complete this question.

Press the **Tab** key on your keyboard to add more rows to the table, if required.

HAIL activities	Dates	
	Start	End
HAIL G3. Landfill Sites	c.1962	2004

14 What are the site’s hazard and pathway components?

Complete the following table using the information available to you at the time of application.

See page 27 of the guide for further information.

Hazard	Components <i>provide the information used to derive the components</i>	Affected receptor
Names of chemicals of concern	Asbestos, heavy metals, organochlorine pesticides, and petroleum hydrocarbons have been identified. Based on the heterogeneous nature of landfilling, it is possible other contaminants are present.	<input checked="" type="checkbox"/> surface water <input checked="" type="checkbox"/> groundwater <input checked="" type="checkbox"/> direct contact exposure
Toxicity of chemicals of concern	The contaminants present are toxic and pose risk to human health (e.g. asbestos) and ecological receptors (heavy metals, organochlorine pesticides and petroleum hydrocarbons). The Rangitata River supports all of the typical braided river bird species and provides important habitat for indigenous fish.	<input checked="" type="checkbox"/> surface water <input checked="" type="checkbox"/> groundwater <input checked="" type="checkbox"/> direct contact exposure
Volume of chemicals on the site, or the volume of land affected	Waste volume is estimated to be up to 23,000 m ³ (assuming 18,000 m ³ of waste and up to 5,000 m ³ of leachate impacted underlying natural soils).	<input checked="" type="checkbox"/> surface water <input checked="" type="checkbox"/> groundwater <input checked="" type="checkbox"/> direct contact exposure
Mobility of chemicals of concern	Landfill materials have been exposed and released into the Rangitata River in 2019 and 2022/23. The landfill is extremely vulnerable to climate events and other natural hazards, including earthquakes which would mobilise waste material and contaminants into the environment.	<input checked="" type="checkbox"/> surface water <input checked="" type="checkbox"/> groundwater <input checked="" type="checkbox"/> direct contact exposure
Pathway	Components <i>provide the information used to derive the components</i>	
Containment of chemicals/contamination	<p>Cover material is inconsistent across the site and in some locations, negligible. Some waste fragments are daylighting, including concrete and tyres.</p> <p>Flood events in the Rangitata River have caused instability and collapse of the 30 m high river terrace over the last few years, resulting in landfill waste becoming exposed and released into the Rangitata River. This has been compounded by stormwater overland flow further eroding the face of the terrace exposing additional waste resulted in landfill waste entering the Rangitata River.</p> <p>Aside from river engineering works that have been carried out to relocate the Rangitata flow channel away from the river terrace, TDC has initiated remedial works to address exposed waste on two occasions (December 2019, and December 2022/January 2023). In December 2019, exposed waste was pulled back and secured held under cover within the gully area. In December 2022, exposed waste (including the previously secured waste) was removed from the forward third of the gully and disposed of at Redruth landfill. Additional work was done to stabilise the exposed gully area by installing a biodegradable (BioCoir) matting and revegetating the remediated area. In addition to this, a lay flat</p>	

	<p>flume was installed to preferentially drain significant stormwater flow over the site to prevent further stormwater erosion into the landfill waste.</p> <p>River engineering works are interim measures only and further erosion of the river terrace is highly likely. In addition, the risk of terrace edge collapse in the event of a significant earthquake cannot be ruled out.</p>
Thickness and nature of low permeability layer	There is no known low permeability layer underlying the landfill. The landfill was not bottomed in all test locations for safety reasons and to avoid penetrating any potential lining/confining layer beneath the landfill which could create a preferential migration pathway for any leachate that may be present.
Soil type (permeability)	<p>The geological map for the area (Cox and Barrell, 2007; 1:250,000) reports that the site is underlain by Late Pleistocene 'light brownish grey river gravel, sand and silt within abandoned outwash plains or low to mid-level terraces'.</p> <p>The natural soils encountered during site investigations to date generally comprise sandy gravel and cobbles.</p>
Distance to user	<p>The paddocks immediately to the west and southwest of the site are used for farming purposes (grazing of deer) and a rural/residential lifestyle property is located immediately across the northern boundary. The site is fenced on all sides except along part of the terrace and gully edge. At present, signage warning against entry to the site is posted; however, the fences around the site can be easily passed. Anyone can access the site via Dennistoun Road. TDC does not carry out any ongoing maintenance of the site. Horse grazing ceased in 2020.</p> <p>Groundwater is located approximately 25 m below current ground level. According to the ECan GIS database, there are no groundwater bores, active or otherwise, within a 500 m radius of the site</p> <p>The Rangitata River is the nearest surface water body and is located immediately east of the site, approximately 30 m below the site.</p>
Depth to hazard	Some waste material is visible across the surface of the landfill due to limited, if any, cover layer across the landfill surface. A layer of sandy greywacke gravels to between 0.3 and 0.6 m bgl was encountered over the landfill waste in some test locations, however this was observed to be inconsistent. Elsewhere, only a very thin layer of topsoil was encountered above the main landfill waste.
Type of aquifer present	Unconfined/semiconfined aquifer. Groundwater is approximately 25 m below the site.
Direct/sediment run-off and flood potential	The sediment run-off and river incursion and erosion potential is high and has occurred previously.

SECTION 6: Partnerships

15 Has appropriate due diligence been completed on the current landowner/occupier?

Yes No

If yes, please attach evidence to this application.

See page 28 of the guide for further information.

Yes. The current landowner is LINZ, who is fully aware of circumstances at the site and has been provided with the DSI findings, RAP and consulted in terms of proposed site remediation options. A copy of a letter confirming they are supportive of remediation being completed in line with the RAP is attached.

16 Is the current landowner/occupier willing to contribute financially to the remediation? Yes No

If yes, provide further information below. If no, provide the reasons why (maximum 100 words).

See page 28 of the guide for further information.

No. In a letter dated 15 July 2024 (attached), LINZ stated: “we are very supportive of the remediation of the closed landfill taking place in line with the Remedial Action Plan you have provided our team. As discussed with our Principal Advisor – Contaminated Land previously, we have no available funding to contribute to the project. This work falls outside our existing appropriation / liability.”

17 Is the current landowner/occupier willing to support the remediation in other ways? Yes No

If yes, provide further information below. If no, provide the reasons why (maximum 100 words).

See page 28 of the guide for further information.

Based on interactions with the site owner (LINZ) they are willing to support the remediation of the site by allowing access to undertake the remediation and by providing approval for proposed works. TDC, who is responsible for the landfill, has already engaged a SQEP to complete a DSI, interim remedial works, RAP, and resource consent applications. The tender package for contractor engagement has also been started.

18 Which individuals/partner organisations will be involved in the project?

Name of individual/organisation	Details of involvement	Contact person	Position	Phone number and email
Aoraki Environmental Consultancy Limited	Stakeholder/Partner	Ally Crane	General Manager	03 684 8723 / 9(2)(a)
LINZ	Landowner/Stakeholder	Dave King/Kim Wepasnick	LINZ Point of Contact	9(2)(a)
Environment Canterbury	Stakeholder/Regulator	Stephanie	Koviessen	03 365 3828 (Chch)
Pattle Delamore Partners Limited	SQEP and remediation oversight; Geotechnical Engineering; Stormwater Engineering; Resource Consent	Scott Wilson	Technical Director – Contaminated Land	9(2)(a)
		Andrew Smith	Technical Director – Geotechnics	9(2)(a)

	Applications; Preparing Tender package for Contractor Engagement			
TBD	Earthworks subcontractor	TBD	TBD	TBD
TBD	Licensed Asbestos Removal Contractor	TBD	TBD	TBD

19 Who are the project’s stakeholders?

Complete the table below (maximum 40 words per row).

See page 28 and 29 of the guide for information on how to complete this question.

*Press the **Tab** key on your keyboard to add more rows to the table, if required.*

Stakeholders	Details
<i>List the stakeholders that are included in this project</i>	<i>Give a brief description about their involvement and how your project will support and strengthen the partnerships between the stakeholders</i>

Environment Canterbury	Environment Canterbury is the regulatory planning authority who is responsible for permitting and monitoring the remedial works. They will be providing CSRF support and in-kind contribution.
Timaru District Council	Timaru District Council is coordinating the remediation of the former landfill site. TDC is responsible for the landfill.
Te Rūnanga or Arowhenua	The Papatipu Rūnaka that represents the hapū who hold mana whenua in Timaru District (i.e., Kāti Huirapa). The Rangitata and the surrounding region from the Rakaia River south to the Waitaki River hold cultural significance for them. Cultural support through their environmental business (Aoraki Environmental Consultancy Limited). Contribution in terms of reinstatement of vegetation on site.
LINZ	Site owner (Crown entity).
Site Neighbours and Peel Forest Community	Residents of Dennistoun Road and surrounding areas that are like to be most aware of the remedial works due to the proximity of those activities to their residential dwellings, and the presence of heavy vehicles on Peel Forest Road (i.e., south of the intersection with Dennistoun Road).

SECTION 7: Milestones and funding

See pages 30 to 38 of the guide for important, step-by-step information on how to complete this section, including how the financial component of the funding is broken down, and how voluntary donations of time and expertise towards your project (in-kind contributions) are assessed.

1 What are the milestones for phase three of your project (remediation planning)?

Only complete this question if phase three is included in this application.

Clearly outline up to a maximum of six milestones for phase three, including the tasks that make up each milestone (maximum 100 words per milestone).

Provide the total estimated cash cost for each milestone (exclusive of GST).

Milestone	Description	Estimated timeframe	Total estimated cost (A) <i>excluding GST</i>
			N/A
			N/A
			N/A
			N/A
Estimated total cash cost for phase three (A)			N/A

20 What are the milestones for phase four of your project (site remediation)?

Only complete this question if phase four is included in this application.

Clearly outline **up to a maximum of six** milestones for phase four, including the tasks that make up each milestone (maximum 100 words per milestone).

Provide the total estimated cash cost for each milestone (exclusive of GST).

Do not include in-kind contributions as this is covered at question 22.

See page 35 of the guide for examples.

Milestone	Description	Estimated timeframe	Total estimated cost (A) <i>excluding GST</i>
Milestone #1	Establish site to enable remedial earthwork (i.e., soil quality benchmarking at location of contractor’s yard/waste triage areas, installation of physical controls for erosion, sediment and stormwater management).	1-2 months	9(2)(b)(ii)
Milestone #2	Complete remedial earthworks and reinstatement of the former landfill area, including off-site disposal of waste and site remediation validation. Note – fee estimate for Milestone #2 assumes waste levy applies.	11-13 months	9(2)(b)(ii)
Milestone #3	Validation and reinstatement of waste triage area/contractor’s yard.	2-3 months	9(2)(b)(ii)
Milestone #4	Prepare an earthworks completion report	3 - 4 months	9(2)(b)(ii)
Estimated total cash cost for phase four (A)			\$12,110,000

21 Have you secured funding from other external sources (including partners)? Yes No

If yes, complete the table below. All amounts should be cash only and exclusive of GST. Please attach to this application any documentation that provides evidence of the funding secured from external sources. If your application is successful, we may contact the nominated person to discuss the status of the funding. In-kind contributions may not be included.

See page 36 of the guide for information on how to complete this question.

Other external funding sources

Individual/ organisation name	Contact name and phone number	Status of offer	Expected date for funding	Amount phase two (C) <i>excluding GST</i>	Amount phase three (C) <i>excluding GST</i>	Amount phase four (C) <i>excluding GST</i>
		<input type="checkbox"/> Pending <input type="checkbox"/> Confirmed	N/A	\$	\$	\$
		<input type="checkbox"/> Pending <input type="checkbox"/> Confirmed	N/A	\$	\$	\$
		<input type="checkbox"/> Pending <input type="checkbox"/> Confirmed	N/A	\$	\$	\$
<i>If you have secured further funding from more than three individuals/organisation(s), provide the amount in the Amount column to the right. Provide information about the individual's/organisation's name, contact details, status of offer and dates in a separate Word document (or piece of paper, if you are not completing this application electronically), and submit this as supporting information with your application.</i>				\$	\$	\$
Total other external funding sources (C)				\$	\$	\$0

If you have not attempted to secure funding from other external sources, provide the reasons why below. Include any other relevant information (maximum 100 words).

Contaminated Sites Remediation Fund Phase/s:

22 Provide detailed information about the estimated in-kind contributions your project will receive.

Provide information about the estimated in-kind contributions that your project will receive, including the estimated amounts (maximum 100 words per row).

Note that in-kind contributions are separate from the cash costs of the project.

See pages 36 and 37 of the guide for information on how to complete this question.

In-kind contributions summary

	Description	Phase two total estimated in-kind contribution (F) <i>excluding GST</i>	Phase three total estimated in-kind contribution (F) <i>excluding GST</i>	Phase four total estimated in-kind contribution (F) <i>excluding GST</i>
Professional services and goods <i>Calculate professional services using the actual hourly rate This includes council staff time</i>	TDC staff time/labour for project management, logistics and stakeholder liaison. ECan – Regional Council support.	\$N/A	\$N/A	9(2)(b)(ii)
Use/donation of equipment <i>Calculate equipment and other charges using the actual hourly rate</i>	TDC vehicles and equipment use	\$N/A	\$N/A	9(2)(b)(ii)
Facilities provided	Access Road maintenance Site surveys	\$N/A	\$N/A	9(2)(b)(ii)
Community volunteers <i>Calculate at a rate of \$30 per hour</i>		\$N/A	\$N/A	\$N/A

Other		\$N/A	\$N/A	\$0
Total in-kind contributions (F)		\$N/A	\$N/A	\$100,000

Contaminated Sites Remediation Fund Phase/s:

23 How much are you requesting from the CSRF, and how much have you obtained from other sources?

Complete rows B and D. Your answers from questions 18 – 22 will automatically populate rows A, C, E and F. All costs should be exclusive of GST.

See page 38 of the guide for information on how to complete this question, and about what the funding does not cover.

Funding summary

	Phase two	Phase three	Phase four
Estimated cash costs for project (A) <i>Cash costs (including contingencies) associated with the project only. Do not include in-kind contribution costs</i>	N/A	N/A	\$ 12,110,000
Your cash contribution to the project (B) <i>The amount your council is contributing to the project</i>	N/A	N/A	\$6,055,000
Other external cash funding sources, including partners (C) <i>Totals for any other funding you have secured</i>	N/A	N/A	\$ 0
Funding sought from CSRF (D)	N/A	N/A	\$ 6,055,000
CSRF share of costs (E) <i>Funding sought from CSRF (D) x 100 and divided by estimated project cost (A)</i>	N/A	N/A	50%
In-kind contributions (F) <i>Totals for any in-kind contributions you have secured</i>	N/A	N/A	\$ 100,000

The totals from the table above will automatically populate rows G and H. Ensure that you have clicked out of the table for the totals to calculate. All totals are exclusive of GST.

	Phase two	Phase three	Phase four
Estimated total costs for project (G) <i>G = A + F</i>	\$ N/A	\$ N/A	\$ 12,210,000
Estimated overall costs for project (H) <i>This total is a sum of all project phases in the row above</i>	\$ 12,210,000		

SECTION 8: Project management

24 What project governance is planned for the project?

Describe the project governance that is planned for the project, to ensure that decisions are made consistently and robustly, money is spent responsibly, and risk is managed effectively (maximum 250 words).

See page 39 of the guide for information on how to complete this question.

TDC in partnership with the environmental consultant/SQEP will coordinate project governance to cover the following:

- Financial tracking/reporting
- Scope/milestone tracking/reporting
- Comms/Stakeholder engagement and information sharing

The intent is to establish a system by which project scope, costs, and timing can be kept on track, while keeping stakeholders (not directly involved in running the project updated about overall project progress and any variations in the proposed works (if any)).

The project 'Governance Group' will include three internal staff members from TDC, together with members from ECan's Contaminated Sites Team, Papatipu Rūnaka, and PDP. Current staff on the committee are listed in Section 25 of this application. TDC staff will hold the project manager, project executive, project leader (with supporting project administrator roles). Additional supporting roles may be added to the team. The Governance Group will review all technical documents and provide recommendations and guidance to the wider project team.

A procurement process will be followed using the TDC Procurement Policy to select the lead earthworks contractor. The project manager will be responsible for monitoring and auditing the project.

25 What are the proposed roles and responsibilities within the structure of your project?

Complete the table below with information about the roles and their responsibilities within the project structure. At a minimum, the first project manager and project executive rows of the table must be completed. Note that both these roles must be from the regional council or unitary authority. Complete the rest of the table as relevant to your project.

See pages 39, 40 and 41 of the guide for information on how to complete this question.

Press the **Tab** key on your keyboard to add more rows to the table, if required.

Role	Name of person	Phone no.	Email	Responsibilities	Time commitment
Project Lead	Jacky Clarke (TDC)	9(2)(a)	Jacky.clarke@timdc.govt.nz	Liaison between stakeholders in support of project delivery.	30%
Technical Lead	Scott Wilson (PDP)	9(2)(a)	Scott.wilson@pdp.co.nz	Technical director and SQEP lead for remediation work.	30%
Project Management	David Hooke (TDC)	9(2)(a)	David.hooke@timdc.govt.nz	Project Management and health and safety oversight for remediation work.	40%
Project Executive	Andrew Dixon (TDC)	9(2)(a)	Andrew.dixon@timdc.govt.nz	Overall oversight/responsibility for delivery of project.	15%
Governance Group					
TDC	Andrew Dixon	9(2)(a)	Andrew.dixon@timdc.govt.nz	Overall oversight/tracking - responsibility for delivery of project.	½ day per month
ECan	Stephanie Koviessen	03 365 3828	Stephanie.koviessen@ecan.govt.nz	ECan project leader/support - MfE Liaison.	½ day per month
Aoraki Environmental	Ally Crane	03 684 723	allycrane@aecltd.co.nz	Cultural contact/liaison - Te Rūnanga o Arowhenua.	½ day per month

26 What is your risk management plan?

Complete the risk management table below by providing information about the top five risks that your project faces. The risks are those that relate to unforeseen matters largely outside your control but where you have clear measures in place to rectify the circumstances if they eventuate. See page 40 of the guide for information on how to complete this question.

	Risk 1	Risk 2	Risk 3	Risk 4	Risk 5
<p>Potential risk</p> <p><i>Identify the potential risk to your project</i></p>	<p>Health and Safety – The project will involve use of heavy equipment, significant earthworks, and disturbance of contaminated and potentially contaminated materials, and haulage and disposal of that material over a period that could be up to 12 months. In addition to health and safety concerns related to activities on-site, there is the added health and safety risk with key personnel travelling to and from the site and by increased numbers of heavy trucks on public roads.</p>	<p>Loss of Personnel – Relates to the potential for key project staff to become unavailable to fulfil their specific roles in the project, which can occur for any number of unforeseen reasons</p>	<p>Scope Creep/Alterations – The scope of the project is very clear; however, there is a potential for the project scope to vary (e.g., due to changes in remedial methodology due to unforeseen circumstances, severe weather events (e.g. Rangitata River flooding), natural hazards, accidental discovery of unexpected materials in the waste, etc.)</p>	<p>Project Timeframe Overrun and Cost Variations – Could be caused by other project risks, either singularly or in combination (e.g., malfunctioning equipment, unforeseen loss of personnel, certain tasks under scope carrying on for longer than anticipated, etc.)</p> <p>All aspects of the project have a cost. In circumstances where the project scope and delivery timeframes expand, so will direct cost.</p>	<p>Extreme Weather –</p> <p>The landfill is currently considered to be stable as emergency interim remedial works have pulled the exposed waste back from the gully edge in the terrace and stabilised the gully area.</p> <p>The vulnerability of the landfill to erosion means the potential for landfill waste exposure as a result of future rainfall/flood events is high and cannot be reliably predicted. This may occur during remedial works.</p> <p>High winds may lead to litter being mobilised and moved to neighbouring sites.</p> <p>Heavy rainfall could lead to stormwater flowing through open portions of the landfill and carrying contaminated sediment to neighbouring sites.</p>

<p>Strategy to mitigate</p> <p><i>Describe the process that you will use to minimise and manage the risk</i></p>	<p>Undertake and document a robust job safety hazard analysis to cover all project steps for all stages of the remedial work (including travel to and from the remediation site). This will be supplemental to controls included in the Remedial Action Plan and the Health and Safety Plans held by the lead contractor and other specialists attending the site. All parties participating in all field-based aspects of the project will need to be familiar with site remediation health and safety requirements. For the health and safety of the public, signage warning against unauthorised access to the site will be posted. A health and safety leader will be identified prior to works commencing and will be responsible for health and safety oversight as well as instructing updates to site health and safety documentation and signage (as necessary). The health and safety</p>	<p>The lead contractor, technical specialists, and key stakeholders (including those involved in project governance) who are considered integral to the progress of the project will be required to have adequate support from personnel within their company/organisation. In the event of an unforeseen departure from the project, the support person(s) should be sufficiently informed about the project to stand in temporarily or permanently to ensure project continuity.</p>	<p>Understanding the information that is available about the remediation site (e.g., physical setting, remedial objectives/limitations, project stages/milestones and how to achieve these) is integral to ensuring that scope creep does not occur. The best strategy for mitigating this risk is ensuring that all personnel involved in the project are suitability qualified and experienced within their respective areas of expertise, have full context about the remediation, and are capable of making reasonable assessments of all aspects of the project scope prior to starting works (to the point of being able to identify and address critical information gaps ahead of initiating critical project stages).</p>	<p>Best estimates have been made about how long the project is likely to continue from commencement to completion. Nevertheless, this risk is heavily dependent on the scope of services being delivered without unreasonable and unplanned interruptions. Such interruptions could be caused by equipment malfunctions, inclement weather, unexpected discoveries at the remediation site (e.g., related to ground conditions, contamination, etc.).</p> <p>With all projects, direct costs will vary above or below projected estimates because of intended or unintended scope alterations. The best way to mitigate this risk is to ensure that all aspects of the project are priced accurately and that an experienced project manager is in place to coordinate project finances. Regular project progress check ins are recommended as</p>	<p>The weather forecast will be monitored to identify any possible Rangitata River flood/erosion events, which, if identified, could result in remedial works being put on hold until the event has passed and the SQEP and geotechnical engineer have completed an assessment of the terrace and any exposed and/or released landfill waste.</p> <p>If wind conditions are unfavourable, works will cease until such time as the wind dies down. Scrim/litter fencing is proposed around the contractors yard. Inspections of the site and surrounding area will be completed regularly and litter removed as required. The requirement for mobile litter fencing around the landfill excavation work area will be considered as the project progresses.</p> <p>The size of the exposed face of the landfill will, as far as practicable, be minimised to minimise the risk of high winds</p>
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	track record of the lead contractor will also be taken into consideration.			these could detect early signs of activities across the project scope that could lead to cost overruns down the track.	<p>mobilising litter and/or stormwater and heavy rain seeping through waste.</p> <p>Appropriate options for dealing with stormwater discharges during heavy rain events include dirty/clean water diversion bunds used as a temporary barrier to ensure all sediment laden stormwater is retained in the landfill and the landfill waste processing areas of the contractor's yard and that clean stormwater does not enter. A silt fence could be installed on downgradient edges of the contractor's yard, to further ensure that sediment-laden runoff does not escape to the neighbouring sites.</p>
Level of risk occurring <i>Select from the drop down box</i>	Possible	Possible	Possible	Possible	Possible
Impact on project <i>Select from the drop down box</i>	Moderate impacts with good project recovery	Minor impact with short to medium term effects	Moderate impacts with good project recovery	Moderate impacts with good project recovery	Moderate impacts with good project recovery
Consequences <i>Describe the consequences the risk would have on the project (e.g.,</i>	Severe injuries/death, diminished project team moral, incomplete work.	Project progress disrupted, duplication of effort, slowed delivery of	Cost and time overruns, duplication of work, failure to meet remedial	Cost overruns, incomplete or marginally satisfactory work, failure to meet stakeholder	Possible release of landfill waste into the environment, lost and time overruns, failure to

Contaminated Sites Remediation Fund Phase/s:

<i>misunderstandings, duplication of work, incomplete work)</i>		project, misunderstandings.	objectives and key milestones.	expectations, diminished project team moral.	meet remedial objectives and key milestones.
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27 Does the organisation managing the project have a health and safety policy or plan? Yes No

If yes, provide copy of health and safety policy with application and go to question 30. If no, provide the reasons why (maximum 100 words) and then go to question 31.

See page 41 of the guide for further information.

TDC has a health and safety policy that requires all project principals, engineers and contractors to demonstrate that they can meet their obligations in terms of the Health and Safety at Work Act (HSWA) 2015, and this is included as a mandatory condition under TDC contract agreements. Any successful tenderer undertaking work on behalf of TDC is required to submit a Safety Management Plan (SMP) ahead of commencing works and that SMP must account for site-specific hazards that could be encountered. Health and safety management information sought and reviewed from tenderers contracted to TDC include but are not limited to:

- Quality, environmental and health and safety policies and responsibilities,
- Plant and equipment management/operation methods,
- Methodologies for work with various risk scenarios (e.g., work at height, with hazardous substances, etc.),
- Training and inductions,
- Incident management,
- Health and safety monitoring,
- Etc.

In terms of health and safety, TDC has sole responsible for the review, rejection/approval of any tenderers who may seek to carry out services under an agreement with TDC.

28 Are the project's activities covered by the organisations existing health and safety policy or plan? Yes No

If yes, go to question 22. If no, go to question 31. See page 42 of the guide for further information.

29 Does a Health and Safety Plan need to be developed specifically for the project? Yes No

If yes, go to question 32. If no, provide the reasons why (maximum 100 words). See page 42 of the guide for further information.

The health and safety plan will be developed with participation from the lead contractor, the SQEP and TDC. The lead contractor will develop their own health and safety plan or safety management plan, as required under TDC's health and safety policy.

30 Who will be responsible for the health and safety plan and/or policy?

See page 42 of the guide for further information.

Name of person	Title	Organisation	Project role
David Hooke	Projects Officer	TDC	Project Manager

31 Will the health and safety plan and/or policy be audited and/or reviewed?

Yes No

If yes, provide details of who will undertake the audit/reviews and their frequency if known. If no, provide the reasons why (maximum 100 words). See page 42 of the guide for further information.

Name of person	Title	Organisation
David Hooke	Projects Officer/Health and Safety Oversight	TDC

David Hooke is a project manager at TDC and has more than 40 years' experience, including for health and safety oversight and subcontractor management. It is proposed that health and safety check ins are undertaken on a weekly basis over the course of site works to evaluate and/or improve health and safety procedures. Weekly health and safety check-ins will involve documenting reports of near misses, injuries, unexpected discoveries of hazards, and an audit of field staff hygiene and personal protective equipment use. In the event of a notifiable health and safety incident occurring at the site, Mr. Hooke will be responsible for liaising with WorkSafe on the matter. In the event of overtly poor or repeated health and safety infringements by anyone undertaking work at the site (including repeated breaching of speed limits), Mr. Hooke will have the authority to stop works until health and safety concerns can be appropriately resolved. For either of these instances, both the project executive and the TDC health and safety manager would also become involved

32 Identify the five most significant hazards associated with this project / risks relating to disturbance of contaminated soil that are foreseeable at this stage and as such can be addressed in the project's site-specific health and safety plan. See page 41 of the guide for further information.

No.	Hazard	Potential impact	Management
1	Sudden land loss caused by destabilisation of the site during remedial works or by severe storm or earthquake event	Injury or death risk for site workers. Significant implications for project continuity/incomplete work	Monitoring of terrace and ground conditions by geotechnical specialist/engineer. Monitoring the weather forecast and stopping works during adverse weather.
2	Heavy trucks and earthworks equipment operation	Increased risk of injury to site workers, potential for destabilisation of landfill site (current physical setting could add to risk).	All site staff are to be Site Safe trained and will complete a site specific safety induction. There will be robust subcontractor oversight, clear communication on-site between all parties, including expectations around heavy vehicle operations clearly documented and discussed prior to mobilisation.
3.	Discharge of contaminants, waste and sediment into the receiving environment	Significant adverse environmental effects on the Rangitata River and downstream coastal environment	Implementation of robust erosion, sediment, and stormwater management protocols. Careful progress through stages of waste recovery and removal from the landfill. Completing regular inspections of the riverbed and hand picking any windblown waste that is encountered.
4	Human health exposure to contaminants in waste/leachate (e.g., asbestos, heavy metals, and possible pathogens)	Acute or chronic human health impacts resulting from exposure to contaminants in the landfill site (e.g., from inhalation of asbestos fibres)	All workers within the active remediation area must wear personal protective equipment that is appropriate for nature of the contaminants believed to be present on-site and the associated exposure pathways. Dust will be managed to limit the production of airborne asbestos fibres and reassurance air monitoring will be completed to confirm controls are effective.
5	Human health exposure to landfill gases (albeit low)	Acute impacts resulting from inhalation of harmful landfill gases (e.g., hydrogen sulphide and methane) if present	Appropriate site hazard signage is to be clearly visible at the site boundary. No personnel should enter the excavation areas deeper than 1 m unless they are trained and experienced in confined space entry. At

			least one person, ideally the excavation spotter, is recommended to wear a personal gas alert unit appropriately calibrated for landfill gas monitoring. Some monitoring of ambient air using landfill gas meter is also recommended.
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33 What is your reporting plan?

Complete the reporting plan table below.

See page 43 of the guide for examples and information.

Press the **Tab** key on your keyboard to add more rows to the table, if required.

Target audience	Type of report	Purpose	Timing
<i>Who is your target audience (e.g., landowners, local community, central government)?</i>	<i>Provide the name of the report</i>	<i>What is the purpose of your reporting plan and what do you hope to achieve (e.g., develop awareness, impart information, deliver education, bring about behaviour change, etc)?</i>	<i>How often will the report be distributed?</i>

MfE, Governance Group	Monthly Progress Reports	Provides update on project status in terms of the progress of remedial goals and objectives against project scope and budget.	Monthly
TDC/MfE/ECan	Status/Milestone Reports	Regular progress updates to the project executive. Detailed tracking against budget, timeline, and milestones. Escalate project risks, issues and decisions as required for consideration by governance body as appropriate.	Significant milestones
Local community	Progress updates via website and stakeholder updates	High-level updates for the community on progress.	Monthly

34 What are your proposed quality assurance processes?

Complete the table below.

See page 43 of the guide for information on how to complete this question.

Press the **Tab** key on your keyboard to add more rows to the table, if required.

Deliverable	Acceptance criteria	Person responsible	Due date
<i>e.g., final report</i>	<i>e.g., report needs to comply with the Ministry's Contaminated Land Management Guidelines for reporting on contaminated land</i>	<i>e.g., project manager</i>	

Confirmation of site establishment (Milestone #1)	Benchmark soil sampling across the waste triage area and contractor's yard as per the requirements outlined in the RAP (PDP, 2023). Evidence to include soil quality results, photographic evidence, sample locations and site maps, etc.	SQEP – Contaminated Land	April 2025
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Landfill Area - Site Validation Report (Milestone #2)	Compliance with MfE (2021) CLMG No.1 and CLMG No. 5 (Revised 2021)	SQEP – Contaminated Land	March 2026
Triage Area / Contractor's Yard – Site Validation Report (Milestone #3)	Compliance with MfE (2021) CLMG No.1 and CLMG No. 5 (Revised 2021)	SQEP – Contaminated Land	April 2026
Earthworks Completion Report with asbuilt Drawings (Milestone #4)	To document final landform design which must comply with industry best practise.	Geotechnical Engineer (PEngGeol), Water Infrastructure Engineer (CPEng)	June 2026

SECTION 9: Additional information

35 Is there anything else we need to consider about your application?

This space is for you to provide any additional information that your organisation considers important, but has not been covered in previous sections of this application form, e.g., any known conflicts of interest

Include any assumptions which have influenced the approach to the project (maximum 250 words).

See page 44 of the guide for information.

Up to the point of submitting this application, TDC has spent approximately \$1.2 million on the management and remediation of the closed landfill site. These details are as per the 'Contamination History' described under Section 4 of this application document.

The estimated costs provided are best estimates and subject to change base do how contractors tender the document, the actual volume of waste encountered (estimated waste depth is based on geophysical surveys only which have limitations), the volume of overdig required to remove any leachate impacts from underlying natural soils etc.

As indicated by the RAP, TDC plans dispose of the waste removed from the site to the Redruth Landfill due primarily to the asbestos present, with some waste being removed to alternative approved waste disposal sites, if/where appropriate.

With respect to Redruth, it is important to address the landfill's capacity and suitability to accept waste from the remediation of the Peel Forest closed landfill site, with the current estimated worst case of waste to be disposed being up to 24,000 m³. It is also prudent to address potential concerns about the future of Redruth in terms of potential impacts from climate change and resultant sea level rise (e.g., coastal erosion and coastal flooding).

In summary:

- Information provided by the TDC indicates that Redruth has between 20 to 30 years of air space remaining. The worst case volume to be disposed of at Redruth landfill from the Peel Forest closed landfill will equate to approximately 1.62 % of the overall remaining capacity of Redruth landfill.
- In terms of impacts from climate change, the following publicly available information sources were assessed:
 - *Timaru Coastal Erosion Assessment* report (Jacobs, 2020),
 - *Interim guidance on the use of new sea-level rise projections* (MfE, 2022) and the NIWA Coastal Flood Layers Viewer, and
 - *Infrastructure Strategy 30 Year Plan 2024-54* (Timaru District Council, 2024),

With respect to the above, the potential risk from coastal erosion and inundation to Redruth landfill does exist, and these risk factors could cause damage to Redruth within 50 years; however, key railway infrastructure between the coast and Redruth (i.e., KiwiRail's main trunk railway line, specifically) is expected to continue offering protection to the landfill for the foreseeable future, with greater risks from coastal erosion focused along the Patiti Point headland a short distance along the coast to the north. TDC will continue to carry out ongoing monitoring in the coming decades.

36 Are there any documents that the Ministry needs to read in conjunction with your application?



Yes



No

If yes, complete the table below.

See page 45 of the guide for examples.

Ensure that the documents are submitted with this application form.

Press the **Tab** key on your keyboard to add more rows to the table, if required.

Name of document

Peel Forest Closed Landfill – Detailed Site Investigation (PDP, September 2023).

Remedial Options Assessment: Peel Forest Closed Landfill, Dennistoun Road, Peel Forest (PDP, October 2023).

Remedial Action Plan – Peel Forest Closed Landfill, Dennistoun Road, Peel Forest (PDP, April 2024).

Dust Management and Monitoring Plan – Peel Forest Landfill (PDP, February 2024).

Timaru District Council – Infrastructure Committee Meeting Agenda – 12 March 2024 (this includes reports from Aoraki Environmental and ECan and the Peel Forest Landfill – River Erosion Risk Assessment (PDP, February 2024)).

Resource Consent and Assessment of Environmental Effects – Peel Forest Closed Landfill Removal and Restoration (PDP, April 2024).

Timaru District Council Health and Safety Manual, Version 1, April 2024

Letter of endorsement from LINZ to TDC dated 15 July 2024

Note – the AEE includes the RAP, DMMP, and DSI reports for the site under one cover.

SECTION 10: Declaration

This declaration must be completed by a person with the council's signing authority.

See page 45 of the guide for further information.

Important: Please contact the CSRF Team if you have any queries regarding the terms and conditions of the Funding Deed for the CSRF.

As a duly authorised representative of the organisation as per Section 1 of this Contaminated Sites Remediation Fund application form:

- I declare that I have read, and agree to, the standard terms and conditions of the Funding Deed for the Contaminated Sites Remediation Fund.
- I declare that I have read the *Contaminated Sites Remediation Fund Guide for applicants for project funding*.
- I declare that to the best of my knowledge, the information contained in all sections of this application form, or supplied by us in support of our application is complete, true and correct.
- I declare that I have the authority to sign this application form and to provide this information.
- I declare that all regulatory requirements regarding the project have been met, and that any required approvals and/or consents have been granted.
- I understand that information presented to the Minister for the Environment and Ministry for the Environment is subject to disclosure under the Official Information Act 1982.
- I agree that the Ministry for the Environment may collect information about our organisation from other parties, and may liaise with local and national organisations in respect of this application.
- I agree that the Ministry for the Environment can undertake a background check on the applicant(s).

Name	Brodie Young	
Position	Environmental Science & Hazards Manager	
Signature	Brodie Young	22 July 2024

By typing your name in the space provided you are electronically signing this application form.

Checklist

Use the following checklist to confirm you have provided all the required information in your application.

Do not include any attachments that the Ministry has not specifically requested.

- All sections of this application form completed
- Declaration signed and dated

The following supporting documentation attached:

- cost benefit analysis (if undertaken)
- high-level project schedule for the phase(s) covered in this project
- phase one desktop study
- risk screening report
- documents that the Ministry needs to read in conjunction with your application

Your feedback

Did you find this application form easy to understand and complete?

- Not at all Mostly Very

Provide general comments below.