



Ministry for the
Environment
Manatū Mō Te Taiao

Contaminated Sites Remediation Fund

Application form for project funding

Funding Round: March 2024

Financial year: 2024-2025

Council name: Otago Regional Council and Dunedin City Council

Project name: Kettle Park Coastal Landfill Remediation Planning Project

Phase/s: Phase 3

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.

<https://www.dunedin.govt.nz/ps://www.dunedin.govt.nz/>

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 CSRApplication@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 CSRApplication@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>	Otago Regional Council (ORC)
or trading name (if different)	Otago Regional Council (ORC)
Physical address <i>include post code</i>	70 Stafford Street, Dunedin, 9010
Postal address <i>include post code</i>	Private Bag 1954, Dunedin
Telephone	(03) 474 0827 or 0800 474 082
Website address	www.orc.govt.nz

Contact person details

Principal contact name	Joon Van Der Linde (JVDL)
Position	Principal Compliance Specialist – Otago Regional Council
Email address	joon.vanderlinde@orc.govt.nz
Telephone	(0_) JVDL 9(2)(a) (0_) <i>work mobile Fax</i>
Back-up contact name	Dwayne Daly or Dr. Raphael Krier-Mariani (DCC)- See Section 2
Position	Dwayne Daly - Senior Consents Planner – Otago Regional Council
Email address	dwayne.daly@orc.govt.nz
Telephone	(0_) 9(2)(a) (0_) <i>work mobile 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>	Dunedin City Council
Trading name (if different)	
Principal contact name	Dr. Raphael Krier-Mariani
Relationship to Site	<input checked="" type="checkbox"/> Landowner <input type="checkbox"/> Occupier <input type="checkbox"/> Other <i>please specify</i>
Physical address <i>include post code</i>	Dunedin City Council: 50 The Octagon, Dunedin PO Box 5045 Dunedin 9054, New Zealand
Postal address <i>if different from physical address</i> <i>include post code</i>	Dunedin City Council: 50 The Octagon, Dunedin PO Box 5045 Dunedin 9054, New Zealand
Email address	Raphael.Krier-Mariani@dcc.govt.nz
Telephone	03 477 4000 9(2)(a) [REDACTED] <i>work</i> <i>mobile</i> <i>Fax</i>
Website address	www.dunedin.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.

<p>Project name</p> <p><i>maximum eight words</i></p>	Kettle Park Coastal Landfill Remediation – Planning Phase
<p>Project phase(s) included in this application</p> <p><i>tick as many as applicable</i></p>	<input type="checkbox"/> Site investigation (phase two) <input checked="" type="checkbox"/> Remediation planning (phase three) <input type="checkbox"/> Site remediation (phase four)
<p>Project purpose</p> <p><i>maximum 40 words</i></p>	<p>The Kettle Park historical landfill is located landward of the St Clair-St Kilda beach dune system. Waste was placed within the landfill from around 1900 to the early 1950s, with the landfill capped in the 1960s and developed into sports fields that remain today.</p> <p>Investigations completed on behalf of DCC indicate that more than 250,000 m³ of landfill waste/contaminated soil may be present within and behind the dune system. The landfill materials include gas works waste and construction/demolition waste (including asbestos).</p> <p>Coastal processes, which are likely to be exacerbated by climate change, are likely to increase the erosion of the dune system, and exposure of the landfill behind. Preliminary assessments indicate that under present erosion potential, 33,430 m³ of waste material is at risk of being exposed. This estimate increases under the effects of sea level rise, with up to 47,860 m³ at risk of being exposed from erosion by 2040, 89,060 m³ by 2070 and 176,320 m³ by 2120, making this Site highly vulnerable to present and future environmental conditions. Thus, to be efficient, remedial options should be developed accounting for coastal processes, more precisely for the erosion potential.</p> <p>The St Clair-St Kilda Coastal Plan identifies a number of potential options to manage coastal erosion and contaminant exposure/discharge from the landfill. These options include the removal of at least part of the current dune system.</p> <p>The purpose of this project is to develop an Assessment of Remediation Options (ARO) and a Remedial Action Plan (RAP) to mitigate the risks of contaminant exposure to the public and discharge in the Environment induced by erosion acting on the seaward section of the landfill. Collectively, these two plans will optimise the remediation strategy of the Kettle Park Coastal landfill.</p> <p>The DCC is currently implementing emergency coastal structures by April 2024 to protect the seaward edge of the landfill from coastal erosion and reduce the risk of mass contaminant discharge. The structures implemented will have a 4-5 year lifespan. Thus, the ARO and RAP need to be completed this year in order to guide the remedial solutions through the council for remediation to be completed within the lifespan of the emergency coastal structures.</p>
<p>Over how many financial years are you seeking funding?</p>	Two

What is the total anticipated cost for the project phase(s) covered by this application?	\$ 129,150
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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
Long-term options to manage landfill exposure due to coastal process are identified, assessed and costed to a concept level by mid-September 2024.	<p>Develop an Assessment of Remedial Options (ARO) accounting for the exposure risk induced by the seaward erosion of the landfill to define the most appropriate remediation option.</p> <p>The ARO should provide greater details on the design costs and environmental impact of the preliminary high-level remediation options carried out by the Dunedin city council. The ARO will also need to integrate the findings of the detailed coastal processes assessment (currently being completed on behalf of DCC).</p> <p>As remediation will be undertaken in a coastal area, remediation options must comply with the coastal management plan in place in the area.</p> <p>Remediation options' efficiency will be assessed on the following criteria: Environmental viability, socio-economic viability, sustainability and lifespan.</p>	<p>1- ARO provides an assessment of the remedial options for the seaward portion of the landfill based on 20, 50 and 100 years of projected erosion potential induced by sea level rise.</p> <p>2- Produce an ARO is prepared by a SQEP in accordance with CLMG#1, with appropriate input from other technical specialists (e.g. coastal engineers/geomorphologists).</p> <p>3- Deliver a Remediation Options Report to the Ministry (ROR)</p>
Confirm the preferred remedial option by mid-November 2024.	<p>Engage with internal/external stakeholders and the community.</p> <p>Introduce remediation options to internal stakeholders to assess the feasibility of each option (based on funds required, lifespan, and efficiency).</p> <p>Introduce remediation options to Mana Whenua representatives. A necessary step to ensure that the remediation options align with Mana whenua's values.</p> <p>Introduce remediation options to the local communities, providing space for the community to give feedback on the proposed options.</p>	<p>1- Engagement plan is developed, setting out engagement milestones.</p> <p>2 Engagement adheres to plan milestones.</p>
Develop a Remediation Action Plan (RAP) in collaboration with the	Develop RAP comprising the detailed remedial design of the preferred option.	1- RAP is prepared by a SQEP in accordance with CLMG#1, with appropriate input from

consultant by mid-January 2025		<p>other technical specialists (e.g. coastal engineers/geomorphologists).</p> <p>2 RAP provides sufficient detail to support resource consent application(s) for remedial options.</p> <p>3 RAP provides sufficient information to support tendering.</p> <p>4 RAP provides sufficient information regarding the management of contamination-related H&S risks to protect workers and the public – particularly considering the high profile and publically accessible nature of the Site.</p>
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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 <i>Economic, social, environmental, cultural or other type of benefit</i>	Description <i>Provide a brief, clear description of the benefit</i>
Environmental/Human Health	Previous investigations reported that the concentrations of contaminants in the landfill exceed human and environmental standards ^[3,4] . These contaminants will likely become exposed under present and future site erosion. Thus, site remediation will reduce the risk of contaminants discharge in the coastal Environment and the Ōrau Marine Reserve and reduce the risks to human health for beach users.
Cultural	Mitigate the risk of contaminant exposure to adjacent mahika kai, wāhi tapu and to Te Tai o Arai Te Uru. Align with mana whenua values around protecting the mauri of, preserving, and restoring the natural coastline, including recognition of the cultural and spiritual significance of the area from Whakahekerau to Rakiātea
Social	Enhanced collaborative efforts around environmental management between MfE/ORC/DCC and mana whenua (represented by Aukaha). Preservation of Saint Clair – Saint Kilda beach, a highly

	<p>valued amenity by the community in terms of benefits for mental and physical health.</p> <p>In line with the community's vision regarding the restoration of a natural coastline in this coastal embayment.</p>
Economic	<p>Ensure that one of Dunedin's touristic hotspots, Saint Clair Saint Kilda Beach, remains accessible to the public.</p> <p>Repurposing this coastal area will enhance the natural aspect of the beach and, subsequently, its tourism value. Furthermore, remediating the landfill material will provide space for the council to improve beach access to the currently over-steepened dune face.</p>
Environmental/Human Health	<p>The RAP will set the standards for the remediation of the landfill, which will comply with the national Environmental standards and MfE requirements and be in accordance with the Contaminated Land Management Guideline 1 and 5. This will mitigate human and environmental risks.</p>

4 What is the scope of the project?

Provide information about what the project will do (in scope) and won't do (out of scope).

See page 22 of the guide for information on how to complete this question (maximum 300 words).

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

In scope	Out of scope
Prepare an ARO for the Kettle Park Coastal Landfill	Temporary structure implementation for mitigating the imminent risk of exposure due to erosion
Engage with Stakeholders and confirm preferred remedial option(s).	Clean up of waste materials currently exposed on the beach.
Prepare an RAP for the Kettle Park Coastal Landfill	Execute remediation work.

5 Are there any links to, or dependencies on, other projects?

Provide information about the links and dependencies that exist between this project and any other project or programme that may affect the delivery of this project (maximum 150 words per row).

See page 22 and 23 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.*

Link or dependency	How this will be managed	Person responsible for monitoring
Saint Clair Saint Kilda Coastal Plan (SCSK-CP) - Upstream	<p>The technical program of the Saint Clair Saint Kilda Coastal Plan will refine the erosion potential predictions. These predictions are based on future sea level rise projections and will inform the remediation designs of the ARO. This baseline assessment upon which the ARO will be developed is expected to be delivered on the 22nd of July 2024.</p> <p>The project manager will ensure that the</p>	DCC Project Manager

	SCSK-CP is on track (Monitor deliverables) and that the exchange of information between the two programs is clear and efficient.	
South Dunedin Future program - Downstream	The results of the ARO and RAP should align with the overall strategy of the South Dunedin Future program, which consists of managing the effects of climate change on South Dunedin. The project manager will plan regular catch-ups with the South Dunedin future team to ensure that both projects are aligned.	DCC Project Manager
Stakeholders engagement - Downstream	Keep stakeholders informed through the process via regular documented meetings.	DCC 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
Project start (Total 7 months)	15 June 2024	1 January 2025
Milestone 1: Procurement and contract set-up (1 month)	15 June 2024	15 July 2024
Milestone 2: ARO (2 months)	15 July 2024	15 September 2024
Community and Stakeholder engagement (2 months)	15 September 2024	15 November 2024
Milestone 3: RAP (2 months – considering holiday period)	15 November 2024	15 January 2025

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 and milestones are completed on time and within budget.

The ARO will:

- Provide optimised remediation options accounting for coastal processes and the effects of climate change that consider a broad range of social, environmental and economic criteria.
- Incorporate stakeholders' feedback on remediation options where possible.
- Provide concept designs for engineered structures.
- Provide concept-level cost estimates of remedial options.
- Provide details on the repurposing strategy.
- Be prepared by a SQEP in accordance with CLMG#1 and CLMG#5.

- Be supported by an independent technical review.

The RAP will:

- Be prepared by a SQEP in accordance with CLMG#1 and CLMG#5
- Provides clear but detailed design and controls for the implementation of the remediation strategy.
- Be supported by an independent technical review.

SECTION 4: Site information

8 What are the details of the Site? <i>See page 25 of the guide for information on how to complete this question.</i>	
Site address	123 Victoria Road, 9012 Saint Clair, Dunedin
Legal description(s) of Site	Section 15 Block XII Dunedin & East Taieri SD
Description of site location and setting	<p>The Kettle Park Landfill is located along the Saint Clair-Saint Kilda coastal embayment south of the low-lying section of Dunedin city referred to as "South Dunedin". The landfill covers a distance of 1km alongshore (between 137 Victoria Road and the extremity of Kettle Park Road) and ~0.12km from the dune toe landward. The dune system at Saint Clair - Saint Kilda not only encapsulates the contaminated material, but it also acts as a buffer, reducing the high energy waves generated in the southern Tasman Sea and subsequently lowering the risk of coastal inundation for the South Dunedin area. The dune system is currently narrowing down and squeezing between the ocean and the present landfill under the effects of erosion, leaving only ~ 4 meters (horizontally) of sand between the dune face and the contaminated material. The following key sensitive receptors have been identified in this area:</p> <ul style="list-style-type: none"> - The Saint Clair Saint Kilda beach - The adjacent nearshore area, including the proposed Ōrau marine reserve. - Marine Wildlife - People through airborne asbestos
Current use of Site <i>include how water and land on the Site are used</i>	The Site is presently used as community facilities and sports grounds
When did the current landowner/occupier purchase the Site?	The Dunedin City Council inherited the Kettle Park site following the amalgamation of the local governments in 1989.

9 Is the Site in an area that has cultural significance or natural, ecological, scientific or recreational value? <i>If yes, provide details below (maximum 200 words). See page 25 of the guide for examples.</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<ul style="list-style-type: none"> • Cultural significance <p>There is an archaeological site (I44/121) identified and inspected at 8 Beach St and 24 The Esplanade (16/08/2017), which most likely extends northeast into the adjacent undeveloped section. It was found to contain an intact oven, midden with moa bone, artifacts, and charcoal.</p> <p>Te Tai o Arai Te Uru (the name for the Otago coastline) is a Kāi Tahu Statutory Acknowledgement area, and implicit in this is that it has a particular cultural, spiritual, historical and traditional association to Kāi Tahu.</p> <p>Within section 5.8.3 of the Kāi Tahu ki Otago Natural Resource Management Plan 2005, the following coastal environment objectives are relevant to mana whenua values and aspirations for the area:</p> <ol style="list-style-type: none"> I. The spiritual and cultural significance of taku tai moana me te wai Māori (coastline and freshwater) 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. <ul style="list-style-type: none"> • Ecological significance <p>The Department of Conservation announced the implementation of a marine reserve in the nearshore area adjacent to the Kettle Park landfill, taking effect in 2024.</p>		

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 Kettle Park historical landfill is located landward of the St Clair-St Kilda beach dune system. Waste was placed within the landfill from around 1900 to the early 1950s, with the landfill capped in the 1960s and developed into sports fields that remain today.</p> <p>Investigations^[3,4] completed on behalf of DCC indicate that more than 250,000 m³ of landfill waste/contaminated soil may be present within and behind the dune system. The landfill materials include gas works waste and construction/demolition waste (including asbestos).</p> <p>Contaminants (for example, metal and heavy metals, total petroleum hydrocarbons, polycyclic aromatic hydrocarbon compounds and asbestos) within the landfill material were present at elevated concentrations that exceeded human health standards and/or environmental standards (e.g. sediment quality).</p>
<p>When did contamination of the Site occur?</p> <p><i>provide accurate dates</i></p>	<p>Approximate time at which landfill activities started: shortly after 1900. End of landfill activities at Kettle Park: Early 1950's</p> <p>This information was gathered from historical aerial imagery^[4].</p>
<p>Potential risk to human health</p> <p><i>provide details</i></p>	<p>The reported concentration of asbestos, heavy metal and total petroleum hydrocarbons found in the landfill material exceeded human health standards.</p>
<p>Potential risk to Environment</p> <p><i>provide details</i></p>	<p>The concentration of metals found in the impacted beach sand level under the landfill exceeded the sediment quality guidelines.</p>
<p>What activities caused the contamination?</p>	<p>Disposal of gasworks, construction and organic waste</p>
<p>Are these activities ongoing?</p> <p><i>if yes, are they subject to any controls (eg, discharge consent)?</i></p>	<p>No</p>
<p>Has any action been undertaken to investigate or remediate the Site?</p> <p><i>if yes, provide details</i></p>	<p>Yes, detailed studies on the content and extent of the landfill (See references in section 9, question 38)</p>

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.*

- The remediation will reduce the risk of contaminant discharge in the coastal Environment, and therefore reducing the risk for humans, flora, and fauna to be exposed to contaminant concentrations exceeding human and environmental standards.
- The Site will be remediated to be more environmentally sustainable. The remediation will provide space to develop a healthy dune system providing habitat for coastal species.
- The site remediation will provide a more efficient strategy to manage the coastline. The space provided by the remediation will allow the dunes to buffer storm waves more efficiently, reducing the risk of coastal inundation.
- The remediation will facilitate the beach access and the ongoing use of the beach by the public.
- The remediation will contribute to preserving the nearshore Environment for marine species and subsequently to the success of the Ōrau marine reserve.

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.

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 the Site? Yes No

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
A7 Gasworks, including the manufacture of gas from coal or oil feedstocks	1900	1950
A17 Storage tanks or drums for fuel, chemicals or liquid waste	1900	1950
G5 Waste disposal to land (excluding where biosolids have been used as soil conditioner)	1900	1950
E1 Asbestos products manufacture or disposal, including sites with buildings containing asbestos products known to be in a deteriorated condition	1900	1950
C1 Explosive or ordinance production, maintenance, dismantling, disposal, bulk storage or re-packaging	1942	1947
C2 Gun clubs or rifle ranges, including clay target clubs that use lead munitions outdoors	1942	1947
C3 Training areas set aside exclusively or primarily for the detonation of explosive ammunition	1942	1947

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	The Detailed Site Investigation ^[2,3,4] has identified concentrations of Contaminants (for example, heavy metals, total petroleum hydrocarbons, polycyclic aromatic hydrocarbon compounds and asbestos) within the landfill material exceeding human health standards and/or environmental standards (e.g. sediment quality).	<input checked="" type="checkbox"/> surface water <input checked="" type="checkbox"/> groundwater <input checked="" type="checkbox"/> direct contact exposure
Toxicity of chemicals of concern	Heavy metals and asbestos are both considered toxic to humans. Some heavy metals may bioaccumulate in the food chain.	<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	A preliminary coastal erosion hazards assessment at this Site estimated the total volume of waste material at risk of being exposed to coastal erosion ranging between 47,860m ³ (in 10 to 20 years) and 176,320 m ³ (in 100 years) under the Site’s erosion potential for a mid to high range sea level rise scenario.	<input checked="" type="checkbox"/> surface water <input checked="" type="checkbox"/> groundwater <input type="checkbox"/> direct contact exposure
Mobility of chemicals of concern	Coastal erosion has created a direct release of material at the face of landfill ^[1,2,4] . It is also possible that groundwater can circulate through the impacted sand layer ^[3] underneath the landfill under the effects of tides.	<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	Contaminated material is actively being released into the Environment through ongoing erosion along the coastal edge. The dune gradient is near critical in terms of dune stability. Thus, erosion following large storm events will likely result in substantial quantities of landfill discharge in the coastal Environment. A ‘capping layer’ of topsoil and lower-level contaminated soil is present over the majority of the landfill area.	
Thickness and nature of low permeability layer	The average thickness of the capping layer has been estimated at 1.25m East of Moana Rua Road and 0.4 m west of Moana Rua Road. The capping material is predominantly composed of silt/silty clay with sand, gravel and/or cobbles with minor traces of waste material (brick, ash coal, coke, glass, shell and concrete)	
Soil type (permeability)	The top layer of the landfill is composed of “clean” windblown sand reaching a maximum thickness of 0.45m. Under the windblown sand, the topsoil layer is composed of brown silty sand or sand silt ranging between 0.05 to 0.3m in thickness.	

Distance to user	<p>Immediate to beach and marine environment with capping material sporadically exposed in the dune face and discharged on the beach post erosion events. The horizontal distance between the landfill material and the dune face is estimated to be 4 m. The beach is used by the public for a range of activities such as walking, swimming, gathering seafood and surfing.</p> <p>The vertical distance between the sport fields above the Landfill and the landfill material is estimated to reach 2m. The sport fields are used by the public for sports but</p>
Depth to hazard	Dependent on the presence/thickness of capping and topsoil layer.
Type of aquifer present	Confined or unconfined aquifer
Direct/sediment run-off and flood potential	An impacted sand layer underneath the landfill indicates a possible subsurface discharge through the landfill, possibly onto the beach, depending on the tidal intrusion within the impacted sediment layer. During periods of active erosion, predominantly occurring in winter, direct discharge in the coastal Environment has been observed.
Groundwater layer/coastal water	Although the structure of the groundwater table underneath Kettle Park remains undefined, it is possible that contaminant material in the impacted sand layer can be mobilised by tidal intrusion as a GNS borehole adjacent to the contaminated Site registers a tidal signal.

SECTION 6: Partnerships

15 Has appropriate due diligence been completed on the current landowner/occupier?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
The Site is owned by the DCC. The council passed a motion in December 2023 to implement short-term risk mitigation solutions while developing long-term remediation options (the focus of this application) for the Kettle Park Landfill.		

16 Is the current landowner/occupier willing to contribute financially to the remediation?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
As mentioned above, the DCC is willing to provide cash contributions and staff in kind for this project.		

17 Is the current landowner/occupier willing to support the remediation in other ways?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Yes, the DCC is willing to support community engagement and community-led actions.		

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

What do your partner organisations bring to the project? Complete the table below (maximum 40 words per row).

If your application is successful we may contact the person to discuss the project.

See page 28 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.*

Name of individual/organisation	Details of involvement	Contact person	Position	Phone number and email
Otago Regional Council	Project management and MfE reporting responsibilities	Joon Van Der Linde	Principal Compliance Specialist	Joon.vanderlinde@orc.govt.nz 9(2)(a) [REDACTED]
Dunedin City Council	Project management, project reporting and coastal processes expert	Raphael Krier-Mariani	Coastal Specialist	Raphael.krier-mariani@dcc.govt.nz 9(2)(a) [REDACTED]
Aukaha	Cultural advisor	Alex Gorrie	Kaipūkaha (Engineer) - Mana Taiao	9(2)(a) [REDACTED]
Tonkin and Taylor	Technical advisor	Paul Walker	Principal Consultant, Contaminated Sites	9(2)(a) [REDACTED] 9(2)(a) [REDACTED]

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 <i>List the stakeholders that are included in this project</i>	Details <i>Give a brief description about their involvement and how your project will support and strengthen the partnerships between the stakeholders</i>
Mana Whenua	Aukaha will represent Mana Whenua for this project. Aukaha will provide cultural support during the project, ensuring an alignment with Mana Whenua's cultural values. The project will provide the chance for Mana Whenua to provide input on the remediation designs and strategy where possible.
The Department of Conservation (DOC)	The project team will engage with the Department of Conservation to provide a chance to provide input on the ecological viability of the remediation strategy and the repurposing of the area post-remediation for local coastal species (e.g. provide space to create habitat for local species). The project will account for DOC's input to ensure optimal outcomes in terms of the project's ecological impact.

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.

20 What are the milestones for phase two of your project (site investigation)?

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

Clearly outline **up to a maximum of six milestones** for phase two, 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 pages 30 to 34 of the guide for information on how to complete this question.

Milestone	Description	Estimated cash cost (B) (\$)	Total estimated cost (A) excluding GST
1			\$
2			\$
3			\$
4			\$
5			\$
6			\$
Estimated total cash cost for phase two (A)			\$ 0

NOT APPLICABLE

21 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).

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

See page 35 of the guide for information on how to complete this question.

Milestone	Description	Estimated timeframe	Total estimated cost (A) <i>excluding GST</i>
1	Preparation of ARO and ROR	2 months	\$50,000
2	Preparation of a RAP	2 months	\$50,000
Estimated total cash cost for phase three (A)			\$ 100,000

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

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

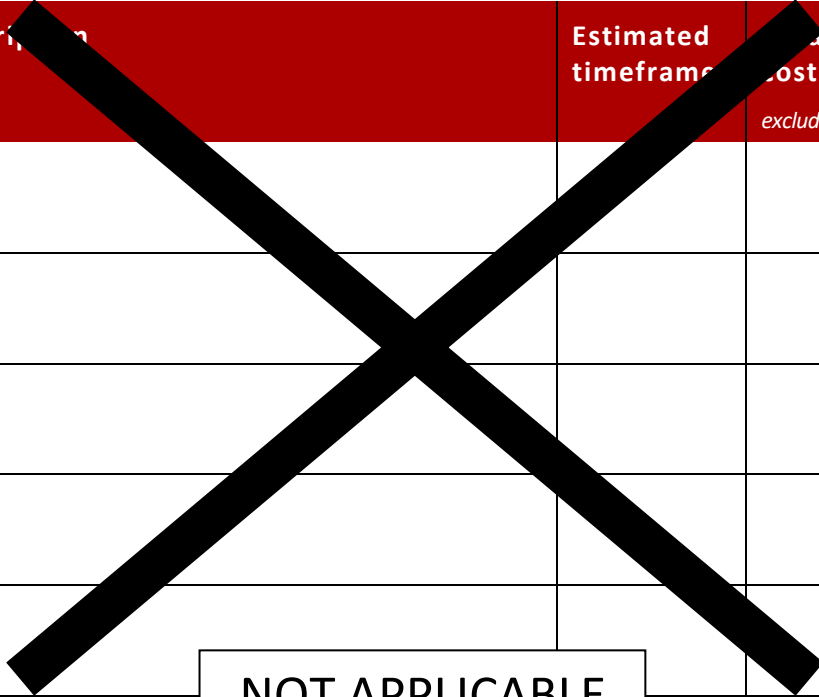
*Clearly outline **up to a maximum of six** milestones for phase four, including the tasks that make up each milestone (maximum 100 words per milestone).*

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>
1			\$
2			\$
3			\$
4			\$
5			\$
6			\$
Estimated total cash cost for phase four (A)			\$ 0



NOT APPLICABLE

23 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		N/A
		<input type="checkbox"/> Pending <input type="checkbox"/> Confirmed		N/A		N/A
		<input type="checkbox"/> Pending <input type="checkbox"/> Confirmed		\$		\$
<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>				N/A		N/A
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).

The key parties interested in the project are the local governments submitting the present application. No other sources of funding have been identified for this project.

24 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>	Otago Regional Council staff time for MfE liaison and reporting and joined project management- 9(2)(b)(ii) (excluding GST) + Dunedin City Council staff time for technical support and reporting is 9(2)(b)(ii) (excluding GST)		9(2)(b)(ii)	
Use/donation of equipment <i>Calculate equipment and other charges using the actual hourly rate</i>			N/A	
Facilities provided	N/A		N/A	
Community volunteers <i>Calculate at a rate of \$30 per hour</i>	N/A – To be considered later for stage 4		N/A	
Other			N/A	
Total in-kind contributions (F)			\$13,150	

25 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>		\$116,000 (includes 16% contingency)	
Your cash contribution to the project (B) <i>The amount your council is contributing to the project</i>		\$58,000	
Other external cash funding sources, including partners (C) <i>Totals for any other funding you have secured</i>		N/A	
Funding sought from CSRF (D)		\$58,000	
CSRF share of costs (E) <i>Funding sought from CSRF (D) x 100 and divided by estimated project cost (A)</i>		50%	
In-kind contributions (F) <i>Totals for any in-kind contributions you have secured</i>		\$13,150	

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) $G = A + F$		\$ 129,150	
Estimated overall costs for project (H) <i>This total is a sum of all project phases in the row above</i>	\$ 129,150		

SECTION 8: Project management

26 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.

A Project working group is proposed based on the estimated project cost and site specific project planning requirements (see project group structure below)

27 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
DCC Project Sponsor	Scott McLean (ELT)	9(2)(a)	Scott.MacLean@dcc.govt.nz	Oversee the project and facilitate the exchange of information between the council, the ELT and the working group.	5 hours
ORC Project Executive	General Manager Regulatory - Jo Gilroy	9(2)(a)	Joanna.Gilroy@orc.govt.nz	Executive oversight of project from ORC.	3 hours

Working Party Group

Facilitator/ Project Manager/Technical Adviser	Raphael (DCC)	9(2)(a)	Raphael.krier-Mariani@dcc.govt.nz	Manage the project, ensuring that the suppliers provide desired outcomes within the required timeframes and quality level. Manage contracts with suppliers. Facilitate the exchange of information between the project sponsor and the suppliers.	37 hours
Joint Project manager	Joon van der Linde (ORC)	9(2)(a)	Joon.vanderLinde@orc.govt.nz	Manage the project, ensuring that the project's outcomes align with the RMA and that the ARO and RAP will meet consent requirements.	15 hours
Technical Advisor (T+T)	Paul Walker (Supporting team)	9(2)(a)	9(2)(a)	Soul supplier delivering the technical project components (ARO and RAP).	40 hours (supporting team: 100 hours)
Aukaha Project team member	Alex Gorrie	9(2)(a)	9(2)(a)	Mana whenua representative, ensuring that the project aligns with mana whenua's values	15 hours

Aukaha Project team member	Michael Bathgate	9(2)(a)	9(2)(a)	Mana whenua representative, ensuring that the project aligns with mana whenua's values	3 hours
Administrator	Ollie Patu (ORC)	9(2)(a)	Ollie.Patu@orc.govt.nz	Provide administrative support to the project team meetings.	5 hours
Administrator	Daphne Sue (DCC)	9(2)(a)	Daphne.Sue@dcc.govt.nz	Manage invoice payments	1 hour
Communications advisor	Andrea Crawford DCC)	9(2)(a)	Andrea.Crawford@dcc.govt.nz	Provide support on community engagement strategy.	7 hours

28 What is your risk management plan?

Complete the risk management table below by providing information about the top five risks that your project faces.

See page 41 of the guide for information on how to complete this question.

	Risk 1	Risk 2	Risk 3	Risk 4	Risk 5
Potential risk <i>Identify the potential risk to your project</i>	Large volume of contaminant discharge into the Environment following a strong erosion event.	Rejection of the options presented in the ARO by the community.	Funding cuts.	COVID-19 impacts project team and commencement	
Strategy to mitigate <i>Describe the process that you will use to minimise and manage the risk</i>	To mitigate the eminent risk of contaminant discharge in the coastal Environment following erosion events, the Dunedin City Council has secured \$5M of emergency funds to implement temporary coastal structures with an estimated lifespan of five years. The structures will be operational by the end of July 2024.	<p>The community engagement strategy will be developed in parallel with the ARO to have a clear and efficient strategy upon reception of the ARO.</p> <p>The engagement strategy will include the public, internal/external stakeholders and mana whenua.</p>	The DCC project manager will ensure that sufficient funding is available for the project in the relevant financial year. The project is currently supported by the ELT and the council. To ensure that both ELT and the council carry on supporting the update, The DCC project manager will provide regular updates to the ELT through	Follow all COVID-19 procedures and restrictions. Plan for the time when the situation will improve. Potential to provide employment to those impacted by COVID-19 in terms of job stability	

			the DCC project sponsor who is part of the ELT.		
Level of risk occurring <i>Select from the drop down box</i>	High	Medium	Medium	Medium - High	
Impact on project <i>Select from the drop down box</i>	Major	Moderate	Moderate -Low	Moderate	
Consequences <i>Describe the consequences the risk would have on the project (eg, misunderstandings, duplication of work, incomplete work)</i>	Potentially delaying the project due to the mobilisation of funds toward emergency work.	The public could reject the most environmentally efficient remediation option. However, the ARO should provide several options to choose from.	Although it is unlikely that the council will present opposition to actions aiming at mitigating the risk of landfill exposure, a prioritisation and funding strategy change could arise if the city's critical infrastructures are compromised in other areas.	Potentially delaying the project. If key team members are unavailable, the reassignment of new team members will be required.	

29 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.

30 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.

31 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.

32 Who will be responsible for the health and safety plan and/or policy? **Not Applicable**

See page 42 of the guide for further information.

Name of person

Name

NOT APPLICABLE

Project role

Not Applicable since this is a desktop exercise

33 Will the health and safety plan and/or procedure be audited and/or reviewed?

Yes No

If yes, provide details of who will undertake the audit/review, 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
N/A		

34 Identify the five most significant hazards with the project – Not Applicable as the work does not involve fieldwork

See page 42 of the guide for further information.

No.	Hazard	Proposed impact	Management
1	N/A		
2			
3			
4			
5			

NOT APPLICABLE

35 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 <i>Who is your target audience (eg, landowners, local community, central government)?</i>	Type of report <i>Provide the name of the report</i>	Purpose <i>What is the purpose of your reporting plan and what do you hope to achieve (eg, develop awareness, impart information, deliver education, bring about behaviour change, etc)?</i>	Timing <i>How often will the report be distributed?</i>
MfE, Project Working Party Group	Project Status Report	Provide progress against the project plan (time, cost, quality, risks, issues and changes)	Quarterly
Community groups and stakeholders	Communications Plan	Develop key messages to inform the public of the process	As required
MfE, Project Working Party Group	Monthly meetings during the Project – Agenda and minutes of meeting.	Inform the working party group of the progress made during the last month	Monthly – within 5 days of month end.
Project working party	Finance report	Ensure that the project is operating within the budget	Quarterly

36 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 <i>eg, final report</i>	Acceptance criteria <i>eg, report needs to comply with the Ministry's Contaminated Land Management Guidelines for reporting on contaminated land</i>	Person responsible <i>eg, project manager</i>	Due date
Assessment of Remedial Options (ARO) / Remediation Options Report	DCC ,DOC, ORC and MFE approval. Meet CLMG1 requirements, including changes or amendments from Draft Report	Project Manager & consultant	15 September 2024
Remedial Action Plan	The RAP needs to comply with the Ministry for the Environment. 2021. Contaminated Land Management Guidelines No 1: Reporting on contaminated sites in New Zealand (Revised 2021).	Project Manager & consultant	15 January 2025

SECTION 9: Additional information

37 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, eg, 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.

Considering that the Kettle Park landfill is located in a coastal area highly exposed to storms, the present project must account for coastal processes driving the erosion of this Site. The assessment of erosion risk accounting for the full range of coastal processes is presently underway (as part of the Saint Clair Saint Kilda coastal plan work program) and will be delivered by the end of July 2024. This timeframe is reflected in the delivery timeframe of the ARO and RAP. Although these delivery timeframes can be considered as long for a vulnerable site, the thorough development of remediation options around coastal processes will ensure that the best remediation strategy is implemented at this Site.

Furthermore, this project should start as soon as possible to allow enough time for the local council to review, approve and implement the remediation strategy.

Collectively, due to the complexity of the environmental assessment required to develop robust ARO and RAP, and the processing time necessary for the council to approve and implement the preferred remediation strategy, the project should start as soon as possible. A prompt start will ensure that the remediation options will be implemented before the emergency structures implemented by the DCC to reduce the risk of contaminant discharge start failing (estimated lifespan of 5 years).

38 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

^[1] Initial investigation of exposed material in the dune face (Tonkin and Taylor, 2011)

^[2] Analysis of exposed material in relation to human health and environmental standards (Tonkin and Taylor, 2019)

^[3] Investigation of the content and extent of the landfill landward of the dune system (Tonkin and Taylor, 2023)

^[4] Investigation of the content and extent of landfill material within the dune system (Tonkin and Taylor, 2023)

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	Richard Saunders	
Position	CEO	
Signature		Date 28 March 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 – Only sections relevant to phase 3
- Declaration signed and dated

The following supporting documentation attached:

- cost benefit analysis (if undertaken) – Not undertaken
- high-level project schedule for the phase(s) covered in this project
- phase one desktop study (This is incorporated in the documents to read in conjunction)
- risk screening report (Not applicable – The application is for phase 3, desktop study)
- 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.