



Waste Minimisation Fund

Application Form for Project Funding

May 2018

For office use only	
WMF application number	WMF-XXX
Applicant name	
Project name	
Total cost of project	\$0.00
Amount requested from WMF	\$0.00

Introduction

This application form is for project proposals to the 2018 May funding round of the Ministry for the Environment's Waste Minimisation Fund (WMF). We strongly recommend that you read the *Waste Minimisation Fund Guide for Applicants* before completing this form. Please read the Waste Minimisation Fund Guide for Applicants (the guide) before completing this application form.

Please complete this form electronically and submit it by email. Move between fields by using the mouse, or pressing the ↑ and ↓ keys on your keyboard. Use text only; do not enter images, tables or graphs into the form.

If you need help to complete the WMF application form, refer to the guide in the first instance. For any further information, email wmf@mfe.govt.nz, or call 0800 499 700.

All applications must be completed using this application form.

When your application is complete

Completed application forms (including all supporting information) must be received by the Ministry for the Environment by **midday, Monday 14 May 2018**. 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.

Email your completed application form and supporting documentation (as required) to wmfapplication@mfe.govt.nz (with 'WMF application' and your organisation name in the subject line). Please note that we will only accept **one email per application** – documents submitted as multiple emails will not be accepted.

Official Information Act 1982

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 or 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 which 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. If an OIA request relating to your application is received, the Ministry will endeavour to contact you to discuss it, and what the implications of releasing your information are.

The grounds for withholding information 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.

Privacy Act 1993

Important: The Ministry for the Environment (Environment House, 23 Kate Sheppard Place, Thorndon, Wellington) may collect, use, hold or disclose personal information for the purpose of assessing eligibility and suitability for Waste Minimisation Fund funding. Individuals have the right in accordance with the Privacy Act 1993 to request access to and correction of their personal information. While the provision of personal information is not mandatory, failure to provide requested information could lead to a delay in considering the application or a decline of the same.

Eligibility criteria

Applications to the Waste Minimisation Fund must meet the eligibility criteria below. The following self-assessment checklist is based on the fund criteria, as notified under the *New Zealand Gazette*. Since notifying the criteria in the *New Zealand Gazette*, other funding streams may have been disestablished or subject to organisational changes, for example the Foundation for Research, Science and Technology is now part of the Ministry of Business, Innovation and Employment.

Applicants must be able to answer 'yes' for each of the criteria below. If you cannot meet these criteria you are not eligible to apply to the Waste Minimisation Fund.

Self-assessment checklist

Does your project meet the following criteria?		Yes / No
1	Only waste minimisation projects are eligible for funding. Projects must promote or achieve waste minimisation. Waste minimisation covers the reduction of waste and the reuse, recycling and recovery of waste and diverted material. The scope of the fund includes educational projects that promote waste minimisation activity and projects that address litter.	Yes
2	Projects must result in new waste minimisation activity, either by implementing new initiatives or a significant expansion in the scope or coverage of existing activities.	Yes
3	Funding is not for the ongoing financial support of existing activities, nor is it for the running costs of the existing activities of organisations, individuals, councils or firms.	Yes
4	Projects should be for a discrete timeframe of up to three years, after which the project objectives will have been achieved and, where appropriate, the initiative will become self-funding.	Yes
5	Funding can be for operational or capital expenditure required to undertake a project.	Yes
6	For projects where alternative, more suitable, Government funding streams are available (such as the Contaminated Sites Remediation Fund, or research funding from the Foundation for Research, Science and Technology), applicants should apply to these funding sources before applying to the Waste Minimisation Fund.	Yes
7	The applicant must be a legal entity.	Yes
8	The fund will not cover the entire cost of the project. Applicants will need part funding from other sources.	Yes
9	The minimum grant for feasibility studies will be \$10,000. The minimum grant for other projects will be \$50,000.	Yes

SECTION A: Applicant details

See pages 13 and 14 of the Guide for Applicants for information on how to complete this section.

1. Organisation details

Organisation's legal name <i>one name only</i>	The New Zealand King Salmon Co. Limited
Trading name (if different)	New Zealand King Salmon
Description of your organisation	Producer of King Salmon – vertically integrated Aquaculture company
Physical address <i>include post code</i>	93 Beatty St, Nelson, 7011
Postal address <i>include post code</i>	PO Box 1180, Nelson, 7040
Telephone	03 548 5714
Website address	www.kingsalmon.co.nz
GST number <i>Enter 'N/A' if you are not GST registered.</i>	48-456-669

Legal entity status <i>select one only</i>	<input type="checkbox"/> Incorporated society <input type="checkbox"/> Charitable trust <input type="checkbox"/> Limited partnership <input type="checkbox"/> Māori trust board
<i>(You will be required to provide a certificate of incorporation if you are invited to Stage II of the funding process)</i>	<input checked="" type="checkbox"/> Limited liability or cooperative company <input type="checkbox"/> Territorial authority <input type="checkbox"/> Other <i>please specify</i>
<p>If you are applying on behalf of a territorial authority, please explain why this project:</p> <ul style="list-style-type: none"> is not funded out of your council's baseline funding does not fall under your council's core responsibilities is not funded out of levy money received under section 31 of the Waste Minimisation Act 2008. 	

2. Contact details for this application

Primary contact name	[REDACTED]	Backup contact name	[REDACTED]
Organisation	New Zealand King Salmon Co Ltd (NZKS)	Organisation	New Zealand King Salmon Co Ltd (NZKS)
Role or job title	[REDACTED] Innovations	Role or job title	[REDACTED]
Phone	03 548 5714 <i>Landline</i> [REDACTED] <i>Mobile</i>	Phone	03 548 5714 <i>Landline</i> [REDACTED] <i>Mobile</i>
Email address	[REDACTED] [REDACTED]	Email address	[REDACTED]
Physical address	93 Beatty St, Nelson, 7011	Physical address	93 Beatty St, Nelson, 7011

SECTION B: Project details

See pages 15 and 16 of the Guide for Applicants for information on how to complete this section.

3. Details of project

Project name	Salmon Waste Streams - Feasibility Study
<p>Project description</p> <p><i>This should be a short and succinct description of the problem, solution and outcome your project will achieve.</i></p> <p><i>You will have the opportunity to expand on this description later in the application form. (approximately 100 words)</i></p>	<p>New Zealand King Salmon is committed to reducing waste from aquaculture and processing operations. This feasibility study will look at two waste streams that are not currently utilised with the objective of identifying products and processes to turn these items from waste into viable and useful products.</p> <p>The first stream is mortalities from the sea farms. Mortalities are salmon that have died outside of harvest and are unable to be used for processing. Most of these salmon go to landfill.</p> <p>The second stream is a new initiative to capture salmon faeces from low flow farm sites to stop it settling on the sea floor. A project is underway to achieve this and will result in approximately 2,000 tons of material with no identified use.</p> <p>Our objective is to carry out focused research into viable commercial options to add value to these two waste streams and remove them from landfill disposal.</p>
<p>How will your project accelerate New Zealand's transition to a circular economy?</p> <p><i>if applicable</i></p>	<p>By focusing on options, such as compost, that will return nutrients to the soil that were previously wasted in landfills NZKS will be directly influencing the transition to a circular economy. In addition, research will be undertaken to explore what high value, innovative products can be extracted from these waste streams. NZKS is in a unique position as a vertically integrated company (being both the manufacturer and the supplier) to make the transition with measurable outcomes.</p>
<p>Project location</p> <p><i>For example, Hawke's Bay, Auckland, Canterbury, Nationwide.</i></p>	<p>Nelson & Marlborough – The mortalities and faeces will come directly from our sea farms in the Marlborough Sounds.</p>

<p>Are you aware of any similar waste minimisation activities in your region?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><i>If yes, give details of the existing activity. Funding is not available for projects that displace existing activity.</i></p>
<p>Project type</p> <p><i>tick one project type that most closely fits your project</i></p>	<p><input checked="" type="checkbox"/> Feasibility or investigative <input type="checkbox"/> Infrastructure <input type="checkbox"/> Services</p> <p><input type="checkbox"/> Education and awareness <input type="checkbox"/> Other <i>Please specify</i></p>

How many years are you seeking funding for? <i>One, two or three years</i>	Two
Total project cost <i>What is the cash cost (exclusive of GST) of your project, including WMF funding, external funding, and your organisation's contribution?</i>	\$292,436.00
WMF contribution <i>How much funding (exclusive of GST) are you requesting from the WMF?</i>	\$116,974.00
<p>If you are applying for a total WMF contribution of \$200,000 or more over the duration of your project, you must submit a business plan in support of your application. The business plan must be submitted as one document only. Your application will not be assessed without this information.</p> <p>If you are applying for a total WMF contribution of less than \$200,000 over the duration of your project, it is optional to submit a business plan in support of your application.</p> <p>The business plan may include (but is not limited to) the following:</p> <ul style="list-style-type: none"> • Background information about the organisation <i>(including age and history of the company, information about directors and shareholders, staffing levels etc)</i> • Background information on your proposal • Feasibility of your proposal <i>(including details of any feasibility studies undertaken, technical expertise required and critical success factors)</i> • Financial summary <i>(estimated budgets, what the funding will be used for, how much money is required to start the project and keep it running once it is established)</i> • Market analysis <i>(including current and forecast supplier and end-user markets)</i> • Risk management strategy <i>(risks to the successful delivery of the project and how these will be managed/mitigated)</i> <p>Please provide only one supporting document in pdf format for this section (5 MB file size limit). Only one document for this section will be provided to the assessment panel.</p>	

SECTION C: Project outline

See pages 17, 18 and 19 of the Guide to Applicants for information on how to complete this section.

4. What is the problem that you plan to address with the project?

Describe the nature and extent of the problem. Where applicable, include information on the harm or risk of harm that this problem creates, current waste quantities, and how the waste is managed, including method of disposal.

Approximately 1000 tonnes of salmon mortalities are disposed of in the Blenheim landfill every year. Salmon mortalities occur due to a range of factors (mainly temperature related). Mortalities are collected daily and transported via road from Picton and Havelock through to the landfill in Blenheim. Due to the organic nature of the product, breakdown of the fish occurs rapidly resulting in odour issues during storage, transport and disposal, especially during warm temperatures. Salmon mortalities occur across the year with peaks during Dec – Feb. Prior to 2015, mortalities were sent for rendering* into fish meal in the North Island via ferry and road transport. This disposal method ceased due to odour and spill issues and the variable quality of this material. We see that disposing of mortalities via landfill is not an appropriate solution due to environmental impacts (emissions), loss of potential valuable resource and cost. NZKS actively works to reduce the volume of mortalities in our farms however it is an expected part of any population and we will always need a solution to manage this waste stream.

The second waste stream this project will address is salmon faeces at our low flow sites which fall to the sea floor and can impact on the natural nitrogen cycle. We manage our discharge within consented limits and nitrogen that is released from salmon farms into the water column is rapidly assimilated, transported and transformed through the marine food chain and nitrogen cycle. A separate NZKS project is researching and developing a Waste Capture System to capture the faeces and reduce the impact on low flow sites. An outcome from this project will be approximately 2000 tonnes of salmon faeces that will require disposal. There is currently no alternative uses for this material and it would therefore end up in landfill, unless a commercial alternative method is identified. Due to the odour of this product, transportation and acceptance at landfill would likely become an issue.

With current disposal options for both mortalities and faeces limited to landfill, there is a significant risk to the company. If NZKS is locked out of landfill, our disposal options are very limited. Due to the organic nature of the waste generated, there is a risk that continued landfilling will not meet with community approval and therefore will no longer be an option. This could create an environmental and social risk if we were unable to continue to dispose of the mortalities via landfill, especially during the peak summer season.

These two waste streams do not represent a significant environmental harm or risk in the way they are currently managed, however this linear approach to producing and disposing of a natural product is not sustainable. NZKS wants to move away from 'managing waste' to focus on 'adding value' long term to waste streams from our industry that previously had unrealised value. NZKS recognises that significant effort and costs are associated with these two waste streams and that there is potential to capitalise on a rich organic resource that has taken time and effort to produce.

These waste streams represent an issue experienced in both the aquaculture and fisheries sectors globally. Currently there are few options for the utilisation of mortalities. Rendering has been used previously but due to the variable quality of the mortalities, only a limited volume of fish is suitable for this process. Poor quality salmon input can taint the oil and meal output and lower the value of both products. Rendering is also a high energy, high water consumption process and we do not see this as a long term viable option for mortalities disposal.

Waste capture on salmon farms is almost unheard of, very few have attempted this and NZKS do not currently capture the faeces. As a result, there has not been sufficient research done on this material and no viable alternative solution currently exists.

*Rendering is a process that breaks down fish material using heat to make meal and oil.

5. What is your proposed solution?

How will your project address the problem, including specific actions? Where appropriate, include next steps after completion of the project.

This project will address the problem by investigating and reporting on options as to how to manage these waste streams long term, focussing on environmentally friendly, innovative and value-added solutions.

One of the actions taken will be to trial two composting methods using salmon mortalities and salmon faeces. The first method will be with an established local Nelson wholesale compost manufacturer utilising an open (static/windrow) method. A 10,000 litre, 6-month trial will determine the duration, cost and carbon needs to produce a salmon compost. The result will be a compost product that will be used for market research. The second method will be utilising an 'in-vessel' compost machine to determine the above needs also. There are two NZ based options of in-vessel composters that have been considered - [REDACTED]

There are significantly different time frames with each composting method as well as different long-term costs associated with each. The purpose of running two trials will be to determine the risks, benefits, costs and impacts to be able to make an informed decision regarding an appropriate method of composting for NZKS.

Once the trial has concluded and samples of compost are available, market research with the trial product will commence. Concurrently, an in-depth market assessment will determine the marketability and likely success of a consumer branded retail product for sales in NZ. Commercial use into agriculture and viticulture channels will be explored as large volumes can be used in these industries.

Whilst compost is a solution that will help address the high volume associated with peak summer mortalities, it is also important to investigate innovative, high value products/components that can be extracted from the salmon, such as oil, proteins and methyl esters. An in-depth literature review would be conducted to understand current products developed from salmon waste worldwide, with a view to assessing what NZKS could adopt and implement for waste utilisation.

Part of this project will be continued engagement with other primary producers in the Marlborough region. There are many advantages to collaboration, especially when investigating compost options. Initial research has considered utilising green waste, grape marc and forestry by-products as compost inputs to be used alongside the salmon waste. A collaboration amongst multiple parties would have even larger benefit overall.

The next step, after the completion of the project, will be to implement the chosen solution with approval from the NZKS Senior Leadership Team and the Board of Directors.

6. Project objectives

Please provide between two and six concrete statements which describe the tangible results your project will achieve. Objectives must be achievable within the duration of the WMF funding.

Objective	How will you monitor and evaluate the achievement of this objective?	Baseline information
<p><i>Objectives must be SMART (Specific, Measurable, Achievable, and Realistic within the Timeframe of the project)</i></p> <p>1. Assess the value of salmon mortalities as an input for compost by making a trial compost product. This will be done by analysing the nutrient profile (assessing the water, sodium and nitrogen component) of the mortalities and balancing this with a carbon input. Two composting methods will then be trialled including integrating with locally sourced inputs over the next 24 months. This will result in a salmon based compost product available for consumer trials.</p> <p>The outcome of the trial will form part of an overall report to allow NZKS to make an informed decision on how to manage this waste stream long term.</p> <p>This will be done in conjunction with objective 2 (see below)</p>	<p>Progress will be measured through the completion of the below items:</p> <ol style="list-style-type: none"> 1. Through laboratory testing of salmon mortalities and producing a test result report. 2. Engagement with industry experts on results – Experts include: salmon health, aquaculture, composting experts, soil scientists and end users. This will result in recommendations on how to manage the mortalities in an ensilaged* and as whole form as input for compost. 3. Partnership with compost manufacturers to produce trial versions of a compost product. Methods of manufacture would be in-vessel & open method. 4. Analysis of compost as an effective growing media through lab testing (assessing C:N ratio will be one part), customer feedback and trials. <p>Through the Project Management framework at NZKS, there will be regular reporting and tracking of results from the</p>	<p>Salmon mortalities are removed from our farms, transported to Picton and moved via road to the landfill at Bluegums in Blenheim. 1000 tonnes of mortalities are available per year with peaks over the summer months. No previous trials or research has been done to thoroughly understand the viability of composting salmon mortalities by NZKS.</p> <p>Historically fish has been used as an input for compost with successful results and there are bulk fish based compost products on the market in NZ today. Due to the oil and moisture content in salmon, there is a need to understand the best method of composting this product. Composting ensilaged fish has not been done using either method in NZ based on current research.</p>

	<p>project. Evaluation of the results, compared to the objectives, will form part of the project reporting.</p> <p>*ensilaging is a process to enzymatically breakdown whole fish into a semi-soluble form through the addition of acid</p>	
<p>2. Assess the nutrient value of <u>salmon faeces</u> as an input for compost by making a trial compost product. This will be done by analysing the nutrient profile (the composition of the faeces) and its suitability as a compost material and balancing this with a carbon input. Two composting methods will be trialled including integrating with locally sourced inputs over the next 24 months. This will result in a salmon based compost product available for consumer trials.</p> <p>The outcome of the trial will form part of an overall report to allow NZKS to make an informed decision on how to manage this waste stream long term.</p> <p>This will be done in conjunction with objective 1. (see above)</p>	<p>Progress will be measured through the completion of the below items:</p> <ol style="list-style-type: none"> 1. Testing of faeces (appropriate sample size etc, different farms) and producing laboratory reports. 2. Engagement with industry experts on results – Experts include: salmon health, aquaculture, composting experts, soil scientists and end users. This will result in recommendations on how to stabilise the product and manage the high salt content in the faeces. 3. Partnership with compost manufacturers to produce trial versions of compost product. Methods of manufacture would be in-vessel & open method. 4. Analysis of compost as an effective growing media through lab testing, customer feedback and trials. <p>Through the Project Management framework at NZKS, there will be regular reporting and tracking of results from the project. Evaluation of the results, compared to the objectives, will form part of the project reporting.</p>	<p>There are approximately 2000 tonnes of salmon faeces that can be utilised. This is based on current feed conversion and a focus on low flow farms (salmon farms where the water current is low resulting in an accumulation of faeces under the farm). The compost trials will access a portion of this waste.</p> <p>Due to the farms being in sea water, there is a high salt content similar to sea water (appx 3.5%) that will need to be addressed before composting, either through drying, dilution or another method of extraction.</p> <p>Although this waste stream is not currently disposed of in landfill, this will occur once the Waste Capture System is deployed if an alternative use is not found. This will occur over the next 12 months.</p> <p>Note: NZKS is currently in consultation with the Ministry of Fisheries regarding the relocation of up to six farms. The farms being targeted for relocation are low flow farms.</p>
<p>3a. Produce a consumer market analysis report identifying need/want for salmon based bagged or bulk compost through consumer & customer focus groups/trials.</p>	<p>Progress will be measured through the completion of the below items:</p> <ol style="list-style-type: none"> 1. Run focus groups with potential customers assessing the need and acceptability of a salmon compost. 	<p>Initial investigations suggest there is a space in the retail bagged compost market for a salmon based product. Fish compost is perceived to have 'value' as an effective growing media by end users and part of this project will be to quantify this.</p>

<p>The outcome will determine if we have viable product from the consumers perspective.</p> <p>3b. Develop a compost brand, distribution solutions and marketing plan options through re-seller research and current market analysis over the next 24 months.</p> <p>This report will allow NZKS to make an informed decision on how best to proceed.</p>	<ol style="list-style-type: none"> 2. Provide consumers with trial product to gain feedback on compost as an effective growing media. 3. Develop a marketing plan based on the outcome of the above two points including a market access strategy. 4. Propose distribution solutions dependent on where the compost is made and the format it is distributed in (bulk or bagged). 5. Meet with potential re-sellers who could stock the product and understand likelihood of a future agreement. <p>Through the Project Management framework at NZKS, there will be regular reporting and tracking of results from the project. Evaluation of the results, compared to the objectives, will form part of the project reporting.</p>	
<p>4. Assess the commercial value of known properties i.e. Proteins, oils, amino acids and methyl esters from salmon mortalities for application in the animal or human food chain as well as energy and other agricultural options. This will be done through a scientific literature review, assessment of global applications resulting a business case of viable options for NZKS.</p> <p>This research will allow NZKS to make an informed decision on how best to proceed.</p>	<p>Progress will be measured through the completion of the below items:</p> <ol style="list-style-type: none"> 1. Literature research into global aquaculture salmon industry and identified uses for mortalities with a summary report produced. 2. Engagement with science provider to conduct literature review and short report on properties of salmon mortalities. 3. Review with consultant to advance areas of opportunity identified in point 2. 4. Bench top or small-scale extraction trials if/where appropriate based on the outcome of point 3. 5. Market scoping on potential options to commercialise. <p>Through the Project Management framework at NZKS, there will be regular reporting and tracking of results from the</p>	<p>Globally there is increasing interest in salmon protein as aid in muscle recovery as an alternative to whey based protein powders. In addition, there are industrial applications for oil that can be explored further.</p> <p>Preliminary desktop research of international uses for salmon mortalities indicates the following uses are generally accepted: composting, biogas and fertilizer production. Further research is needed into more established European salmon producers.</p> <p>Disposal methods and end use options for fish mortalities varies by region and is dependent on the waste classification system of the country.</p>

	<p>project. Evaluation of the results, compared to the objectives, will form part of the project reporting.</p>	
<p>5. Establish partnerships for collaboration and look at a regional solution for other waste streams currently being underutilised. This will include Aquaculture, Forestry, Agriculture & Viticulture.</p>	<p>Progress will be measured through the completion of the below items:</p> <ol style="list-style-type: none"> 1. Communicate our intentions through existing relationships with Nelson & Marlborough primary producers 2. Approach local producers to establish new relationships 3. Partner with the above producers for product trials <p>Through the Project Management framework at NZKS, there will be regular reporting and tracking of results from the project. Evaluation of the results, compared to the objectives, will form part of the project reporting.</p>	<p>NZKS recognises the opportunity to collaborate with other primary producers in the Nelson / Marlborough region focussing on grape marc, green waste, forestry waste, aquaculture waste and other food waste.</p>

7. Project key tasks/activities

List the main tasks/activities that will be undertaken in the delivery of your project in chronological order. The achievements of these tasks and activities will be a primary measure for evaluating the project's success.

Project tasks/activities – Year 1	Project tasks/activities – Year 2 <i>(if applicable)</i>	Project tasks/activities – Year 3 <i>(if applicable)</i>
<ul style="list-style-type: none"> Nutrient analysis of NZKS salmon faeces Nutrient Analysis of salmon mortalities (whole and ensilaged form) Collaboration with local primary producers Compost trial of salmon mortalities (whole and ensilaged form) & faeces using open composting method Compost trial of salmon mortalities (whole and ensilaged) & faeces using in vessel composting method Market Research including focus groups and trials of compost by consumers Early stage consumer brand development activity for compost brands Literature Review & further international research of mortality uses followed by recommendations into viable options 	<ul style="list-style-type: none"> Commercialisation options for high value nutrient extracted from salmon including bench top / small scale trials Further branding and market distribution research dependent on trials and customer feedback Recommendation to NZKS Senior Leadership Team and Board on next steps Approval to proceed with chosen solution or solutions 	<ul style="list-style-type: none">

8. What waste stream will your project address?

Please select one waste stream only. If there is not a primary waste stream that your project will address, please indicate as 'other' and specify the multiple waste streams.

1 <input type="checkbox"/> PCBs (polychlorinated biphenyls)	15 <input type="checkbox"/> Tyres
2 <input type="checkbox"/> Timber (treated and non-treated – not readily able to separate)	16 <input type="checkbox"/> E-waste
3 <input type="checkbox"/> Primary sector related hazardous waste <i>(for example, tannery, wool scouring, factory wastes)</i>	17 <input type="checkbox"/> Nappies and sanitary
4 <input type="checkbox"/> Manufacturing and services sector hazardous waste <i>(for example, aluminium processing waste)</i>	18 <input type="checkbox"/> Commercial green waste
5 <input type="checkbox"/> Agrichemicals (including containers)	19 <input type="checkbox"/> Packaging – household and commercial <i>(for example, plastics, glass, cans, polystyrene)</i>
6 <input type="checkbox"/> Medical waste (excluding veterinary waste)	20 <input type="checkbox"/> Demolition materials – inert <i>(for example, concrete, steel, roading materials)</i>
7 <input type="checkbox"/> Asbestos	21 <input type="checkbox"/> Paper and cardboard (household and commercial)
8 <input type="checkbox"/> Contaminated soil	22 <input type="checkbox"/> Plasterboard
9 <input type="checkbox"/> Oil	23 <input type="checkbox"/> Construction materials (for example, PVC, insulation, metal works, glass)
10 <input type="checkbox"/> Refrigerants	24 <input type="checkbox"/> Cleanfill
11 <input type="checkbox"/> Biosolids	25 <input type="checkbox"/> Furniture
12 <input checked="" type="checkbox"/> Primary sector related organic waste	26 <input type="checkbox"/> Textiles
13 <input type="checkbox"/> Household organic (food waste and green waste)	27 <input type="checkbox"/> Litter
14 <input type="checkbox"/> Paint	28 <input type="checkbox"/> Other
	Please Specify:

9. How much waste does your project propose to reduce, reuse, recycle or recover?

Do not double count tonnages. Please note, some projects may not divert waste (eg, feasibility studies). Enter N/A if this is the case.

	Baseline <i>How much waste are you currently diverting from landfill (per annum), if any?</i>	Forecast after project completion <i>Estimated diversion from landfill in the first year after project completion</i>
Reduce <i>To lessen the generation of waste, including by using products more efficiently, or by redesigning products. For a product, this includes lessening the generation of waste.</i>	NA tonnes	NA tonnes
Reuse <i>To use waste or diverted material (in its existing form) further, for the original purpose of the materials or products that constitute the waste or diverted material, or for a similar purpose.</i>	NA tonnes	NA tonnes
Recycle <i>To reprocess waste or diverted material to produce new materials.</i>	NA tonnes	NA tonnes
Recover <i>To extract materials or energy from waste or diverted material, for further use or processing (includes making compost).</i>	NA tonnes	NA tonnes
Total	NA tonnes <i>per year currently</i>	NA tonnes <i>per year after completion</i>

Please describe the source of tonnage data detailed above. If you are unable to provide tonnage figures for your project then please explain why.

NA

Please describe how you will measure the amount of waste your project will minimise:

NA

10. What are the specific benefits that your project will deliver?

Please outline the economic, environmental, social and/or cultural benefits that will result from the completion of your project.

This project will deliver economic, environmental and social benefits.

Economic benefits of this project will be realised through making informed decision on how to manage these waste streams long term based on trials and research. By conducting a feasibility study the likelihood of success is increased and it can be proven that the concepts are both technically feasible as well as economically justifiable.

Environmental benefits will occur when a chosen solution or solutions is operationalised. The benefit will be diverting waste streams from landfill into value -added products that could be integrated back into the soil to provide a nutrient rich growing media (in the case of compost).

NZKS has committed to the UN sustainable development goals with a relevant goal for this project being Goal 12 - 'Responsible Consumption and Production'. Undertaking this project demonstrates to the wider community that NZKS are proactively committed to reduce waste and continue to be environmentally sustainable across every part of the business. By creating new 'value-added' products there is the potential to demonstrate social benefits through the creation of additional investment into either infrastructure and/or job creation in the future. This would occur once a suitable solution has been chosen and operationalised.

11. How will you ensure the solution you are proposing endures, once WMF funding has ended?

Please describe how the project will continue after the funding ends (ie, how will the project become self-sustaining?, how will the benefits continue once your project is completed?).

The outcome of this project will result in a series of viable options for NZKS to consider and then commercialise. At the completion of this feasibility study, the findings will be presented to the Senior Leadership Team of NZKS and the Board of Directors of NZKS, in order to make an informed decision on the best option to progress to commercialisation. A project team will be formed in NZKS to implement the chosen option. NZKS is committed to managing these waste streams long term.

SECTION D: Funding summary

See pages 20 to 23 of the Guide to Applicants for information on how to complete this section.

12. Outline project budget

Complete the table below with details of your estimated project costs (all costs should be GST exclusive). Project costs should reflect the tasks and activities set out in question 7. **The total amount for all years should be equal to the 'total project cost' provided in question 3.**

If applicants do not attach a business plan it is highly recommended they provide at least a detailed budget as a supporting document.

Project cost category	Total estimated cost – Year 1	Total estimated cost – Year 2 <i>If applicable</i>	Total estimated cost – Year 3 <i>If applicable</i>
Personnel	\$99,840.00	\$49,920.00	\$0.00
Consultants and contractors	\$48,000.00	\$60,000.00	\$0.00
Administration	\$0.00	\$0.00	\$0.00
Purchase of capital assets and other capital costs	\$0.00	\$0.00	\$0.00
Venue and equipment	\$0.00	\$0.00	\$0.00
Travel and accommodation	\$2,326.00	\$0.00	\$0.00
Promotion and dissemination of information	\$0.00	\$0.00	\$0.00
Financial, legal and information technology (IT) expenses	\$0.00	\$0.00	\$0.00
Health and safety	\$0.00	\$0.00	\$0.00
Other miscellaneous costs	\$32,350.00	\$0.00	\$0.00
Estimated TOTAL project cost for each year	\$182,517.00	\$109,920.00	\$0.00
Estimated total project cost <i>Add the totals of each column – this must equal the 'total project cost' provided in question 3)</i>	\$292,436.00		

13. Funding sources

Complete the table below (all figures should be GST exclusive). The total from all funding sources MUST equal the estimated Project Costs in question 12. Only include funding that you have applied for, and is either approved or still pending (ie, not declined).

Organisation details

If you have secured further funding from more than four organisation(s), provide the amount in the contribution to project column to the right. Provide information about the organisation's name, contact details, status of offer, and dates in a separate document, and submit this as supporting information with your application.

	Contribution to project – Year 1	Contribution to project – Year 2 If applicable	Contribution to project – Year 3 If applicable
Cash contribution from your organisation	\$109,510.00	\$65,952.00	\$0.00
External funding source 1 <i>Name and contact details: NA</i>	\$0.00	\$0.00	\$0.00
External funding source 2 <i>Name and contact details: NA</i>	\$0.00	\$0.00	\$0.00
External funding source 3 <i>Name and contact details: NA</i>	\$0.00	\$0.00	\$0.00
External funding source 4 <i>Name and contact details: NA</i>	\$0.00	\$0.00	\$0.00
Amount requested from the WMF	\$73,006.00	\$43,968.00	\$0.00
TOTAL funding from all sources for each year	\$109,510.00	\$65,952.00	\$0.00
Total of all funding sources <i>Add the totals of each column – this must equal the 'total project cost' provided in question 12</i>	\$292,436.00		

If any of the funding for your project is not yet confirmed, please provide a summary here of how much is 'pending' and when you expect this to be secured.

N/A

SECTION E: Capability

See pages 24 and 25 of the Guide to Applicants for information on how to complete this section.

14. Project manager details

The project manager is the person responsible for managing major project tasks/activities, and is likely to be the person who liaises with the Ministry if the project is funded.

Complete the table below, if you have already nominated a project manager. If you have not appointed a project manager yet, what skills and experience will they be required to have?

Name	[REDACTED]
Organisation	NZKS
Role or job title	Project Manager
Email address	[REDACTED]
Phone	03 548 5714 Landline [REDACTED] Mobile
Skills and experience (relevant to the successful delivery of this project)	4+ years experience in delivering a variety of projects. Proficient in managing Risk, Project Planning, Communication and Project Leadership. Approximately 16 hrs per week will be allocated to this project. Remaining hours will be spent on other NZKS projects. NZKS has a history of delivering successful projects and is well established to ensure support and direction of the project is maintained. The Project Owner will be [REDACTED]

15. Governance and management structure

Project governance

Include information about how your project will be governed. Include how the governance group will monitor and manage any slippage on project progress.







NZKS Project Management Structure will be followed for the management and delivery of this project. NZKS has a newly established Project Management Office which is responsible for providing best practice project management structure to project teams across the business.

The project will be set up with a Project Owner, Project Manager and Project Team. The project will be established with a unique project code to enable accurate reporting of time and costs. Projects are managed through a 'stage gate' process where approval from the NZKS Senior Leadership Team is required at each stage. Weekly reporting through 'Project Status Reports' and monthly reviews will be mandatory requirements. Reporting criteria includes: tracking to baseline (time), risk management, issue capture, budget / expense tracking and resource management. The monthly review meeting to the governance team (the Senior Leadership Team) enables any escalated issues to be addressed promptly and strategic direction provided if required. Any slippage on progress will be addressed and managed at these meetings.

	All projects have a final review gate which includes assessing proposed outcome vs actual outcome, financial management (to budget) and adherence to project management methodology.
<p>Managing funds</p> <p><i>Provide information about how you will manage the project funds if successful. Include information about how you will procure goods and services, approve payments, and monitor and address budget overspend.</i></p>	<p>NZKS, as part of normal business operations, has a full financial support function that will manage all ingoing and outgoing expenses for this project. The NZKS finance team will manage the funds in conjunction with the Project Owner and Project Manager. Cost and resources time will be tracked through the project management software.</p> <p>Services will be procured through existing relationships with preferred service providers where appropriate. For example, science service providers such as Cawthron Institute and Massey University will be used. A key element to engaging services providers will be to ensure quotes for work are obtained and there are agreements in place for the scope of work. Payments would be approved once services have been provided to an agreed standard. Budgets will be tracked monthly as part of the project review meeting and any budget overspend as part of this project will be managed by NZKS.</p>

16. Partnership and collaboration

Provide details of organisations that you will be partnering with in the **delivery** of this project (this may include territorial authorities). Please provide a letter from each of the project partners outlining the nature of their involvement and what they will contribute to the successful delivery of the project.

Organisation name	Contact person <i>Name, phone number and email</i>	Details of involvement
Marlborough Research Centre	<p> <i>Name</i></p> <p> <i>Phone</i></p> <p> <i>Email</i></p>	Liasion and advisor for local primary producers as well as science liasion
Marlborough District Council	<p> <i>Name</i></p> <p> <i>Phone</i></p> <p> <i>Email</i></p>	MDC point of contact, solid waste expert, guidance on compliance and regulatory needs for long term solutions
	<p><i>Name</i></p> <p><i>Phone</i></p> <p><i>Email</i></p>	
	<i>Name</i>	

	<i>Phone</i> <i>Email</i>	
	<i>Name</i> <i>Phone</i> <i>Email</i>	

[Illegible text]

17. Publicly-funded projects

In the past 5 years, have you received funding from the Ministry for the Environment (or other organisations)?

Yes No

If yes, please complete the table below for each project you have received funding for.

Name of fund	Contact person Name, phone number and email	Amount received	Details of project
Ministry for Primary Industries - Sustainable Farming Fund - Grant no. 13/003	[Redacted] Name [Redacted] Phone [Redacted] Email	\$599,982.76	Reducing malformations in King Salmon, contracted to Massey University Objective was to diagnose spinal deformities, measure incidence and look at causes. Grant was to Salmon Improvement Group which included: NZKS, Massey, NIWA, Skretting and Sanford. Nutrition trials resulted in diet being developed that reduced deformities. This is now being tested in commercial pens
Seafood Innovation Ltd - 2 projects. Information for the second project is under 'Details of project' 2.	[Redacted] GM Name [Redacted] Phone [Redacted] Email	\$2,604,020.00	1. Salmon Diet Research Project Objectives to understand and develop ideal diet for King Salmon species. Project is ongoing. Project is a partnership with SIL, Cawthron, NMIT & BioMar 2. Sediment Removal & reduce following times - NZKS and other seafood companies - stage 1 and stage 2 Feasibility and semi-commercialisation of seabed remediation activity to accelerate sea-bed recovery Invoice to date is \$9K
Callaghan Innovations - Student Fellowship Grant - PHD, R&D Research	[Redacted] Name [Redacted] Phone info@callaghaninnovation.co.nz Email	\$35,000.00	Contract ID NZKSC1401 Investigation of the causes of spinal curvature in farmed New Zealand King Salmon Total amount of grant: \$90,999.75 to Student, NZKS amount received - \$35,000

Ministry for Business Innovation and Employment - Bioresource Processing Alliance	██████████ <i>Name</i> ██████████ <i>Phone</i> ████████████████████ ████████████████████ ██████████ <i>Email</i>	\$15,000.00	Project: Omega Plus Pet Food Range Objectives: - Achieve AAFCO certification - Undertake palatability work on cats using the dry and wet foods - Obtain a full nutritional analysis of the products. Project was successful with all objectives achieved.
	<i>Name</i> <i>Phone</i> <i>Email</i>	\$	

18. Health and safety

It is important that you have the necessary health and safety policies, resources and expertise to safely undertake and complete the project. You will be asked to submit a health and safety plan if you are invited to proceed to Stage II

<p>Does your organisation have a health and safety policy?</p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>If Yes, please state when this was last reviewed/updated.</i></p> <p>04/04/2017 to be reviewed 04/04/2019</p>
<p>Has your organisation been issued with any notices under the Health and Safety in Employment Act 1992? <i>(or any replacement to this Act)</i></p>	<p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>If Yes, please provide details.</i></p> <p>An improvement notice report was issued from WorkSafe NZ in 2014. File number [REDACTED] The notice addressed guarding requirements and the need for pinch points identification on machinery. All issues were resolved in 2014.</p>
<p>Who will be responsible for health and safety for the project?</p>	<p>[REDACTED]</p>

19. Environmental compliance

<p>Do you require any statutory permissions to complete the project? <i>For example, resource management, building, planning, Basel or other consents)?</i></p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>If yes, which permission(s) are required? Have you applied for these? If so, when is a decision expected (if known)?</p>
<p>Has your organisation received any infringement or abatement notices or been subject to any prosecutions under the Resource Management Act 1991 during the past 5 years?</p>	<p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p><i>If Yes, please provide details.</i></p>

SECTION F: Additional information

See page 26 of the Guide to Applicants for information on how to complete this section.

20. 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, for example support for your project (eg, from territorial authorities). You must include any known conflicts of interest (actual or potential) and any action taken to manage these conflicts.

NZKS operates a division, Omega Innovations, that was established in 2015 to focus on utilisation of by-products and waste reduction. In 2016 this division successfully launched a retail pet food brand, Omega Plus, that utilises by-product from our processing facility. Over the next two years there is committed focus on managing our waste streams and utilising the by-products from our processing facilities. Omega Innovations now employees 4 full time staff dedicated to waste and by-product utilisation. Funding of this project by the WMF will enable NZKS to do an in-depth feasibility project to ensure that any waste stream utilisation from our sea farming operations projects have the highest possible chance of success. It's expected that the learnings from this feasibility project will be shared with the wider aquaculture and primary sector communities to promote the transition to a circular economy across New Zealand.

21. Referees

The referees specified below will be contacted as part of the due diligence and reference checks undertaken if the application is invited to Stage II of the WMF funding process.

First referee name <i>External referee for the person who will have the overall responsibility for delivering this project</i>	[REDACTED]	Second referee name <i>External referee for the organisation. This person must have worked with your organisation before</i>	[REDACTED]
Organisation	[REDACTED]	Organisation	[REDACTED]
Role or job title	[REDACTED]	Role or job title	[REDACTED]
Phone n/a Landline [REDACTED] Mobile		Phone n/a Landline [REDACTED] Mobile	
Email address	[REDACTED]	Email address	[REDACTED]
Physical address	n/a	Physical address	n/a

Declaration

This declaration must be completed by a person with the organisation's signing authority. See the guide for additional information on how to complete this question.

Important: Please contact the Ministry if you have any queries about the terms and conditions of the Deed of Funding for the Waste Minimisation Fund.

As a duly authorised representative of the organisation as per Section A of this Waste Minimisation Fund application form:

- I declare that my project meets all of the eligibility criteria for the Waste Minimisation Fund (*see page 3 of the application form*)
- 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 the application is not being made by an organisation that is in receivership or liquidation, or by an undischarged bankrupt.
- I declare that I have provided information relating to any actual or potential conflicts of interest (in question 20) and that I will promptly inform the Ministry for the Environment of any such conflicts if they arise subsequent to the submission of this application.
- 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, other legislation, court orders and in response to Parliamentary questions.
- I understand my rights in accordance with the Privacy Act 1993
- I agree that the Ministry for the Environment may collect information including but not limited to credit checks, criminal record checks and reference checks about our organisation from other parties, (including but not limited to the referees named in Section F of this application), and may liaise with local and national organisations in respect of this application.
- I understand that an invitation to proceed to Stage II of the funding process is not a confirmation of funding, and that the final decision is subject to the successful completion of Stage II.

Name

Grant Rosewarne

Position

CEO and Managing Director

Signature

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

Grant Rosewarne



Date 10/05/2018