
From: Alice Bradley
Sent: Thursday, January 18, 2024 5:36 PM
To: Lorena Stephen <Lorena.Stephen@mfe.govt.nz>
Subject: Pukekohe Potential Savings

Kia ora Lorena

Please find attached my analysis of potential savings within the proposed Pukekohe investment. I note that these projects have not passed final approval by the Governance Group yet, however this is based on my expectations of approval from the process to date.

The total savings I have identified as not having a significant impact on the outcomes of the project total \$3.6m.

I note this constitutes over %7 of the \$49m MFE has been asked to save. A decent amount from one small project.

I have included the background to the programme so that the risks can be fully appreciated.

Many thanks
Alice

Alice Bradley
Principal Advisor
Partnerships and Investments
022 010 9920

Please note I do not work Fridays.

[Access to Experts • Free, expert advice on freshwater policy \(access2experts.net.nz\)](https://access2experts.net.nz)

Ministry for the Environment – Manatū Mō Te Taiao
Website: www.mfe.govt.nz
PO Box 10362, Wellington 6143



Making Aotearoa New Zealand
the most liveable place in the world
Aotearoa - he whenua mana kura mō te tangata

Pukekohe Special Vegetable Growing Area

Background

Sustainable Land Use ministers approved an EFF investment of \$10M in the Pukekohe vegetable growing area, in November 2021. The investment is to identify and support the long term water quality aspirations shared by mana whenua, vegetable growers and local government, in an area that has historically suffered from water quality degradation. Intensive vegetable growing, for the benefit of all New Zealanders, has played a major role in local water quality issues.

The investment sits alongside an exception in the NPS-FM 2020 that applies only to the vegetable growing areas of Pukekohe and Horowhenua, in recognition of their unique contribution to domestic food supply. This provision enables Councils to set targets for nitrogen-related water quality parameters that fall below national bottom lines in the two areas. An investment of comparable size is currently being implemented in the Horowhenua vegetable growing area. The exception has recently been overturned by judicial review, meaning bottom lines must now be set in the normal manner.

The EFF investment for the Pukekohe vegetable growing area has funded the co-design of an Integrated Catchment Management Plan (ICMP) by mana whenua (Ngaati Te Ata, Ngaati Tamaoho, Waikato-Tainui, and Ngaati Tiipa), growers (Pukekohe Growers Association and HortNZ) and councils (Auckland Council and Waikato Regional Council), and will support a set of priority projects within the broader action plan

Priority projects come under two long-term outcomes adopted by working group:

1. The health and well-being of the wai are protected and enhanced; and
2. The Pukekohe vegetable growing area becomes a national centre of excellence for the supply of fresh vegetables for the health and well-being of the peoples of Aotearoa/New Zealand, while nurturing a healthy environment.

This analysis considers the proposed actions and prioritises those most likely to contribute to the outcomes. A key risk with reducing the budget is that the investment of other parties in time, money and in kind has been substantial to date, and the original terms of reference for Te Tautara o Pukekohe (Iwi/Crown partnership roopuu) is embedded in Te Tiriti o Waitangi, founded on:

TINO RANGATIRATANGA

Including Iwi making meaningful decisions at all levels of decision-making within the processes detailed in this agreement.

MANA WHAKAHAERE

Including the power, authority, and obligations of taangata whenua¹ to make decisions that maintain, protect, and sustain the health and well-being of, and their relationship with, freshwater.

¹ Taangata whenua in this context means:

- 1) mana whenua having customary authority exercised by an iwi or hapuu in the area; and
- 2) iwi authority, recognised by that iwi as having authority to represent them.

Analysis

This analysis considers the respective merits of the individual projects within the different workstreams in terms of how they relate to the desired outcomes. Please note that where budget variances occur (estimated costs exceed the budget available for that workstream, savings are calculated based on budget available, not estimated costs of projects).

Total budget with estimated savings

Budgets were agreed in their respective themes.

Category	Budget	Savings
Monitoring	\$2.383 million	\$1.1m
Reducing nitrates	\$5.373 million	\$1.9m
Reducing other contaminants	\$1.044 million	\$0.6m
Communicating progress (website, database, dashboard/infographics)	\$200,000	-
TOTAL	9,000,000	\$3.6m

Detailed Breakdown

Monitoring workstream

Category	Budget
Ngaati Tamaoho: baseline monitoring using cultural indicators and cultural monitoring tool for the Pukekohe SVGA <i>and</i> Develop field trialling and training (capacity and capability building) of those who will be using the tool.	\$413,064
Ngaati Te Ata Maramataka project: Research Ngaati Te Ata maramataka to better understand Ngaati Te Ata maramataka as traditional practice and to test how maramataka has influenced vegetable growing in the Pukekohe Rohe <i>and</i> Apply lessons learnt to contemporary growing practices in the Pukekohe SVGA. Includes cultural monitoring tool development and baseline monitoring.	\$420,000
Ngaati Tiipa cultural monitoring	\$425,064
Expanding soil quality monitoring sites, to test impact of compost, cover crops and other activities to help restore the quality of soil.	\$224,000
Ngaati Te Ata: Partner with eDNA Service provider to integrate eDNA technologies into the ongoing monitoring of the WAI and Rohe of Pukekohe.	\$133,160
Monitoring strategy (which technologies/locations/frequency)	\$ 100,000
Ngaati Te Ata monitoring technologies (including AquaWatch and labour) (Ngaati Te Ata)	\$700,000
TOTAL	\$2,415,288
Budget allocation	\$2,383,000
Variance	\$32,288

Potential savings analysis:

Monitoring could be reduced to basic cultural health monitoring to complement Auckland Council SOE monitoring. The biophysical effects of interventions will not be detectable for many years, so deferring specialist monitoring for future funding opportunities is not expected to significantly impact outcomes in the short to medium term.

The key risk is the loss of opportunity and agency that this monitoring programme would have afforded iwi.

Estimated savings:

\$1.1m

Reducing nitrates

At source mitigations

Category	Budget
Crop stacking environmental performance trial (AC and HortNZ)	\$385,000
Research farm (PVGA/HortNZ/Ngaati Te Ata)	\$2,088,000
Vertical farming	\$400,000
Nitrate decision support, embedding change – PVGA	\$400,000
RDVF and EAOP (Ngaati Te Ata) *	\$1,500,000
Total	4,773,000
Budget	\$4,800,000
Variance	\$27,000

Potential savings analysis:

The key nitrate reducing projects should be prioritised, as they will advance the environmental performance of vegetable production and have resources/extension that can be leveraged by vegetable producers nationally.

Technical review/due diligence shows the RDVF / EAOP is not expected to contribute to any significant reduction of nitrate at source, or in the catchment, and the project should not be approved. The vertical farming trial also will not technically remove any nitrate from the system, unless there is a clear mechanism to transition convention vegetable production to vertical methods. This investment could be deferred or cancelled with no overall impact on the outcomes of the programme.

The risk is the Ngaati Te Ata feel unfairly disadvantaged by having this initiative removed, as it they viewed it as having commercial opportunities. However, if a business case can be produced to show it Estimated saving:

\$1.9m

Catchment-based nitrate mitigations

Category	Budget
Bioreactors*	633,650
Koi Carp*	1,355,000
Total	1,988,000
Budget	\$600,000
Variance	\$1,388,000

Potential savings analysis:

Both projects went through technical review/due diligence and there was not substantial evidence to support the likely success of the investment in mitigating nitrate. It is unlikely that removing both will have any significant impact on the overarching outcomes of the programme. The initial budget estimates were also significantly over budget in this category.

Auckland Council's internal due diligence largely ruled out the usefulness of bioreactors in the Pukekohe area. The koi carp proposal has been tried in a Waikato lake and did not produce a positive outcome.

The key risk is that Ngaati Te Ata saw the koi carp proposal as a potential commercial opportunity (producing biofertilizer), and they will perceive this as a loss of a potential revenue stream. They have tentatively agreed to scale the project back to a pest control project with an approximate value of \$200k.

Estimated savings:

\$0.6m

Other contaminants

Category	Budget
Ngaati Tamaoho Riparian Restoration and Planting project	\$262,800
Ngaati Te Ata nursery	\$282,000
Integrated Catchment Approach to Sediment Management project – Hort NZ	\$400,000
Ecological Network and Planting Strategy	\$50,000
Mangawhero noxious weed control, Ngaati Te Ata	\$50,000
TOTAL	\$1,044,800
Budget	\$1,044,000
Variance	\$0

Potential savings:

Recommend retaining these projects as some are already in progress, and they represent good value for money in terms of engaging stakeholders and securing immediate environmental benefits, even if at a small scale.

Estimated savings:

\$0m.