I hereby give notice that an ordinary meeting of the Rural Advisory Panel will be held on:

**Date:** Friday, 7 September 2018  
**Time:** 12:30pm  
**Meeting Room:** Room 1, Level 26  
**Venue:** 135 Albert Street  
Auckland

Ngā Hui a te Rōpū Kaitohutohu Take ā-Taïwhenua  
/Rural Advisory Panel

OPEN AGENDA

**MEMBERSHIP**

<table>
<thead>
<tr>
<th>Chairperson</th>
<th>Cr Bill Cashmore</th>
<th>Deputy Mayor and Franklin Ward Councillor</th>
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<tr>
<td>Deputy Chairperson</td>
<td>Cr Greg Sayers</td>
<td>Rodney Ward Councillor</td>
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<td>Members</td>
<td>Marie Appleton</td>
<td>Rural Women NZ</td>
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<td></td>
<td>Alan Cole</td>
<td>Franklin Local Board Member</td>
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<td>Trish Fordyce</td>
<td>NZ Forest Owners Association</td>
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<td></td>
<td>Richard Gardner</td>
<td>Federated Farmers</td>
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<td>Neil Henderson</td>
<td>Waitakere Ranges Local Board Member</td>
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<td>Vance Hodgson</td>
<td>Horticulture NZ</td>
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<td>Steve Levet</td>
<td>Rural Contractors NZ</td>
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<td>Andrew Maclean</td>
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<td>Greg McCracken</td>
<td>Fonterra</td>
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<td>Andrew McKenzie</td>
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<td>Helen Moodie</td>
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<td>Leeann Morgan</td>
<td>Young Farmers</td>
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<td>Roger Parton</td>
<td>Rural Contractors NZ and Aggregate &amp; Quarry Association</td>
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<td>Geoff Smith</td>
<td>Equine Industry</td>
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<td>Peter Spencer</td>
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<td>Brenda Steele</td>
<td>Rodney Local Board Member</td>
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<td>Bronwen Turner</td>
<td>Western Rural Property Owners</td>
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<td>Keith Vallabh</td>
<td>Pukekohe Vegetable Growers Association</td>
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<td>Glenn Wilcox</td>
<td>Independent Māori Statutory Board Member</td>
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(Quorum 10 members)

Suad Allie  
Governance Advisor  
3 September 2018  
Contact Telephone: (09) 977 6953  
Email Suad.Allie@aucklandcouncil.govt.nz  
Website: www.aucklandcouncil.govt.nz

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**Note:** The reports contained within this agenda are for consideration and should not be construed as Council policy unless and until adopted. Should Members require further information relating to any reports, please contact the relevant manager, Chairperson or Deputy Chairperson.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>TABLE OF CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Apologies</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Declaration of Interest</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Confirmation of Minutes</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Extraordinary Business</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Chair's Update</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>Auckland Ballance Farm Environment Award 2018</td>
<td>9</td>
</tr>
<tr>
<td>7</td>
<td>New Zealand's Food Story - the Pukekohe Hub</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>Discharges from Cultivated Land Project</td>
<td>33</td>
</tr>
<tr>
<td>9</td>
<td>Presentation by Fonterra Ltd.</td>
<td>41</td>
</tr>
<tr>
<td>10</td>
<td>Consideration of Extraordinary Items</td>
<td></td>
</tr>
</tbody>
</table>

Rural Advisory Panel
07 September 2018

Auckland Council
1 Apologies

An apology from Member G Smith has been received.

2 Declaration of Interest

Members are reminded of the need to be vigilant to stand aside from decision making when a conflict arises between their role as a member and any private or other external interest they might have.

3 Confirmation of Minutes

That the Rural Advisory Panel:

a) confirm the ordinary minutes of its meeting, held on Friday, 6 July 2018, as a true and correct record.

4 Extraordinary Business

Section 46A(7) of the Local Government Official Information and Meetings Act 1987 (as amended) states:

“An item that is not on the agenda for a meeting may be dealt with at that meeting if-

(a) The local authority by resolution so decides; and

(b) The presiding member explains at the meeting, at a time when it is open to the public,-

(i) The reason why the item is not on the agenda; and

(ii) The reason why the discussion of the item cannot be delayed until a subsequent meeting.”

Section 46A(7A) of the Local Government Official Information and Meetings Act 1987 (as amended) states:

“Where an item is not on the agenda for a meeting,-

(a) That item may be discussed at that meeting if-

(i) That item is a minor matter relating to the general business of the local authority; and

(ii) the presiding member explains at the beginning of the meeting, at a time when it is open to the public, that the item will be discussed at the meeting; but

(b) no resolution, decision or recommendation may be made in respect of that item except to refer that item to a subsequent meeting of the local authority for further discussion.”
Chair’s Update

File No.: CP2018/16362

Te take mō te pūrongo / Purpose of the report
1. Rural Advisory Panel Chair, Cr Bill Cashmore’s update to the Rural Advisory Panel.

Whakarāpopototanga matua / Executive summary
2. Cr Bill Cashmore, Chair Rural Advisory Panel will provide and update of recent Council business.

Ngā tūtohunga / Recommendation/s
That the Rural Advisory Panel:
a) note the update from Cr Bill Cashmore, Chair Rural Advisory Panel.

Ngā tāpirihanga / Attachments
There are no attachments for this report.

Ngā kaihaina / Signatories

<table>
<thead>
<tr>
<th>Author</th>
<th>Suad Allie - Governance Advisor</th>
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<tbody>
<tr>
<td>Authoriser</td>
<td>Warren Maclennan - Manager Planning - North/West</td>
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</table>
Te take mō te pūrongo / Purpose of the report
1. To congratulate the Dill family, winners of the Auckland Ballance Farm Environment Award 2018 and hear a presentation from them about their farm.

Whakarāpopototanga matua / Executive summary
2. Attached is an article from the NZ Farm Environment Trust outlining the farm operations and its challenges. There will also be a short drone film clip and presentation from the Dills at the meeting.

Ngā tūtohunga / Recommendation/s
That the Rural Advisory Panel:
   a) congratulate Bruce and Felicity, and Steve and Clare Dill for winning the 2018 Regional Supreme Award and thank them for their presentation.

Ngā tāpirihanga / Attachments

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6</td>
<td>Kaipara Flats family operation wins Auckland Ballance Farm Environment Awards</td>
<td>11</td>
</tr>
</tbody>
</table>

Ngā kaihaina / Signatories

<table>
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<th>Author</th>
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Kaipara Flats family operation wins Auckland Ballance Farm Environment Awards

5 April 2018

The Dill family from Kaipara Flats has won the 2018 Auckland Ballance Farm Environment Awards.

Family teamwork and a multi-generational attachment to the land have created a successful and sustainable farming business with many environmental highlights for the Dills at Kaipara Flats near Warkworth.

Father and son duo, Bruce and Steve Dill, are the farmers on the 488ha sheep and beef property. They are supported by Buce's wife Felicity, and Steve's wife Clare, who has an increasing involvement alongside her communications and marketing consultancy work. Their win was announced at a dinner at the Holiday Inn Auckland Airport in Mangere on Wednesday night (April 4). The family will host a field day at their Dill Road property on Tuesday May 8 from 10.30am.

Three quarters of the Dills Farms Ltd land is steep with the home farm set amid spectacular scenery looking west towards the Kaipara Harbour and includes 3.5km of the Hoteo River. The awards judges said this was both an asset and a liability with winter flooding, active erosion and sediment control, but also provided the setting for their enterprising eco-tourism venture renting a rustic farm hut combined with farm walks. Clare has launched a social media campaign with near-neighbour and friend Nicky Berger called Grass Fed in the City aiming to improve relationships between rural and urban populations.
Last year the farm wintered 1957 sheep, including 1320 Romney ewes, and 388 Hereford and Angus-cross cattle, including 138 cows. Two-year-old Hereford bulls are sold to local dairy farmers. Total stocking was 3750su or 9.35su/ha.

The original Atuanui farm at Kaipara Flats was purchased by Marcus Gordon Dill in 1889 and now fourth-generation Bruce and fifth-generation Steve are the directors of the much-enlarged Dills Farms Ltd. A neighbouring 135ha block was bought after Steve returned from working overseas.

Knowledge and understanding of the land, ecosystem, weather patterns and stock over the years is being passed on from previous generations. Knowledge of soil types and capabilities is important for the sustainable management of this farm.

Sedimentary loss to the Hoteo River is the main risk factor, managed by riparian retirement, three-wire electric fencing on flood-prone banks, and low intensity stocking policies in sensitive areas, especially over the winter months. Stock water reticulation is key, using a variety of dams, reservoirs and springs to pump to header tanks for delivery of water to troughs.

A Land and Environment Plan completed in 2008 has been progressively implemented providing a valuable input and overview of stock management, planting and fencing policies. More than 10,000 plants have been planted with 3000 last winter as part of the Forest Bridge Trust programme in the Kaipara District. These plantings aim to reduce the sediment in the Hoteo River and enhance biodiversity. The Dills have started their own nursery to build up manuka seedlings as well as poplars for the farm.

Erosion is a problem on the steep slopes and Kawa poplars have been planted around the farm to mitigate soil slip and for tomo stabilisation. Four small areas of native bush have been fenced off for some time (one since the 1940s) that contain mature native canopy species such as taraire, titoki, rimu and totara that are over 15 metres tall as well as a healthy understorey. The farm drains to the Hoteo River and the fencing and riparian planting by the Dills and adjoining landowners has made a measurable improvement in water quality, including sedimentary and nutrient run-off.

As well as the 2018 Regional Supreme Award, Dill Farms Ltd won the Ballance Agri-Nutrients Soil Management Award, Beef + Lamb New Zealand Livestock Award and CB Norwood Distributors Ltd Agri-Business Management Award.

A Kaukapakapa business combining a nursery, plant sales, coffee shop, sculpture garden and beef cattle farming – owned by David and Geraldine Bayly and Don and Margaret Bayly – won the Auckland BFPA People in
Agriculture Award, Massey University Innovation Award and Predator Free Farm Award.

A visionary farm park and dairy support block at Te Hana, north of Wellsford, owned by Ray and Pam Hollis won the Auckland Council Water Quality Enhancement Award. Awhitu dairy farmers Andrew and Liisa Hamilton won the DairyNZ Sustainability and Stewardship Award, Hill Laboratories Agri-Science Award and WaterForce Integrated Management Award.
New Zealand's Food Story - the Pukekohe Hub

File No.: CP2018/16465

Te take mō te pūrongo / Purpose of the report
1. To present a report on the Pukekohe food growing hub prepared by Deloitte for Horticulture New Zealand.

Whakarāpopototanga matua / Executive summary
2. Lucy Deverall from Horticulture NZ will give a presentation on the Pukekohe food hub report and lead a discussion on the area’s potential and its constraints.

Ngā tūtohunga / Recommendation/s
That the Rural Advisory Panel:
a) receive the report from Lucy Deverall and thank her for her presentation.

Ngā tāpirihanga / Attachments

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A0</td>
<td>New Zealand's Food Story: The Pukekohe Hub - Executive Summary</td>
<td>17</td>
</tr>
</tbody>
</table>

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</tbody>
</table>
New Zealand’s food story:
The Pukekohe hub
Prepared for Horticulture New Zealand
August 2018
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glossary</td>
<td>1</td>
</tr>
<tr>
<td>Foreword</td>
<td>3</td>
</tr>
<tr>
<td>Executive Summary</td>
<td>5</td>
</tr>
<tr>
<td>A food hub for New Zealand</td>
<td>12</td>
</tr>
<tr>
<td>Pukekohe hub in context</td>
<td>19</td>
</tr>
<tr>
<td>The value of the Pukekohe hub’s horticulture</td>
<td>25</td>
</tr>
<tr>
<td>Economic impact of constraining horticulture</td>
<td>38</td>
</tr>
<tr>
<td>production in the Pukekohe hub</td>
<td></td>
</tr>
<tr>
<td>Looking to the future</td>
<td>50</td>
</tr>
<tr>
<td>Appendix A: Input-Output analysis</td>
<td>56</td>
</tr>
<tr>
<td>Appendix B: CGE modelling</td>
<td>60</td>
</tr>
</tbody>
</table>
Glossary

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGE</td>
<td>Computable general equilibrium</td>
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<td>DAE-RGEM</td>
<td>Deloitte Access Economics regional general equilibrium model</td>
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<td>European Union</td>
</tr>
<tr>
<td>FTE</td>
<td>Full-time equivalent</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross domestic product</td>
</tr>
<tr>
<td>HortNZ</td>
<td>Horticulture New Zealand</td>
</tr>
<tr>
<td>IO</td>
<td>Input-Output</td>
</tr>
<tr>
<td>LSF</td>
<td>Living Standards Framework</td>
</tr>
<tr>
<td>LUC</td>
<td>Land Use Class</td>
</tr>
<tr>
<td>NPS</td>
<td>National Policy Statement</td>
</tr>
<tr>
<td>PVGA</td>
<td>Pukekohe Vegetable Growers Association</td>
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<tr>
<td>RSE</td>
<td>Recognised Seasonal Employer</td>
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<td>UK</td>
<td>United Kingdom</td>
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“When you live in Pukekohe you can’t really see the urban creep because it’s a bit at a time – but it’s really obvious now.” – Bharat Jivan, Jivan Produce
Foreword

Horticulture is one of the success stories of New Zealand’s primary industries. In 2017, the industry generated $5.68 billion in value. Export revenue has grown nearly 50% in five years, illustrating the trust the world places in New Zealand-grown food, and the country’s ability to meet that demand.

But the industry cannot rest. New Zealand faces opportunities with a growing population and the need to grow fresh produce. Nowhere is this more apparent than in Auckland, and its surrounding rural land. The population is set to rise to 2.3 million by 2043, straining natural resources and infrastructure. And growers are feeling that pressure. The Pukekohe growing hub straddles the Auckland and Waikato District boundaries, and it is key to sustaining the fresh food supply to the country’s largest city. The squeeze on prime growing land in the Pukekohe hub, access to water, and the tensions between the existing industry and new neighbourhoods all mean a more considered and concerted approach to planning is needed. It is the right time to start the conversation about New Zealand’s sustainable food supply with a focus on a growing area experiencing change.

Our economic analysis suggests that, over the next 25 years, the Pukekohe hub could face constrained horticulture production. If left unchecked, less production could result in lost economic value, higher prices for customers, and job losses for the industry itself and the sectors it supports.

The value the Pukekohe hub provides is not just monetary. By using the Treasury’s Living Standards Framework, we have outlined the Social, Human and Natural values that make this area special. At the same time, we have also described the constraints and issues the hub is experiencing.

The challenges to ensuring the Pukekohe hub remains a bulwark of New Zealand’s food supply are not small. Some run up against current planning and policy settings. Success requires central and local government to work with the industry to best protect and enhance this natural asset, and sustainable business models.

In undertaking the research for this report, we spoke to a range of growers, retailers and distributors, all of whom provided valuable views on the importance of the Pukekohe growing hub.

We hope our New Zealand Food Story provides you with valuable insights into the health of the industry, and furthers the conversation on the strategic importance of the country’s food security.

Andrew Gibbs
Partner
Deloitte
The Pukekohe growing hub
A national asset of opportunity

Pukekohe's hub contributes $261m to GDP

Fruit and vegetable growth in the area provides nutritional benefits and food at an affordable price

Intergenerational family-owned businesses promote a multi-cultural workforce and sense of enterprise

Yet the hub is under threat:
Auckland's population is expected to grow by 37% in the next 24 years

Population growth and changing consumer preferences mean demand for fruit and vegetables will increase

Pukekohe's rural population is expected to grow to 50,000 by 2043

Urban encroachment means productive land is being used for other purposes

When urban meets country tensions can arise (beverage sales, etc.)

Growers are struggling with the cost of debt, increasing competition for water, and ensuring labour

Some growers are diversifying into other operations and moving higher up the value chain

The right balance must be struck:

Auckland and the Waikato need to make the most of this productive land to contribute to New Zealand's food security

The tension of land use, water access and maintaining cohesive communities need to be managed

Or the hub faces an alternate future where growth is constrained, domestic food supply is diminished, and the industry loses up to $1.1 billion over the next 20 years

The four capitals of wellbeing need to be balanced for the benefit of New Zealand
Executive Summary

New Zealand’s domestic vegetable production is becoming more important. New Zealanders are fortunate to have the majority of their fresh fruit and vegetables locally grown and available for domestic consumption, spending over $1.3 billion on vegetables and approximately $970 million on fruit annually. This is set to increase further as our population expands and consumer preferences change; however, there are significant challenges that could stand in the way of increasing production to meet this growing appetite.

An increasing consumer awareness of the ability of food to advance or decline wellbeing has resulted in a clear demand shift towards consumption of products with perceived health benefits. The International Food Policy Research Institute estimates that between 2010 and 2050, the demand for fruit and vegetables will increase by 90%, and significantly exceed estimated global population growth of 30%. Closer to home, a recent survey by the Ministry of Health showed that average vegetable consumption per capita is greater than average fruit consumption.

Yet, our horticulture land is diminishing. Between 1996 and 2012 urban growth saw the size of towns and cities grow by 10%. From 2002 to 2016 the country’s vegetable-growing land reduced by 30%. Significant, and often swift, land use change in New Zealand is putting increased pressure on our growing hubs to keep up with the mounting demand for fruit and vegetables.

In this context, this report focuses on one of New Zealand’s food growing hubs, Pukekohe (‘Pukekohe hub’ or the ‘hub’). For an area accounting for only 3.8% of New Zealand’s total hectares of fruit and vegetable production, the Pukekohe hub punches far above its weight. The revenue generated by the hub’s horticulture businesses of $327 million equates to 26% of New Zealand’s total domestic value of vegetable production, and to a lesser extent of fruit.

Defining the Pukekohe growing hub

The Pukekohe hub is an area comprising 4,359 hectares of some of New Zealand’s most fertile and productive soils. The hub’s temperate, forgiving climate and proximity to essential transport routes makes it ideally located to supply year-round vegetables to our biggest – and fastest growing – region, Auckland.

For the purposes of this report, the Pukekohe hub encompasses Paerata and Patumahoe to the North, Aka Aka to the west, Pokeno to the east and borders on Onewhero and Pukekawa to the south (refer Figure 2 on page 13). Horticulture activities, referenced in this report, includes the growing and primary processing of defined produce within the hub, and also includes

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the processing of produce grown outside the hub, if the processing occurs within the hub.

Horticulture cultivation in this growing hub is largely focused on the supply of domestic fresh vegetables including potatoes, carrots, leafy greens, brassicas, tomatoes and onions. The Pukekohe hub is world famous for its Pukekohe Longkeeper onion, which is exported globally. Kiwifruit are also grown in the northwest of the hub, largely for export.

**Measuring the value of the Pukekohe hub**

The notion of measuring value through a multi-dimensional platform is gaining traction, with the Government formally making a change towards broader reporting through the Treasury’s Living Standards Framework (LSF). The LSF draws on the concept of fostering holistic wellbeing through reporting on the growth and distribution of four interdependent capitals: social; financial; human; and natural capital. Finance Minister Grant Robertson has said the Government will use Treasury’s LSF to develop the world’s first wellbeing Budget in 2019 to measure the country’s success.²

Deloitte used the four capitals of the LSF as a framework to provide a comprehensive picture of the wider value contributed – and constraints experienced – by the Pukekohe hub in each of the capitals. This report does not weight one capital more or less than another, nor does it propose trade-offs between capitals, but Deloitte do believe looking at the value of the hub through this holistic lens can assist future decision-makers.

**Figure 1 below presents a summary of the hub’s key contributors to value – and limitations to these – under each capital.**

**Figure 1: Summary of the economic, social and wider values, and constraints of the Pukekohe hub**

² Hon Grant Robertson, Budget Speech, <https://www.beehive.govt.nz/speech/budget-speech-2018>
Financial capital
The horticulture industry within the Pukekohe hub is a wealth creating industry, which makes a strong economic contribution to the hub. Deloitte has estimated the current economic contribution of the Pukekohe hub's horticulture industry to be $261 million. This relatively small growing hub, 0.01% of the Auckland region, contributes a respectable 0.3% to Auckland's economy.

This total contribution can be split into two distinct categories; direct contribution and indirect contribution of the horticulture industry:

- The hub's horticulture industry directly contributes approximately $86 million per annum, in value-added terms, to the regional economy.

- The hub's horticulture industry indirect contribution, reflecting expenditure on intermediate inputs such as agriculture support services, water, machinery, feed, fertiliser and seed, is $175 million per annum, in value-added terms.

The hub’s proximity to its main market, Auckland, and easy access to transport routes is key factor to maintaining the hub’s economic contribution. Freight makes up a significant portion of the overall cost of produce, and therefore, being close to markets is critical to preserving growers' margins.

But what about the other, less quantifiable benefits and contributions made by the Pukekohe hub? Understanding the value of the social and wider benefits of the Pukekohe hub is not as straight-forward. To support the economic quantification of value, Deloitte undertook industry consultations with a diverse mix of industry participants operating in the Pukekohe hub, including growers, distributors and retailers.

Natural capital
The land within the Pukekohe hub largely consists of volcanic, free-draining soils, which are classed as Land Use Class ("LUC") 1 and LUC 2, and are known as 'versatile' or 'elite'. LUC 1 or 2 land has a higher ability to sustain agricultural production, given its enhanced natural attributes such as soil and rock type, climate, reduced potential for erosion and taking into account past land use.

The area also benefits from a unique, moderate climate, which is generally frost-free and allows for year-round supply of certain vegetables such as leafy greens. This, and its proximity to the Auckland market, makes the Pukekohe hub a key part of the wider horticulture supply chain, providing out-of-season produce to other parts of New Zealand.

Urban encroachment has largely driven the limited availability and rising cost of prime growing land in the hub. As a result, growers are left with fewer growth and investment choices, and cropping in the Pukekohe hub has become increasingly intensive in recent years, meaning growers are forced to grow more on less land. Crop rotations are an essential management practice in horticulture but, due to these pressures, growers in the hub often find themselves taking chances and planting their prime crop more frequently, to the potential detriment of crop performance, and soil and water quality.
Social capital
The value of the Pukekohe hub’s legacy horticulture businesses to the area’s social fabric is palpable. Intergenerational employment, sustained by these longstanding businesses, contributes to the social stability of the area.

Growers in the hub are known to be generous; regularly and willingly, contributing to fundraising, local marae, sponsorship of the Blues or the Steelers, and events such as school calf club days. Growers’ deep involvement in their communities also extends to sports clubs and teams with some growers involved with the Pukekohe Indian Sports Club since the day it was established in 1945.

The importance of social cohesion and its effects on wellbeing are well-documented, and should not be underestimated. However, the rapid housing development within the Pukekohe hub, with a number of areas being designated as Special Housing Areas by the Auckland Council, has resulted in wider impacts on the local horticulture industry besides just the loss of exceedingly fertile, productive land. The intensification of urban sprawl is a concern for some growers, who feel the growth is diluting the small-town, community feel of the area, and changing the culture and social fabric of the hub.

Growers also report increasing instances of reverse sensitivities resulting in restrictions on their already established operations, such as spreading fertiliser and environmental noise. Growers feel their commitment to the community allows them the social license to operate, and goes some way to alleviate the issue of reverse sensitivities, but note that the hub would benefit from more considered planning around land use and incorporating appropriate ‘buffers’.

Human capital
The Ministry of Health recommends New Zealand adults eat at least three serves of vegetables and two of fruit each day. According to the most recent New Zealand Health Survey, 62% of all adults meet the minimum vegetable intake requirement, and 54% of all adults meet the minimum fruit intake requirement. The hub’s produce directly contributes to New Zealand’s high intake of fruit and vegetables.

The Pukekohe hub’s workforce is multicultural, reflecting the changing demographics of New Zealand, and deeply ingrained in the small, local communities around them. In 2017, the hub employed 1,458 Full-time equivalent (FTE) employees in the growing of vegetables, equivalent to 22% of the total 6,700 FTE employees in vegetable growing employment in New Zealand.

Over time, the industry has also contributed to creating vibrant and sustainable local communities and businesses, which may not have been there if not for the growing hub. Over 1,500 FTE jobs have been created in industries that provide services to the Pukekohe hub.

Despite providing significant employment opportunities, the industry is challenged with an undersupply of labour. Growers felt the lack of skilled talent coming into the industry, particularly as it is not promoted as a viable career path, was one of the biggest threats to the hub’s succession planning and future horticulture industry. As a result, growers have become increasingly more connected with education providers to develop
appropriately technical and specialised courses, and promote the industry to
those who might be academically inclined to related disciplines, including
agronomy and science.

Imagining a world where horticulture production can’t keep up

As Auckland’s population grows over the next 25 years, the Pukekohe hub’s
horticulture industry will increasingly need to compete with alternative uses
for land. Alongside land access challenges, the industry may need to
address other limitations to production, such as biosecurity risks, urban
encroachment, availability of skilled labour, and water access issues to
ensure supply keeps up with Auckland’s growing demand.

To quantify the economic impact of these challenges in the Pukekohe hub,
Deloitte compared a scenario where production can grow to meet increasing
regional demand (‘base case’) against a counterfactual scenario, where
horticulture production is constrained and unable to meet demand over the
next 25 years, (‘the counterfactual’).

As a result of constraining the production growth of Pukekohe’s horticulture
hub, consumers are expected to be worse off, as they face higher prices
and reduced quality of the produce they purchase. For example, if a lettuce
is $3.50 in 2043 under base case, then a lettuce is expected to be $5.08
under the counterfactual at the end of the period.

The loss of growth in Pukekohe’s horticulture hub will result in GDP of $850
million lower than it would otherwise would have been over the next 25
years. This loss could increase to $1.1 billion over the next 25 years if
growers are further limited in their ability to respond to production
constraints.

It is also estimated that the counterfactual will result in 3,500 fewer FTE
jobs in the Auckland region compared to base case by 2043. This could
increase to 4,500 fewer FTEs if growers are limited in their ability to
respond to production constraints.

The value of production will increase at a much slower rate in the
counterfactual than forecast under base case, such that the value of
production is expected to be within the range of 23% to 28% lower than
base case by 2043. Similarly, the volume of fruit and vegetable production
will decrease between 46% and 55%.

If the constraints on horticulture can be managed effectively over the
coming 25 years, these economic impacts, job losses and price impacts
may be lessened.

Where to from here?

The Pukekohe hub is an ecosystem that contributes widely across the four
capitals and is a significant contributor to the Auckland regional economy.
But this ecosystem is under pressure and at risk of slowly being eroded as
competing uses and demands take centre stage.

Despite the hub’s natural advantage and strategic location, its current place
as a growing region is not assured. New Zealand’s rapidly changing land
use has been dramatic enough to prompt Environment Minister David
Parker to direct officials to begin working on a National Policy Statement
Attachment A

Item 7

The Pukekohe hub | Executive Summary

('NPS') for Versatile Land and High Class Soils,¹ the purpose of which would be to provide guidance on balancing the needs of urban growth and food production.

While many industry participants interviewed held strong views on the protection of versatile land in the Pukekohe hub, with growers recognising the importance of protecting land for food production, there were varying opinions on whether or not a tool to secure prime growing was the right way to go about this. There is a strong desire to ensure that any policy tool does not limit or remove a land owner’s use and sale options, with some acknowledging the potential for policy settings to create unintended commercial outcomes.

This view was countered by others who believed that if the industry were adequately consulted in the formation of the NPS, including discussions at a local level to address unique regional aspects, the NPS could be an appropriate tool for land management.

As the future constraints to production such as labour and access to prime land start to hit home, growers have also expressed concerns over New Zealand’s lack of a domestic food security policy. Given the current global political stability and no shortage of imports, a food security policy has not been high on the agenda.

But with our unique environment and vulnerability to biosecurity risks, New Zealanders may not be in a position to import all the fresh vegetables they wish to import should domestic production be lost. An NPS on versatile land, which ensures land for primary production purposes, could be a useful first step in establishing New Zealand’s domestic food security plan and dealing with issues on reverse sensitivities.

Starting the conversation on food security

From its abundant, prime versatile land to its strategic location and place within New Zealand’s wider value chain, the Pukekohe hub could not be better designed as a growing hub. Future growth and innovation for the hub will likely be driven by increasing skilled labour into the industry, developing new cultivars, and further investment in technology and automation of packhouses, operations and farm management practices.

But with current and future challenges in horticulture production, how do New Zealanders protect and enhance what the Pukekohe hub adds to the four capitals of wellbeing? If the demand is growing, then the response from the value chain has to be productivity increases within our environmental constraints. Deloitte therefore recommends:

1. Considered planning on, and adequate tools for, land use to balance the needs of housing and horticulture.
2. Increased use of technology to manage the intensification of cropping within environmental limits.
3. Investment in the development of new varieties of produce to manage changing conditions, diseases and consumer preferences.

4. More funding and investment in horticulture education to provide for, and attract, skilled talent into the industry.

5. Sustainable margins and returns on capital by developing a more commercial, demand driven supply chain.

6. More certainty on access to resources through deliberate water allocation systems that balance household and horticulture demands.

Ultimately, this great natural system is being transformed with a resulting loss of arable land. The challenge is to persuade fellow New Zealanders that we need to consider the trade-offs being made. As Environment Minister David Parker says, "we have to ensure we have enough land to build the houses people need, but we must protect our most productive areas too."

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A food hub for New Zealand

Horticulture in New Zealand

Horticulture is one of the success stories of New Zealand’s primary industries. Horticulture New Zealand defines the horticulture sector (the ‘industry’) as all fruit and vegetables, including processed vegetables, and excluding wine, which encompasses 5,000 commercial fruit and vegetable growers. In 2017, the industry generated $5.68 billion in value, with export revenue accounting for $3.49 billion having increased by 49% over the last five years. The growing strength of horticulture exports illustrates the trust the world places in New Zealand-grown food, and our ability to meet that demand.

New Zealand’s horticulture exports are supported by a strong domestic base with domestic spend on fruit and vegetables reaching $2.24 billion in 2017. Vegetables are largely a domestic story, with most supply grown for local consumption. New Zealand’s domestic expenditure on vegetables is valued at $1.3 billion, with exports of fresh vegetables, like onions, and processed vegetables, such as frozen potato fries, contributing $614 million for the year ended June 2017.

The Pukekohe growing hub

New Zealanders are fortunate to have the majority of their fresh vegetables cultivated locally in various growing hubs dotted around the country. One of New Zealand’s key growing hubs is known as the Pukekohe hub, an area encompassing 4,359 hectares of highly efficient, productive soils, straddling the Auckland and Waikato regional boundaries.

The Pukekohe hub grows a wide variety of fruit and vegetables, including the world famous Pukekohe Longkeeper onion, which was first planted in the 1920s when local grower John Turbot crossed a Spanish brown and a Spanish straw onion. The hub’s excellent soil types and growing conditions allow for high quality produce, including its unique, early potatoes and spring carrots, to be grown almost year-round providing supply around the country.

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7 Ministry for Primary Industries, June 2018, Situation and Outlook for Primary Industries.
9 Ibid.
10 This hectares was determined by Statistics New Zealand based on the 2017 Agriculture Census data for this study.
The Pukekohe hub | A food hub for New Zealand

The hub’s close proximity to New Zealand’s largest market, Auckland, is another unique advantage. The hub’s easy and direct access to transport routes and ports make it an efficient and vital part of the horticulture supply chain for the Auckland region, and a key source of supply for Auckland’s growing population. The hub’s strategic location also has the advantage of allowing for just-in-time, same day supply of vegetables when needed.

Defining the Pukekohe hub

For the purpose of this report, Deloitte defines the Pukekohe hub as the area covering Pukekohe, Patumahoe, Mauku, Aka Aka, Puni, Te Kohanga, Onewhero, Pukekawa, Tuakau and borders on Pokeno and Paerata (refer to Figure 2).

Figure 2: The Pukekohe hub

Geographically, the Pukekohe hub is advantaged by having a generally frost-free climate and owes its rich, fertile, productive soils to a volcanic eruption in the central plateau 250,000 years ago. This soil is classified LUC 1, which means the land can be cultivated continuously, making it good for intensive cropping, and can sustain two or three crop rotations a year.

11 NZ Herald, Urban sprawl and the land that keeps on giving, <https://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11944763>
Discharges from Cultivated Land Project

File No.: CP2018/16467

Te take mō te pūrongo / Purpose of the report

1. To advise and discuss with the Rural Advisory Panel a proposed proactive report focussed on discharges from cultivated land.

Whakarāpopototanga matua / Executive summary

2. The Targeted Initiatives Team in the Regulatory Compliance Unit is proposing to carry out a proactive project aimed at reducing the discharge of sediment and associated contaminants from cultivated land into the environment, thus reducing the impacts of those discharges on the natural environment. The expected results of the project are:

- Identification of locations and extent of discharge of sediment from cultivated land
- Causes of discharges
- Adoption by all growers of methods that will minimise discharges
- Significant reduction in discharge of sediment from cultivated land and its effects on the environment, particularly waterways

3. The project team will commence by consulting with stakeholders such as the Rural Advisory Panel, Horticulture NZ and the Pukekohe Growers Association.

Ngā tūtohunga / Recommendation/s

That the Rural Advisory Panel:

a) discuss the proposed project and provide their feedback to the project team.

Horopaki / Context

4. Council has been involved in dealing with sediment discharge from cultivated land for many years. The former Auckland Regional Council, and the Natural Resources and Specialist Input Unit in the Resource Consent Department of Auckland Council have had teams responsible for compliance in the rural sector. Amongst other work, they dealt with sediment discharge from cultivated land.

5. It is essential that work to reduce the amounts of sediment entering waterways as a result of uncontrolled cultivated land is continued. Sediment has a direct impact on waterways and organisms living in these environments. It physically smothers aquatic life, damages fish gills and mouthparts, increases temperature and turbidity (cloudiness of the water) and prevents light penetrating the water, all of which significantly alter fish habitats. Sediment also transports other pollutants such as agricultural nutrients into streams.

Tātaritanga me ngā tohutohu / Analysis and advice

6. The Targeted Initiatives Team in Auckland Council’s Regulatory Compliance Unit has become aware that there are potentially significant problems with sediment discharges from cultivated land, examples of which are shown in the attached memorandum from Morphum Environmental Ltd.

7. The aim of this project is to reduce the discharge of sediment and associated contaminants from cultivated land into the environment, thus reducing the impacts of those discharges on the natural environment.
The project will include:

- Assessment of the extent of the issue of sediment discharge from cultivated land throughout the Auckland region
- Identification of steps taken to date to address the issue
- Liaising with stakeholders such as the Rural Advisory Panel, Horticulture NZ and the Pukekohe Vegetable Growers Association
- Where necessary, carrying out education of growers
- Where necessary carrying out enforcement actions.

Ngā whakaaweawe ā-rohe me ngā tirohanga a te poari ā-rohe / Local impacts and local board views
8. To be ascertained as part of the project.

Tauākī whakaaweawe Māori / Māori impact statement
9. No impact envisaged at this early stage of the project but consultation will be carried out as appropriate.

Ngā ritenga ā-pūtea / Financial implications
10. It is likely that the project can be carried out by Council staff at no extra cost.

Ngā raru tūpono / Risks
11. Unavailability of staff from time to time, due to workloads, to carry out project tasks.

Ngā koringa ā-muri / Next steps

Ngā tāpirihanga / Attachments

<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Page</th>
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<tbody>
<tr>
<td>A</td>
<td>Cultivated Land Project Proposal</td>
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Ngā kaihaina / Signatories

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<tbody>
<tr>
<td>Author</td>
<td>Warren Maclennan - Manager Planning - North/West</td>
</tr>
<tr>
<td>Authoriser</td>
<td>Warren Maclennan - Manager Planning - North/West</td>
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TARGETED INITIATIVES
PROJECT PROPOSAL
AUGUST 7, 2018

OVERVIEW
Title: Discharges from Cultivated Land
Area: Resource Management Act 1991
Location: South and West
Proposed starting date: 7 August 2018
Project duration: 12 months

PROJECT SCOPE
Assess the extent of discharges from cultivated fields into the environment and take steps to minimise these discharges.

Contact person: Janet Whiteside
Email: janet.whiteside@aucklandcouncil.govt.nz
Mob phone: 021 536487
I. Project Background and Rationale

BACKGROUND | The big picture
Council has been involved in dealing with sediment discharge from cultivated land for many years. Auckland Regional Council and the Natural Resources and Specialist Input Unit in the Resource Consent Department of Auckland Council had teams responsible for compliance in the rural sector. Amongst other work, they dealt with sediment discharge from cultivated land.

RATIONALE | Relevance to LRC’s vision statement¹, Issues addressed
The Regulatory Compliance Unit has become aware that there are potentially significant problems with these discharges, examples of which are shown in the attached memorandum from Morphum Environmental Ltd. The project will include:

- Assessment of the extent of the issue of sediment discharge from cultivated land throughout the Auckland region
- Identification of steps taken to date to address the issue
- Liaising with stakeholders such as the Rural Advisory Panel, Horticulture NZ and the Pukekohe Vegetable Growers Association
- Where necessary, carrying out education of growers
- Where necessary carrying out enforcement actions.

It is essential that steps are taken to reduce the amounts of sediment entering waterways as a result of uncontrolled cultivated land. Sediment has a direct impact on waterways and organisms living in these environments. It physically smothers aquatic life, damages fish gills and mouthparts, increases temperature and turbidity (cloudiness of the water) and prevents light penetrating the water, all of which significantly alter fish habitats. Sediment also transports other pollutants such as agricultural nutrients into streams.

Excess levels of nitrogen can create conditions that make it difficult for aquatic insects and fish to survive. High levels of nitrogen can lead to excessive growth of algae. As the algae die and decompose, high levels of organic matter and the decomposing organisms deplete the water of available oxygen, causing the death of other organisms, such as fish.

II. Objectives and Expected Results

OBJECTIVES

1. Long-term objectives
   The aim of the project is to reduce the discharge of sediment and associated contaminants from cultivated land into the environment, thus reducing the impacts of those discharges on the natural environment.

2. Project specific objectives
   The objectives of the project are to:
   - assess the extent and locations of discharges from cultivated fields
   - carry out education of growers
   - where necessary carry out enforcement actions.

BENEFICIARIES

General public
Natural environment
EXPECTED RESULTS / PROJECT DELIVERABLES

- Identification of locations and extent of discharge of sediment from cultivated land
- Causes of discharges
- Adoption by all growers of methods that will minimise discharges
- Significant reduction in discharge of sediment from cultivated land and its effects on the environment, particularly waterways

III. Project Management and Implementation

ACTIVITIES and WORK PLAN

The project is expected to commence on 6/08/18 and be completed as below:

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<thead>
<tr>
<th>Description</th>
<th>Start Date</th>
<th>End Date</th>
<th>Duration</th>
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<tbody>
<tr>
<td>Project Start</td>
<td></td>
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<tr>
<td>Advise Chair of Rural Advisory Panel about project</td>
<td>7.8.18</td>
<td>15.8.18</td>
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<tr>
<td>Meet with Rural Advisory Panel</td>
<td>7.9.18</td>
<td>7.9.18</td>
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<tr>
<td>Meet with Hort NZ and Pukekohe Growers Association</td>
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<tr>
<td>Check with Healthy Waters what work done to date</td>
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<td>Phase 1 Complete</td>
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<tr>
<td>Inspect cultivated land in South</td>
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<tr>
<td>Inspect cultivated land in West</td>
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<tr>
<td>Phase 2 Complete</td>
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<tr>
<td>Analyse information gathered from inspections</td>
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<tr>
<td>Send letters to growers responsible for discharges</td>
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<tr>
<td>Reinspect</td>
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<tr>
<td>Milestone 10: Issue ANs and INs where necessary and appropriate</td>
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<td>Reinspect</td>
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<tr>
<td>Take appropriate action</td>
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Phase 3 Complete
Review project
Project End

PROJECT GOVERNANCE

- Project Sponsor: Adrian Wilson
- Project Manager: Janet Whiteside
- Project Team: Katrina Channing, Gurveer Bhandari

IV. Monitoring and Evaluation

RISKS and ASSUMPTIONS

Risks to the project could include:

- Unavailability of staff from time to time, due to workloads, to carry out project tasks
- Reluctance on the part of some growers to take the necessary steps to reduce the loss of sediment from their fields

FUTURE MONITORING

Once the project has been completed, the checking of compliance of growers will be handed to the relevant compliance teams. Any relevant information, and enforcement templates developed during the project will also be provided to those teams.

MĀORI RESPONSIVENESS

Confirm that the following documents have been reviewed and considered:

Te Toa Takatini - What is Māori Responsiveness
- Yes
- No

Whiria Te Muka Tangata - Māori Responsiveness Framework
- Yes
- No

Explain which or what aspect: ..............................................................

VI. Contact details

Project Officer: Janet Whiteside
Email: janet.whiteside@aucklandcouncil.govt.nz
Mobile: 021 536487

Sponsor: Adrian Wilson
Email: Adrian.wilson@aucklandcouncil.govt.nz
Mob phone: 0276752987

Annexes

Morphum Environmental Ltd Memorandum dated 18.6.18
Te take mō te pūrongo / Purpose of the report
1. To give a presentation on Fonterra’s Healthy Waters Programme.

Whakarāpopototanga matua / Executive summary
2. A powerpoint presentation will be made by Fonterra staff.

Ngā tūtohunga / Recommendation/s
That the Rural Advisory Panel:
 a) receive the presentation and thank the presenters.

Ngā tāpirihanga / Attachments
There are no attachments for this report.

Ngā kaihaina / Signatories
<table>
<thead>
<tr>
<th>Author</th>
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