

TO:	Ministry for the Environment	
DATE:	3 November 2023	
SUBMISSION ON:	Te āwhina I te taiao me ngā tāngata kia puāwai Helping nature and people thrive Exploring a biodiversity credit system for Aotearoa New Zealand – Discussion document (referred to hereafter as "the Discussion Document").	
FROM:	New Zealand Kiwifruit Growers Inc (NZKGI) Kathy Mason Senior Policy Advisor <u>kathy.mason@nzkgi.org.nz</u> Phone: 021 056 4778	

### 1 **Executive Summary**

SUPPORTED BY:

1.1 The Discussion Document, and the subsequent report "Our atmosphere and climate 2023" describe the current and future threat to indigenous biodiversity in Aotearoa New Zealand.

Māori Kiwifruit Growers Inc (MKGI)<sup>1</sup>

- 1.2 For many kiwifruit growers, an appreciation of the indigenous biodiversity that exists on or near their properties is one of the reasons they choose to live there. Like other New Zealanders, some growers feel a strong connection to their native plants and wildlife, are concerned about the prospect of further loss and would like to explore opportunities to help.
- 1.3 The kiwifruit industry also recognises that the protection of indigenous biodiversity is a key consideration in regard to meeting consumer expectations and is therefore a fundamental part of doing business.
- 1.4 Kiwifruit orchards are located in a variety of different environments. Some are located next to gullies, wetlands, estuaries, harbours and are close to the coast. Some growers own land adjacent to their orchards that has the potential for indigenous biodiversity protection and restoration. Some may be interested in contributing to biodiversity protection and restoration projects in their catchment.

<sup>&</sup>lt;sup>1</sup> Māori Kiwifruit Growers Incorporated (MKGI) is an organisation representing the interests of Māori kiwifruit growers in New Zealand. Established to support and advocate for Māori growers in the kiwifruit industry, MKGI works to ensure that their members have a voice in the decision-making process and are well-informed about industry developments.

- 1.5 While the capacity for kiwifruit growers to help is site and grower specific, the options may include:
  - Native vegetation planting projects,
  - Wetland restoration and creation,
  - Fencing,
  - Pest control,
  - Habitat enhancement (e.g. skink hotels and wildlife corridors),
  - Fish passage remediation, and
  - Ongoing maintenance.
- 1.6 The industry recognises that the protection and restoration of indigenous biodiversity can go hand and hand with other environmental gains. The potential for native planting and wetland restoration to protect and enhance biodiversity and at the same time improve water quality, provide shade on river margins, prevent erosion, and sequester carbon is recognised by, and important to growers. Some growers have already invested heavily in critical work to re-establish, restore and protect indigenous biodiversity on their privately owned land.
- 1.7 Other growers can see the potential to undertake protection and restoration of indigenous biodiversity on their own land, but the ability for that potential to be realised is currently being by hindered by a lack of resources.
- 1.8 We believe that a biodiversity credit system has the potential to offer the solution.

# 2 Structure of Our Submission

- 2.1 The remainder of our submission is structured as follows:
  - Section 3 describes who we are,
  - Section 4 describes where our orchards are located, and why that is important,
  - Section 5 is a series a case studies,
  - Section 6 makes comments regarding the lack of indigenous biodiversity knowledge on private land,
  - Section 7 considers what is stopping growers from undertaking biodiversity initiatives on their own land, and,
  - Section 8 provides responses to the questions asked in the Discussion Document.

### 3 Who We Are

- 3.1 New Zealand Kiwifruit Growers Inc (NZKGI) is a grower advocacy body representing approximately 2,800 New Zealand Kiwifruit Growers. The kiwifruit industry is New Zealand's largest horticultural earner, with exports exceeding \$2.9 billion in 2022<sup>2</sup>, and the industry is growing, with sales expected to grow to \$4.0 billion by 2027.
- 3.2 Māori growers make an important contribution to the industry. In 2021 alone, the contribution from Māori growers reached 15.7 million trays, providing around \$165 million in income for Māori growers. Māori growers have orchards on their traditional

<sup>&</sup>lt;sup>2</sup> New Zealand Horticulture Export Authority

papakainga (home lands) on land that is part of their local ecosystem. They have a responsibility as kaitiaki (guardians) to care for the land for future generations.

3.3 The national economic and employment impact of kiwifruit growing is substantial, as summarised in Table 1.

 Table 1: NZ Kiwifruit growers' average national annual impact 2020/21 –

 2022/23<sup>3</sup>

	Direct	Indirect	Induced	Total
Expenditure (\$m)	1,999.6	1,541.4	761.8	4,302.8
GDP (\$m)	878.1	874.3	425.9	2,178.4
Employment (FTEs)	25,341	17,010	6,148	48,499

3.4 Kiwifruit provides the highest per-hectare return in New Zealand's primary sector. Orchard gate returns for the 2022/23 season are summarised in Table 2.

Variety	New-Zealand Grown Orchard Gate
	Return per hectare
Green	\$57,636
Organic Green	\$60,912
Sungold	\$137,524
Organic Sungold	\$133,548
Sweet Green	\$41,761
RubyRed	\$42,063

Table 2: Orchard Gate Return by Variety<sup>4</sup>

- 3.5 Like all primary sector industries, returns from year to year vary. In 2022-23, while strong pricing was secured in the marketplace, the returns reflected the challenging period that the industry has been experiencing on the back of increasing costs faced across the supply chain. Quality costs, freight costs, and post-harvest costs have risen, and business costs were impacted by inflationary pressures. The significant rise in fruit quality costs that the industry experienced, which was estimated at around \$530 million in 2022/23 was driven by the season's labour shortage and poorer quality harvest. Considerable effort is currently underway to address quality issues.
- 3.6 On a more personal level, growers are already experiencing the effects of climate change, and some growers have had their crops devastated by adverse weather events such as cyclones, flooding, hail and frost. The prospect of increased temperatures, rising sea levels, more frequent and prolonged drought, the lack of winter chill (which affects budbreak), and an increase in the risk of severe weather events is of concern for growers and a challenge for the entire industry.
- 3.7 Growers are aware of the need to "save for a rainy day" to sustain their businesses and their staff through difficult times. In the face of increasing uncertainty due to climate change, and depending on the individual circumstances of growers, it can be difficult for some to make financial commitments towards biodiversity projects. A

<sup>&</sup>lt;sup>3</sup> BERL (2023) Economic Impact Assessment – New Zealand Kiwifruit Growers Incorporated (Draft)

<sup>&</sup>lt;sup>4</sup> Zespri Annual Report, 2022-23

biodiversity credit system has the potential to ensure that projects to protect and enhance biodiversity are enduring, through an appropriate funding mechanism.

3.8 Kiwifruit is grown in eight regions however much of New Zealand's kiwifruit (80%) is grown in the Bay of Plenty region where the soils are generally deep and free draining. The regional contribution and producing areas for New Zealand kiwifruit are summarised in Figure 1. While we have not surveyed individual growers regarding opportunities to protect and enhance biodiversity on their land, we see considerable potential to do so through a large part of the North Island and in the North of the South Island.



Figure 1: Regional Contribution and Producing Area<sup>5</sup>

- 3.9 In terms of available land area, we note that just 5% of all producing orchards are greater than 10 ha, with the median orchard being approximately 3 ha in size. However, while some properties are used entirely for kiwifruit growing and associated infrastructure, some growers have multi-enterprise activities and importantly some have land and waterways on their privately owned land that may offer the potential for biodiversity protection and enhancement.
- 3.10 The Discussion Document states that Aotearoa has one of the highest proportions of threatened indigenous species in the world. This includes 22 per cent of our terrestrial species, 17 per cent of our freshwater species and 32 per cent of our marine species. This is on top of the 79 species of birds, plants and other creatures we have already lost over recent centuries. Almost two-thirds of Aotearoa New Zealand's rare and 'naturally uncommon' ecosystems are also at risk. For example, less than 10 per cent of our inland wetlands remain.
- 3.11 More recently, MfE published "Our Atmosphere and Climate 2023" on 11 October 2023. This document describes how changes in our climate are causing shifts in the habitat ranges of species and ecosystem structures. Changing ocean currents and rising sea levels have led to a loss of nesting sites for various shorebirds and declining populations of some species have been observed. Some stream invertebrate

<sup>&</sup>lt;sup>5</sup> NZKGI (2021) The Voice of New Zealand's Kiwifruit Growers. New Zealand Kiwifruit Growers Incorporated.

communities are shifting their range towards higher latitudes in response to climate and environmental changes. Some species, already threatened with extinction, are highly vulnerable to climate change, including īnanga (whitebait) and kākahi (freshwater mussel). Range expansion of invasive species can put additional pressure on native biodiversity. Heat extremes can lead to mass mortality and local extinction, favouring the spread of invasive species.

- 3.12 For many kiwifruit growers, an appreciation of the indigenous biodiversity that exists on and near their properties is one of the reasons they choose to live there. Like other New Zealanders, some growers feel strongly about the need to prevent further loss of indigenous species and would like to explore how they can help.
- 3.13 In addition, the industry recognises that the protection of indigenous biodiversity is a key consideration in meeting consumer expectations and therefore a fundamental part of doing business. Indigenous biodiversity is now an integral component of Good Agricultural Practice (GAP) programmes. As described below, some kiwifruit growers have land adjacent to their orchards that may offer the potential for biodiversity enhancement. We see the potential for a biodiversity credit system to unlock that potential.

## 4 Where We Are Located and Why This is Important

4.1 Pockets of indigenous vegetation often exist in close proximity to kiwifruit orchards. To illustrate this, Figure 2 shows one example of a kiwifruit orchard at Oropi, near Tauranga. The various parcels of land that define the boundaries of the property are shown by the blue lines. There are two biodiversity areas (one of which is also an SNA) in the immediate vicinity of the kiwifruit blocks. The biodiversity area that is also an SNA is shown by the pink cross hatching. Its site number is RAP39 and it is noted as forest habitat. This is located on private land. The other biodiversity site is shown by yellow cross hatching and is 275.3814 ha in size. A stream flows through the property.



Figure 2: Kiwifruit Orchard at Jacks Lane, Tauranga. (Biodiversity area cross-hatched yellow and SNA cross-hatched pink). (Image supplied by BOPRC)

4.2 Some kiwifruit orchards are located in close proximity to natural inland wetlands (refer Figure 3). Some natural inland wetlands are located on private property.



Figure 3: Kiwifruit Orchards and Natural Inland Wetlands (cross-hatched green) located near Tetley Road

- 4.3 Some orchards border harbours (Figure 4). Some border estuaries and some are located close to the open coast (Figure 5). The discharge of water to rivers and streams, lakes, wetlands, estuaries, harbours and the coast is currently receiving increased scrutiny as regional councils review their freshwater policy.
- 4.4 Significant change will be required in some catchments across Aotearoa New Zealand to reduce suspended sediment, *E. coli*, nitrogen and/or phosphorus to meet new limits that will be set to achieve freshwater values and environmental outcomes. This is particularly the case where harbours and estuaries are degraded. The National Policy Statement Freshwater Management part 3.13 includes special provisions for attributes affected by nutrients, and regional councils are required as a minimum, to set appropriate instream concentrations and exceedance criteria, or instream loads, for nitrogen and phosphorus in order to achieve the environmental outcomes sought for nutrient-sensitive downstream environments.
- 4.5 We will return to this later, but we see considerable potential to create and restore wetlands that will enhance biodiversity while at the same time improving water quality. This mitigation measure could be especially important in nutrient-sensitive downstream receiving environments such as harbours and estuaries.



Figure 4: Numerous Orchards in Close Proximity to the Tauranga Harbour, Kauri Point Road, Katikati



Figure 5: Orchards Bordering the Wāihi Estuary, and Close to the Coast, Little Wāihi

- 4.6 In some areas, pockets of native vegetation exist today solely as a result of the conversion of land from pastoral use to kiwifruit. While kiwifruit is generally grown on flatter areas with suitable soil type, the regeneration of native vegetation has occurred in areas that are less suitable for kiwifruit, e.g., gullies, steep areas and wet areas.
- 4.7 In addition, rivers, streams and/or wetlands often occur adjacent to privately owned land. In summary, kiwifruit orchards exist in a range of environments, some of which could offer considerable potential for biodiversity protection and enhancement.
- 4.8 We also note that private land is only accessible to the general public through invitation, and in this respect is different to public land. In addition, for biosecurity reasons, growers tend to have hygiene practices in place to avoid the spread of disease and will often keep a register of visitor attendance that can be referred to in the event of a biosecurity concern. For this reason, the maintenance and enhancement of indigenous biodiversity on private land offers the opportunity for important wildlife refuge areas, noting for example that humans can spread amphibian chytrid fungus, which is a major threat to frogs worldwide, through the movement of infected soil through boots and other equipment. Similarly, dogs who may accompany people on public land can be a threat to wildlife. Sites on private land may offer potential opportunities for the reintroduction of birds, reptiles and bats due to their isolated and inaccessible nature.
- 4.9 In summary, kiwifruit orchards exist in a range of environments, some of which could offer considerable potential for biodiversity protection, enhancement and wildlife refuge. The following case studies describe the good work that some growers are undertaking voluntarily.

## 5 Case Studies

### Baygold Constructed Wetland and Indigenous Vegetation Planting

- 5.1 A <u>page</u> on NIWA's website describes a wetland that has been constructed on a former dairy farm close to Baygold's head office on Maniatutu Road, near Maketu.
- 5.2 The wetland is the result of a commitment by Baygold's directors to go above and beyond their regulatory requirements, and the drive and determination of Baygold's Relationship and Sustainability Manager Olivia Manusauloa to see the project through to fruition.
- 5.3 The wetland complex consists of 1.9 ha of wet area and 1.1 ha of riparian planting on and adjacent to the pond embankments. The 1.9 ha surface flow constructed wetland is only just over a year old, but it is already at work stripping sediment and contaminants that are derived from several sources of agricultural runoff that would otherwise flow into the Wāihi Estuary. The first six months of monitoring results from regular fortnightly monitoring and flow event sampling demonstrate exceptionally good performance for reducing contaminant concentration: 91% of nitrate-nitrogen, 78% of ammonium-nitrogen, 50% of total nitrogen, 93% of dissolved reactive phosphorus, 75% of total phosphorus and 81% of *E. coli*.
- 5.4 Baygold had previously worked with Bay of Plenty Regional Council on native planting projects covering 16 ha which included gully plantings and the restoration of ecological corridors, but the opportunity arose to work with others, including NIWA on the much larger wetland project. Funding support was provided by Bay of Plenty Regional Council, the Ministry for the Environment and the Ministry for Primary Industries, One Billion Trees Programme. Baygold has contributed upwards of \$300,000 to the project. Local iwi Ngāti Pikiao supported the project and have undertaken monitoring at no charge. The wetland, which consists of four interconnected ponds and associated planting, was professionally designed by NIWA, with funding from the Ministry of Primary Industries.
- 5.5 The wetland has been planted with 41,000 native plants. Pond margins and riparian surrounds include a mixture of sedges, flaxes, shrubs and trees (refer Figure 6). As well as improving water quality, one of the goals is to boost biodiversity and enhance both wetland aesthetics and cultural values.
- 5.6 The large areas of aquatic and semi-aquatic habitat have provided a place for wildlife to flourish. Pūkeko are regular visitors and among other bird species the New Zealand dabchick, which is a threatened species listed as nationally vulnerable, has been observed. With its small population and sparse distribution, the numbers of dabchick are likely to continue to decline and the potential exists to sustain the population of the dabchick through similar future wetland projects.
- 5.7 Invertebrates in the wetland provide an excellent food source for birds, frogs and fish. Koura (freshwater crayfish) and tuna (eels) would be expected to benefit from the habitat and food sources available in the wetland.



Figure 6: Te Rere I Maniatutu – the Bay of Plenty wetland constructed by kiwifruit growers Baygold

### Bruntwood Farms Waterway and Indigenous Planting

- 5.8 Over the course of the last eight years, Bruntwood Farms have removed approximately 6 ha of gorse, woolly nightshade and blackberry and replanted the area in native plantings in the Plummers Point Road area, near the Tauranga harbour.
- 5.9 Work commenced by mulching with a digger, letting the weeds regrow, spraying them out, covering the mulched area with wood chips for weed suppression and planting in the months of August and September.
- 5.10 The property has a stream that runs into large ponds that discharge to the Tauranga Harbour (Figure 7). Bruntwood Farms intend to initiate water quality monitoring next year.



Figure 7: Stream and Ponds Discharging to Tauranga Harbour

5.11 Bruntwood Farms have so far invested approximately \$300,000 into the projects.

### Indigenous Shelter Planting

5.12 Some growers are moving away from traditional orchard shelter species such as Cryptomeria and Casuarina in favour of mixed, indigenous shelter (Figure 8).



Figure 8: Mixed Indigenous Shelter - Ōpōtiki

5.13 The opportunity may exist to provide guidance to growers regarding the types of shelter that they can grow to increase biodiversity values in their area, while also achieving other imperatives such as protecting their crops from wind damage, and reducing the potential for agrichemical spray drift, while noting that some indigenous species may harbour kiwifruit pests and diseases and will need to be avoided. This guidance could potentially be written into regional biodiversity strategies, and distributed to growers through their normal communication channels. Our view is that with the right information, there is likely to be good uptake from growers. A well-designed biodiversity credit system would provide a further incentive.

# 6 Lack of Indigenous Biodiversity Knowledge on Private Land

6.1 NZKGI notes that to date there has been very little, if any, ecological monitoring undertaken by appropriately qualified and experienced ecologists for the full range of indigenous species that may be present on kiwifruit orchards, and surrounding land owned by growers. This is not surprising, given that extensive ecological monitoring is generally only undertaken to support resource consent applications for changing land use.

- 6.2 Having said that, Wildlands surveyed 57 kiwifruit orchards for birds in July and August 2022 and a total of 44 species (23 exotic and 21 indigenous) were recorded utilising orchards and adjacent habitats. While introduced species were predominant across all habitat types, there were typically at least three indigenous species in each of the 57 orchards surveyed. Indigenous bird species recorded included tauhou/silvereye (*Zosteropos lateralis*), pīwakawaka/fantail (*Rhipidura fuliginosa*), kotare/kingfisher (*Todiramphus sanctus*), pūkeko (*Porphyrio melanotus*) and rirorio/grey warbler (*Gerygone igata*).
- 6.3 In addition, a nocturnal survey recorded five indigenous species being ruru/morepork (*Ninox novaeseelandiae novaeseelandiae*), poaka/pied stilt (*Himantopus himantopus leucocephalus*), Pūkeko (*Porphyrio melanotus*), spur-winged plover (*Vanellus miles novaehollandiae*), and the North Island Weka (*Gallirallus australis greyi*). Because it is not possible to determine the exact area sampled by the audio recorders, it is possible that that some birds were not recorded within core orchard habitat. The North Island Weka has a threat classification of "At risk relict". The population is greater than 20,000 individuals but the taxon occupies less than 10 percent of its former range.
- 6.4 We note that it is possible that other indigenous species may be present on or close to kiwifruit orchards, in terrestrial and/or aquatic environments. Some indigenous species (e.g., skinks, frogs and bats) are cryptic and difficult to find without the assistance of appropriately trained and experienced ecologists. For this reason, some species of indigenous fauna may be present in some areas without the knowledge of the landowner let alone the local authorities.
- 6.5 In addition, for some species, monitoring can only be carried out at certain times of the year and/or when environmental conditions are suitable (e.g., skinks), so monitoring for the possible range of indigenous biodiversity that may be present at a site can involve repeat visits over different times of the year. It can therefore be expensive and time consuming to complete, especially if a monitoring season is missed and there is a need to wait until the following year to complete the surveys.
- 6.6 For local authorities, aerial imagery is an effective means of identifying the possible extent of indigenous vegetation that exists within a region/district and at property level. Ground truthing is required to confirm the species of indigenous flora and fauna that exists in an area. In some, but not all cases, local authorities have ground-truthed the vegetation that exists in SNAs on private land, sometimes in response to feedback from landowners, but they may not have undertaken other extensive ecological surveys. This is not surprising given the large number of SNAs that would require surveying, the finite number of ecologists to do the work and council resourcing.
- 6.7 While local authorities may understand to a reasonable degree the extent of the indigenous vegetation that exists on individual properties, it is likely that the full range of indigenous fauna that may be present within a large number of SNAs, is currently unknown. To identify SNAs, local authorities will draw on scientific reports and local knowledge where it exists to assist them, but this information is often limited.
- 6.8 Similarly, there is often a lack of detailed information available for indigenous biodiversity that may be located outside of SNAs. This means that a considerable amount of ecological surveying is still required to properly understand the species of

indigenous biodiversity present, and the ecological integrity of SNAs and indigenous biodiversity outside SNAs in Aotearoa.

6.9 In NZKGI's view, it will be important that a biodiversity credits system provides funding for growers to engage ecologists to walk over the site, identify potential habitat for indigenous species, and if necessary, carry out surveys to determine what lives there, and how those species can be protected and enhanced. It is also important to consider what could potentially live there in the future, so that improvements can be made in advance of the projected loss of habitat due to climate change. The relocation of some species may be necessary to ensure their survival, and now feels like the right time to start preparing for that. Pest control, planting and other cost-effective actions that can support indigenous biodiversity, e.g. lizard lounges could offer real potential to maintain and enhance indigenous biodiversity on private land.

# 7. What is Stopping Growers From Undertaking Biodiversity Initiatives on Their Own Land?

- 7.1 Some growers have expressed an interest in constructing wetlands on their property but are unsure where to start. In addition, the costs associated with obtaining the necessary expert advice, resource consents, and carrying out construction, planting, monitoring and maintenance are often prohibitive. While some financial assistance may be available through regional councils and other providers, it is unlikely that there is sufficient funding available to protect and enhance biodiversity at the rate, and to the standard required to achieve the necessary improvements in Aotearoa New Zealand. Current investment and conservation actions fall far short of what is required. A biodiversity credit system that overcomes these difficulties will likely result in good uptake by growers.
- 7.2 In addition to the examples described in the case studies, growers are increasingly carrying out riparian planting on their properties, either voluntarily or in relation to resource consent requirements. Their desire to work with iwi, neighbours, and their regional council to achieve mutually desirable outcomes around waterways located adjacent to, or running through their properties is often paramount. In our view, it is critical to reward those who are helping to protect native flora and fauna.
- 7.3 It is also our view that restoration efforts need to be nationally co-ordinated to reconnect important remaining remnants, improve water quality, and build resistance to climate change. A biodiversity credit system could help to close the gap between fast growing pine plantations and slower growing, but more diverse indigenous forests. As one of the industries that was affected by Cyclone Gabrielle, and is also at risk from serious weather events in the future, we understand the need for climate change adaptation.
- 7.4 For these reasons, we wholeheartedly support a biodiversity credit system for Aotearoa New Zealand.

# 8. Responses to Discussion Document Questions

Our responses to the specific consultation questions can be found below.

Q. 1 Do you support the need for a biodiversity credit system (BCS) for New Zealand? Please give your reasons.

### AGREE

For the reasons described above, NZKGI wholeheartedly supports biodiversity credits as an opportunity to help growers protect and enhance indigenous biodiversity on their own land.

Q. 2 Below are two options for using biodiversity credits. Which do you agree with?
(a) Credits should only be used to recognise positive actions to support biodiversity.
(b) Credits should be used to recognise positive action to support biodiversity, and actions that avoid decreases in biodiversity. Please answer (a) or (b) and give your reasons.

(B)

NZKGI sees value in recognising positive action as well as actions that avoid decreases in biodiversity, e.g., plant and animal pest control.

Q. 3 Which scope do you prefer for a biodiversity credit system?
(a) Focus on terrestrial (land) environments.
(b) Extend from (a) to freshwater and estuaries (eg, wetland, estuarine restoration).
(c) Extend from (a) and (b) to coastal marine environments (eg, seagrass restoration).
Please answer (a) or (b) or (c) and give your reasons

(C)

NZKGI is of the view that terrestrial, freshwater and marine environments should be included, because this will require recognition of the whole environment, which is consistent with the integrated approach, ki uta ki tai, as required by Te Mana o te Wai within the National Policy Statement – Freshwater Management.

Q. 4
Which scope do you prefer for land-based biodiversity credits?

(a) Cover all land types, including both public and private land including whenua Māori.
(b) Be limited to certain categories of land, for example, private land (including whenua Māori).
Please answer (a) or (b) and give your reasons.

# (A)

We reiterate the importance of Māori kiwifruit growers to the kiwifruit industry and the potential to undertake maintenance and enhancement of indigenous

biodiversity on Māori land. We acknowledge the potential for a biodiversity credit system to overcome the difficulties that Māori growers might otherwise experience in raising finance to undertake biodiversity maintenance and improvement on their land.

Covering all land types in the scope for land-based biodiversity credits would avoid any cross-boundary issues that would otherwise arise, and would provide opportunities for like-minded neighbours to work together on larger, and more ecologically valuable projects than might otherwise occur.

Q. 5	Which approach do you prefer for a biodiversity credit system?
	(a) Based primarily on outcome.
	(b) Based primarily on activities.
	(c) Based primarily on projects.
	Please answer approach (a) or (b) or (c) and give your reasons.

### (B)

Our view is that while the overall goal should be to achieve an outcome, the biodiversity credit system should be activity based, because given the uncertainties associated with climate change, desired outcomes at an individual level may not always be able to be achieved but that should not stop us from trying. An activity-based approach will provide opportunities for a range of financial assistance, all the way from assistance with small activities like pest control to hold the line in the interim, to large projects. The benefits that can be achieved with many small activities should not be lost sight of.

Q. 6 Should there also be a requirement for the project or activity to apply for a specified period to generate credits? Please answer Yes/No and give your reasons.

### YES

NZKGI favours a biodiversity credit system which provides funds to do the work, and to do the required maintenance for appropriate periods of time to achieve desired endpoints. In some cases, this might be when native plantings are essentially self-sustaining (this could be five years after planting). The endpoint will differ depending on the activity but should be connected to a desired outcome.

Q. 7 Should biodiversity credits be awarded for increasing legal protection of areas of indigenous biodiversity (eg, QEII National Trust Act 1977 covenants, Conservation Act 1987 covenants or Ngā Whenua Rāhui kawenata? Please answer Yes/No and give your reasons.

### YES

We see no reason why this shouldn't be an option, but covenants should not be a requirement to obtain credits.

# Q. 8 Should biodiversity credits be able to be used to offset development impacts as part of resource management processes, provided they meet the requirements of both the BCS system and regulatory requirements?

# YES, BUT ONLY IF THEY MEET THE REQUIREMENTS OF BOTH THE BCS SYSTEM AND REGULATORY REQUIREMENTS.

We note that in some cases, it is necessary for resource consent applicants to destroy indigenous biodiversity and the requirement for offsets ensures that this loss is balanced by biodiversity gains that in some cases are significantly larger than what is being lost. We have no objection to biodiversity credits being used to offset development impacts on the basis that offsets are only available under limited circumstances. We would be concerned if this led to a situation of greater net loss of biodiversity, and we think it is important that biodiversity loss is balanced with biodiversity gains in close proximity to where the loss occurs.

In the event that there is a shortage of philanthropists and corporates to purchase biodiversity credits, the funding that could be sourced from a resource consent application process could help to fast-track priority projects.

Q.9 Do you think a biodiversity credit system will attract investment to support indigenous biodiversity in New Zealand? Please give your reasons.

### YES

We believe that consumer demand will be the ultimate driver, and this will increase over time. Corporates will be looking to invest in a biodiversity credit system that will avoid any risk of them being accused of greenwashing. A well-developed biodiversity credit system will fulfil that need.

Q. 10 What do you consider the most important outcomes a New Zealand biodiversity credit system should aim for?

Win-wins for the investor, landowners, the people who are doing the work, Aotearoa's indigenous biodiversity, water quality and increased resilience to climate change.

Q. 11 What are the main activities or outcomes that a biodiversity credit system for New Zealand should support?

In addition to rewarding investments in nature, the biodiversity credit system should recognise and encourage activities that will contribute to climate resilience, improvements in water quality and land use change.

Growers will be increasingly affected by climate change through rising temperatures and poor bud break, less available water for irrigation, increased sedimentation in waterways, sea level rise and inundation, changes in pests and diseases and severe weather events. Many win-wins could be achieved through a well functioning biodiversity credit system that acknowledges the value in maintaining and enhancing wetlands, growing more native plants, storing more carbon, transitioning away from pine plantations, and acknowledging cultural benefits such as the restoration of mahinga kai.

A biodiversity credit system should provide opportunities for landowners to get some help and advice so that they can understand what indigenous biodiversity exists on their land, the potential that it has, and what they can do to maintain and enhance it. The system should provide for a range of activities, from small to large, to provide investors with many opportunities to provide support. On an individual property basis, pest control, the restoration of fish passage, the connection of remnant vegetation, and the careful selection of shelter species may be considered small projects, but when considered as a whole, they have the potential to achieve significant biodiversity gains.

The system should be forward thinking, so that habitat is restored and available for future species relocation before it is required, not after. The potential for areas of private land for wildlife refuge, due to restricted public access and a reduced risk of the transfer of pathogens should be recognised.

Research and monitoring have a role so that we can learn what works best and what doesn't. We should not be afraid to try new things. The potential for exotic species to support indigenous species should be recognised e.g., where it provides a food source for birds. The potential to create new and different habitats e.g., bare areas for New Zealand dotterel, and skink motels, should be recognised through the biodiversity credit system.

Q. 12 Of the following principles, which do you consider should be the top four to underpin a New Zealand biodiversity credit system? Principle 1 – Permanent or long-term (eg, 25-year) impact Principle 2 – Transparent and verifiable claims Principle 3 – Robust, with measures to prevent abuse of the system Principle 4 – Reward nature-positive additional activities (additional to business as usual) Principle 5 – Complement domestic and international action Principle 6 – No double-counting, and clear rules about the claims that investors can make Principle 7 – Maximise positive impact on biodiversity

We believe that the biodiversity credit system should be underpinned by all of these principles. As a whole the system should be aiming for permanent or long-term impacts, as opposed to activity specific actions.

Q. 13 Have we missed any other important principles? Please list and provide your reasons.

NO.

Q. 14 What assurance would you need to participate in a market, either as a landholder looking after biodiversity or as a potential purchaser of a biodiversity credit?

The market needs to be underpinned by credible evidence and third-party verification of value to avoid the solution being undermined by greenwashing.

There would need to be alignment with existing reporting. The administrative requirements of registering for a credit cannot be so burdensome that they outweigh the value of the credit for the landholder. Being able to report biodiversity actions through existing assurance schemes such as Global GAP or Zespri GAP will be important.

Growers will likely be more inclined to get involved if the process is simple and not overly bureaucratic.

# Q. 15 What do you see as the benefits and risks for a biodiversity credit market not being regulated at all?

### <u>Risks</u>

There is currently nothing to stop investment in biodiversity projects and as described in the case studies, growers are making progress regardless. A more robust scheme will take more time to implement, and some growers who are considering investing in biodiversity improvements on their own land might prefer to wait until the system is bedded in so that they can receive both financial assistance, and recognition of their efforts through a standardised system that will prevent them from being accused of greenwashing. If a biodiversity credit system is to proceed, it will be important to avoid delay.

### **Benefits**

A regulated system should result in a more co-ordinated approach, better results and transparency for all parties.

Q. 16 A biodiversity credit system has six necessary components (see figure 5). These are: project provision, quantification of activities or outcomes, monitoring measurement and reporting, verification of claims, operation of the market and registry, investing in credits. To have the most impact in attracting people to the market, which component(s) should the Government be involved in? Please give your reasons.

### **OPERATION OF THE MARKET AND REGISTRY**

Government support would be most useful in funding guidance and clarifying the legal rights of participants. Government operation of the credit registry would also lend credibility and prevent double counting through a single system.

Q. 17 In which areas of a biodiversity credit system would government involvement be most likely to stifle a market?

### MONITORING AND REPORTING

Existing assurance schemes are well-positioned to deal with monitoring and reporting. All commercial growers are already certified for food safety through an independent Good Agricultural Practice (GAP) scheme due to domestic and export market requirements. Global GAP already asks biodiversity questions, NZ GAP has a Global GAP equivalent add-on covering the same material, and kiwifruit growers under Zespri GAP receive biodiversity guidance. Facilitating monitoring and reporting through these bodies will reduce duplication of paperwork, thus making it easier for growers to participate. Similar private assurance schemes exist for other types of businesses.

Q. 18 Should the Government play a role in focusing market investment towards particular activities and outcomes and if so why? For example, highlighting geographic areas, ecosystems, species most at threat and in need of protection, significant natural areas, certain categories of land.

### YES

Government should play a really strong role in highlighting areas of need by investing in better datasets and making those available. Poor data sets that are held by commercial entities will impede progress and the government has the potential to unlock this.

If there are clear priorities that need to be achieved, the government could assist in that regard, but it is important that the government does not dictate the investment or take a heavy-handed approach to market management. Some landowners resent being told what to do on their own land and it is important that people are encouraged rather than coerced. Some investors will have very clear ideas on the types of activities they want to support.

Q. 19 On a scale of 1, not relevant, to 5, being critical, should a New Zealand biodiversity credit system seek to align with international systems and frameworks? Please give your reasons

### **NO PREFERENCE**

But if the intention is to attract international investment and meet international obligations, alignment with international frameworks may offer advantages.

Q. 20 Should the Government work with private sector providers to pilot biodiversity credit system(s) in different regions, to test the concept? If you support this work, which regions and providers do you suggest?

### YES

Testing the concept before widespread implementation will encourage confidence in the system and identify issues so they can be resolved. We suggest involving primary sector industry bodies to pilot the system.

Q. 21 What is your preference for how a biodiversity credit system should work alongside the New Zealand Emissions Trading Scheme or voluntary carbon markets?
(a) Little/no interaction: biodiversity credit system focuses purely on biodiversity, and carbon storage benefits are a bonus.
(b) Some interaction: biodiversity credits should be recognised alongside carbon benefits on the same land, via both systems, where appropriate.
(c) High interaction: rigid biodiversity 'standards' are set for nature-generated carbon credits and built into carbon markets, so that investors can have confidence in 'biodiversity positive' carbon credits. Please answer (a) or (b) or (c) and give your reasons

### (B)

NZKGI is of the view that many biodiversity activities and projects will have multiple benefits including the provision of carbon sinks and benefits to water quality, and there should be some interaction that results in biodiversity credits and carbon benefits being recognised on the same land. This would provide added incentive for landowners to agree to biodiversity related activities on their land.

The measurement of sunk carbon may take some time to develop however, and we would be concerned if rewards for biodiversity initiatives were delayed due to carbon hurdles at the start of the project that may act as a disincentive.

It will be important to ensure that biodiversity credits and carbon credits are both underpinned by internationally recognised standards that show the action is additional to what would have happened and permanent.

Q. 22	Should a biodiversity credit system complement the resource
	management system? (Yes/No)
	For example, it could prioritise:
	Significant Natural Areas and their connectivity identified through
	resource management processes
	endangered and at-risk taonga species identified through resource
	management processes.

### YES, IN SOME CIRCUMSTANCES BUT NOT ALWAYS.

The biodiversity credit system should exist solely to incentivise and fund biodiversity projects. There may be some situations where SNAs and their connectivity can be prioritised, but some landowners may not wish SNAs on their land to be prioritised. Forcing projects onto landowners will not achieve buy in and could result in adverse publicity that will likely turn some people off. There is lots of work that can be done in conjunction with willing landowners who are prepared to lead by example. A focus on the protection of endangered and at-risk taonga species is appropriate.

# Q. 23 Should a biodiversity credit system support land-use reform? (Yes/No) (For example, supporting the return of erosion-prone land to permanent native forest, or nature-based solutions for resilient land use.)

### YES.

NZKGI believes that a biodiversity credit system should support land-use reform. Activities that reduce erosion, like planting native forest on hillsides and improving water quality through wetland restoration are good examples. Activities that will improve climate-change resilience are supported by NZKGI.