#### 1 Should a biodiversity credit market or system be extended to include the provision for ecosystem services as an outcome to be achieved to be attractive to investors?

A biodiversity credit system (BCS) would focus on protecting, restoring or enhancing biodiversity, thus having biodiversity as a primary outcome. The enhancement of ecosystem services could captured in a BCS, for example via the inclusion of a metric that focuses on ecosystem health as a proxy for biodiversity uplift (an emergent approach), thus indirectly capturing ecosystem services.

#### 2 How would you envisage a credit for QEII adding benefit when the same area if not shortly will be an SNA under the NPS-IB under very strict protection.

QEII covenants could be potentially considered and identified as an action in a biodiversity credit system (BCS) in that it provides an additional commitment to protection. At this stage, we are considering all possible options of 'activities' that could qualify for a BCS and result in biodiversity-positive outcomes.

## 3 Similar to forestry credits, would there be a requirement to 'payback' the value of the credit if the biodiversity project is destroyed? Like what happens in the case of deforestation under the ETS?

Biodiversity credits would be underpinned by a series of integrity principles, for example 'permanence'. If the project or activity financed via a biodiversity credit system ceases to result in positive outcomes for biodiversity and does not meet the agreed requirements, it would no longer qualify for a credit. Under a non-regulated system, liability would be determined according to the terms of contracts entered into, whereas a regulated system could institute rules and remedies for various scenarios.

### 4 Will this presentation be available to view online, especially for those unable to take time out during work hours?

Yes, a webinar will be made available online at a later date.

# 5 I see a role for a BD credit market to help place and create value for BD restoration on private land to offset or compensate residual adverse effects as part of applying for resource consents for projects .

This exploratory work is for a biodiversity credit system mainly focuses on how such a system might support investment in nature positive actions, rather than regulated biodiversity offsets under the resource management system. However, we are interested in the public's thoughts on whether offsets should/could be included as part of this system, or could benefit from mutual supporting infrastructure, such as additional publicly available datasets.

6 Is this intended to create profit for landowners? For example, if Kelly spent \$10k on his covenanted bush block to improve the biodiversity, is it expected that the credit will be worth \$10k or could it be more or less than that?

As with any market, we anticipate that the market itself will set the price, and 'rates of return' on offered biodiversity credits, with price being determined by buyers' willingness to pay and sellers willingness to supply. Generally, we see credits as being an opportunity to acknowledge and financially support the positive actions that landowners are taking on the ground.

### 7 A common use of credits includes using them for offsets. If we believe that offsetting should be avoided within this scheme, what are some ideas for other credit uses instead?

An example could be in the context of Nature-related financial disclosures, where private entities may wish to purchase biodiversity credits as proof that they are contributing to nature-positive actions, or to acknowledge impacts on biodiversity somewhere in their supply chain. Other potential demand drivers may include, consumer, shareholder, market access or industry expectations for businesses to demonstrate a commitment to nature positive action.

#### 8 With regard to forestry, could forests being planted in permanent indigenous species be eligible under the NZ ETS as well as this biodiversity credit scheme and earn credits from both?

Biodiversity credits could be stacked on top of carbon credits enabling the forests to earn both carbon and biodiversity credits. A system would need to consider, however, ways of addressing any potential for double counting, recognising that some indigenous forest carbon credits currently receive a price premium for co-benefits at market. We encourage people to share their views on whether such issues are material, and how they might be addressed, through a submission.

9 I see some commentary on 'reversal of gains', but what about inadvertent net biodiversity loss? A BCS could supercharge perverse outcomes driven by well-meaning folks pursuing credits with inadequate knowledge of what they are doing? For example, a landowner digging up a marsh (rare ecosystem type) to create an artificial open water wetland, or landowner plants non-local natives creating problems of displacement and unproductive hybridism to occur in locally occurring populations. A BCS which inadvertently facilitates net biodiversity loss is not desirable."

A key objective of the work is that a system would promote positive biodiversity outcomes. The work to date has identified the need to have robust methodology of measurement, verification and reporting for biodiversity credits, available expertise, and good data highlighting location-based biodiversity characteristics, and priority biodiversity needing protection and restoration (ie. The most at risk and threatened species and ecosystems) to ensure that any action creates positive outcomes for biodiversity.

10 What about areas already set aside under consenting frameworks for off-setting purposes? Might be seen as double-dipping, but still hold biodiversity value in themselves - which is the whole point of off-setting.

A biodiversity credit system would have provisions for measurement, verification and reporting so to ensure that biodiversity credits are nature positive. That said, we are considering all options at this stage, which may include incorporating regulatory offsetting requirements into the system. Whether offsets are included or not in a BCS, to ensure project offerings provide additionality, an important policy consideration will be the potential for biodiversity outcomes to be double-counted and double-sold. This highlights the importance of market transparency.

11 Could there be a graded system for projects, e.g. bronze, silver, gold. For example, bronze level earns lower credit rates and has lower reporting (maybe just report outputs) and may not be required to be permanent or long term. At the other end, gold standard projects would earn more credits and be required to undertake more transparent outcome reporting and be more permanent (e.g. QEII covenant, Nga Whenua Rahui kawenata or other similar proof robust enduring commitment that binds future land managers to mitigate risk of gain reversals).

We think that there is potential for grading within a biodiversity credit system, acknowledging that some of New Zealand's biodiversity is at heighted risk of extinction. This will be an important design consideration for the team going forward.

12 Focusing on 'outcomes' is critical, a credit system that value 'output' only will not effective. How do you propose tackling reversal of gains which are driven by activities on adjacent land which are not under control of the BCS project manager, e.g. spreading of feral ungulates from unmanaged populations nearby, spread of weeds, ingress of excess nutrients/sediment.

Improving biodiversity outcomes would be the main objective of a biodiversity credit system. However, we have not landed on a structure for a credit system yet, and as noted in the presentation, this could focus on activities, measurable outcomes, or a mix of both (project based). This will be a key design consideration for the team and each has positives and negatives. Also, current consideration is that a credits could apply across catchments areas involving multiple landowners, but it would be a voluntary opt in system.

13 Will this BCS deal with the 'charismatic distortion factor'? That is, projects with charismatic species (pretty plants, cute birds) are likely to more popular with funders than other species/ecosystems which are more cryptic/less cute. If those purchasing biodiversity credits can pick the project they fund then BCS outcomes may not achieve outcomes for the most threatened species. Note, many of our rarest ecosystem types occur on private land and species associated with these often struggle to get any funding. Could there be a centralised pool of funds which are allocated by experts (e.g. regional council biodiversity staff). This could allow a 'project risk check' to avoid unintended perverse biodiversity outcomes through poor understanding of the site sensitivities and what management is needed for best ecological outcomes? Well-meaning people can unfortunately harm nature sometimes by rushing in with inappropriate restation activities.

A key consideration for the work is that some of New Zealand's plants and animals and ecosystems are at higher risk than others, and some form of visibility and direction in this regard will be important for the market to achieve impact from any additional financing. There is also a tension that needs to be acknowledged, that credits will need to effectively attract investment. These will be important design considerations for the team going forward.

14 Conservation work (e.g. pest control) requires funding before the work takes place. Are these credits expected to be sold for "potential outcomes" or are they expected to fund projects once works are complete?

At this stage we do not have a framework to show what a credit may look like, although the aim is to fund actions/projects that result in positive outcomes for biodiversity. It may be important to consider timeframes, and this may be included as part of the methodology used to measure and verify biodiversity credits.

15 In NZ I am puzzling why a potential investor would be attracted to this approach when there are any number of biodiversity projects underway that are seeking financial support - so they can have a direct relationship with the project and where the money is spent. Eg the numerous Jobs for Nature funded projects that are now up and running with no long-term funding in place

Biodiversity credits are amongst emerging green financing mechanisms, which could be particularly well suited to channeling private investment to private land initiatives.

They are not necessarily the only answer to closing the biodiversity funding gap.

Part of the work underway is to better understand what drivers for support for nature initiatives over time from different potential funders might be, such as corporates, and what qualities might help to make nature initiatives attractive to such support.

Initial work indicates that prospective funders are interested in both the nature of projects, but also other characteristics, such as assurances as to the integrity and prospective impact projects have. There are also indications that many prospective investors do not have the capacity to undertake due diligence. A key focus of the work is to identify roles of government in providing assurances as to the integrity and impact of market offerings, to support prospective investors to have confidence to invest in the emerging market.

For instance, credits that are verified for their integrity could encourage greater investment. It is possible that some projects, running at present such as J4N projects, could qualify for accreditation for instance, and be offered into a biodiversity credit market.

16 How shall this scheme avoid an overt bias on gaining "quick" credits e.g short-term outcomes and/or higher credit return purchases/activities/outcomes?

This is a great question and will be a key design consideration for any potential credit system. Timeframes for the 'release' of credits (ie, how long before they're generated), as well as how long credits 'last' (ie, life of the credits) will be important things for the team to consider, in considering objectives such as the accessibility and transaction costs of the system and achieving permanence.

17 Might have missed this sorry, but just trying to understand what the implications of "proven" benefits to biodiversity (in terms of permanence). Any idea or example of how this would be quantified/measured?

An example of this could be having a set of metrics related to biodiversity or ecosystem proxies for biodiversity that are monitored and measured to ensure that projects/actions are contributing positively to overall biodiversity.

### 18 Do we think the govt would be open to being only a market investor and having tangata whenua lead market design and implementation?

The role for the Government in any potential future system is currently open and has not been set. This may include a more limited role, such as acting as an investor.

#### 19 How is the value of each species going to determined/weighted in the credits system?

This is a design consideration for any potential future system. However, the future system may not even place 'values' on species themselves. A biodiversity credit system could be built based on valuing 'actions' that lead to positive biodiversity outcomes, rather than the biodiversity itself.

#### 20 Do you foresee this progressing if there is a change in government or would it be radically different?

Our next milestone is to provide the Government with a report back on the feedback that we have heard following public consultation, after it closes on 3 November. The job of our team is to advise the government of the day impartially.

#### 21 Could you use credits that off both offsets and biodiversity to claim two different outcomes - ie meet an offsetting goal and meet a biodiversity credit.

How, or whether, we incorporate offsets into a biodiversity credit system is a key consideration for our team going forward. A credit system will also need to ensure there is no double counting of outcomes enabled within the system.

22 Just typing questions/ideas as I get them: Are there benefits for having protected species vs protecting land to make it appropriate to host those species? Would there be a bonus for contiguous areas? Bonus/benefit for QEII? (Rates forgiveness, additional credit?) How is it assessed? Would need annual assessments for invasive weeds/pests. Perhaps these units need to be split into two types: current value (this is a good biodiverse forest currently, incentive to keep it protected) vs futures (benefits paid to change from a disturbed habitat to a biodiverse native habitat). Add a cost to disturbed land similar to a carbon tax: Toxic/industrial land needs full offsets, to parkland needing a partial or fractional offset? Perhaps set on goals of pre-human biodiversity? Include in rates (voluntary or?)? A baseline government investment cost could be funding de-extinction of known species.

Everything you have raised will need to be considered by the team going forward, including aspects relating to what is the baseline for the credits system, whether they will only reward additional

actions for biodiversity, whether credits are awarded for additional protection (eg covenants) and whether there be different 'grades' of credits.

23 I see no sound reason to ring fence this BD credit system to exclude the RMA (or future Acts). The consenting pathway is an ideal opportunity to link offsets/compensatory opportunities from the private sector to assist BD enhancement on private land.

As noted above, we are considering all options at this stage, which may include incorporating regulatory offsetting requirements into the system. Whether offsets are included or not in a BCS, to ensure project offerings provide additionality, an important policy consideration will be the potential for biodiversity outcomes to be double-counted and double-sold. This highlights the importance of market transparency.

#### 24 Would they be retrospective eg credit past work?

This is an important consideration for the team. An option is to focus credits only on 'additional' action from a baseline date, or state. Another option is to include existing biodiversity and reward 'avoidance of removal' or something similar. Demand from buyers will be a large part of the consideration here – ie, whether buyers would be willing to purchase credits for existing biodiversity.

25 Carbon credits are one unit of CO2. I have a hard time understanding what a Biodiversity Credit is because habitat values are widely variable. How do you define a single biodiversity unit that is to be traded?

As you state, measuring biodiversity is a bit trickier than measuring carbon. There are a few examples internationally how this has been done, which is usually via a 'basket of metrics' approach, where multiple indicators (e.g species richness, distribution, density, area) are tracked and overall considered for biodiversity. We encourage submissions on possible methodologies.

### 26 Are there any requirements around additionality that we must meet in all parts of the system or just with offsetting?

Additionality may be considered as an 'integrity principle' underpinning a biodiversity credit system. If you believe this should be considered, we encourage you to have your say via a submission.

#### 27 Will you need to be, or become an SNA if you access BDC?

We anticipate that SNAs could be incorporated into a biodiversity credit system, as they represent work that has already been done to identify our most significant biodiversity, however, this is not certain or decided yet.

28 Do you envisage that a there will need to be some standardisation. E.g. a set of minimum standards / standard restoration prescriptions for credits to be meaningful.

This will need to be considered as part of the design of any credit system, under the 'scope' of what could be included as a credit.

29 How are you quantifying market demand for biodiversity credits during your exploration phase and how should people think about communicating this during their submissions? Is there a series of outcomes or a dollar value that you are looking at this stage?

Part of what we are hoping to achieve through consultation is a better understanding of the demand out there for credits. We are not basing this off a dollar value yet. If businesses, philanthropists, or other groups are interested in investing, we recommend they outline this in their submission - or if they're not, what it would take to get them interested. Equally, for suppliers of credits, we recommend they outline their interest in being involved in a credit system.

30 How is this process and design including tangata whenua, and honouring of Te Tiriti, to ensure there is partnership, equal benefit and inclusion of mātauranga Māori/te ao Māori view?

The project team is working with iwi technicians to understand key considerations for Māori in this space. As part of the consultation process, officials will participate in iwi coordinated hui with Māori to further canvass the breadth of views from Māori on this topic. Part of our report back to government will include recommendations for progressing this work in a way that gives effect to the principles of Te Tiriti.

31 Do you think there is a risk of 'activity credits' rewarding actions that don't actually result in an net gain/positive outcome? How would that be monitored and at what point would the 'doer' of the activity be rewarded?

There is definitely a risk that this could occur. However, we anticipate any future credit system will have a number of integrity principles to ensure that any credits awarded can be relied upon to have actually achieved outcomes for biodiversity. This may include a set timeframe before credits are 'awarded', ongoing monitoring requirements, or minimum standards (eg: best practice) for activities undertaken.

32 Is it anticipated that the monitoring/verification organisation be semi-independent from Government departments? (eg like Stats NZ is). One criticism of BDC systems is that the govt is marking their own homework if they are a recipient of credits.

This is certainly an option that will remain under consideration. We do not have a monitoring/verification agency or organisation lined up. However, we consider that it will largely depend on the level of government involvement. Credits could be third party verified only (to a set of standards set by Government), or it could be monitored via existing organisations/agencies who undertake similar roles already.

# 33 Is assigning monetary value to ecological systems create an inherent risk of devaluing natural ecosystems? If the units lose value, does that incentivize land use conversion to another more profitable land use?

A biodiversity credit system could focus on supporting and valuing activities and outcomes for biodiversity health, rather than biodiversity itself. A potential for a biodiversity credits system is to drive land use change, however, this is already largely happening (to the detriment of biodiversity). There is a large amount of land that is unsuitable for other profitable land uses (eg, marginal land, erosion prone land, gulleys) which we see as potential beneficiaries from a credits system, with credits helping to fund/expand biodiversity action on this land.

#### 34 Like the ETS / Forest planting, will there be a cut-off date. Eg if you own native forest that is 50+ or 100+ years old will you be able to access BDC.

This will be a key design consideration going forward. There is the potential to include existing biodiversity in a credits system, however, we are anticipating that there may be some limitations in terms of what the market is willing to buy (eg: funding existing biodiversity, vs funding the expansion/restoration of more biodiversity).

### 35 Would there be a national credit/unit used to avoid differences in credit/unit values if there are multiple credit providers?

We are aware of a couple of private sector offerings already being made available in New Zealand. The consultation underway seeks to explore a role (if any) for the government in a biodiversity credit system. That role may simply be to set standards for what is considered a 'credit', which private sector groups could then choose to follow (or not).

36 Pointing out a potential funding aspect: A cost to having land that hosts invasive weeds/pests.

No answer needed

#### 37 Thanks - I will be making a submission

No answer needed

# 38 What role do you see monitoring/compliance in these BC systems - i.e. what are the obligations on the seller/investor to achieve what they set out to achieve, and if they're not achieved...are there repercussions?

To be effective, a biodiversity credit system needs to have integrity and provide assurance to participants that the market can be trusted. How this is done is likely to depend on the role that the government chooses to take in any potential system. Regulating a biodiversity credit system with clear repercussions for breaches to market integrity could be needed.

39 Selecting projects and then monitoring and reporting on BDC projects will be an expensive process and effort for regulation. So much so that it could greatly limit its outcome. Is there a good understanding of the magnitude of this operationally?

Currently the magnitude of this undertaking is hard to outline, this is mostly because the parameters for the system haven't yet been set - more complicated systems will likely need more monitoring, while simpler offerings may be able to function more efficiently and with less monitoring. We envisage that there will be a balance to be struck between ensuring integrity/monitoring is effective and trusted, and not being so burdensome that the system absorbs all efforts/funds into monitoring.

40 If a company wants to support biodiversity through a landowner but won't be a recipient of the credit, would there be scope for tax incentives?

Tax incentives are not in scope of the current consultation exploring the potential for biodiversity credits in Aotearoa New Zealand

41 Under activity credits, would each "credit" be a standardised measure worth X\$\$, and then different "activities" would earn different amounts of credits? How do we value different types of activities? E.g. is planting more or less important than weed control? Also depends a lot on the context?

This would be something for the team to work through if the government decides to pursue a credits system with credits based on rewarding activity. There are a couple of existing examples in NZ of activity based credit offerings. One bases the cost around the cost of undertaking all conservation activity in one hectare (ie, you undertake all the required activity to protect and restore 1 hectare, which has a cost of x amount), the other is a more direct cost related to trapping specifically (ie, it costs x amount to trap x area, so that is how much the credit costs).

42 Three different approaches were mentioned – but who and how could/would the contributions and outcomes robustness and consistency be ensured? And what science and processes are or would be underway to ensure this is evidence and empirically based?

As noted above - these are key design considerations that our team will be working through if a biodiversity credit system is pursued by the government. Ultimately, the team will be looking to ensure that any credit system is well-functioning with high integrity, where positive outcomes for biodiversity are achieved.

43 I can imagine a scenario whereby a veg clearance consent applicant offsets by legally protecting another area with a QEII covenant (prevents additional 'bites of the pie'), that landowner or future landowner could then undertake active stewardship steps of pest and weed control (native positive) for biodiversity credits. That is two actions taken on the same bit of land - legal protection (offset) and then systematic and effective pest and weed management (biodiversity positive).

As you may be aware, the recently introduced national policy statement for indigenous biodiversity has a number of principles that must be followed if undertaking offsetting, these include things like -

net gain, additionality, and leakage. These seek to improve the outcomes from offsets. As noted above - the team is seeking views on whether or not offsets should be incorporated into a potential biodiversity credit system, or considered alongside in parallel.

# 44 It feels like a key driver of this is to encourage planting of natives to expand those areas, given that unfortunately pines are more attractive for ETS. In that case will the BDC be made more attractive than ETS via pine plantations?

The project team is looking for feedback through consultation on the ways in which a potential biodiversity credit system could/should interact with carbon markets. There is the potential for carbon credits to be stacked or stapled with biodiversity credits. This may go some way to closing the gap in return between indigenous forests and pine forests under the ETS.

### 45 If carbon and biodiversity credits are not linked, could same land be registered in ETS and Biodiversity?

This is entirely possible, as long as the land is meeting the requirements of both of these systems. The extent to which carbon and biodiversity markets are linked is a key question which we are seeking feedback on through consultation.

### 46 Would it be simpler to create a biodiversity grant that companies and philanthropists can pay into? Like 1BT programme? Is there an actual benefit to creating a market unit whose value can fluctuate?

That is an interesting idea and would likely be simpler for sure. however, what we've heard from groups looking to invest in biodiversity credits, is that the attraction is being able to point directly to an impact that they're having on the ground, ie, the ability to choose projects that align with their values, or to invest in areas which have significance to the business. Tracing impact through generalised funds is a lot harder, and may put some businesses off.

#### 47 What is the \$ value of available investment in New Zealand

It is highly challenging to estimate demand for biodiversity credits, even for established markets. The team is drawing from overseas and local examples, with the focus being on understanding what qualities could make a market attractive to investment. We may choose to explore options for quantitative research in the future, as understanding demand for credits is a key bit of feedback that we're looking to receive through the consultation process.

### 48 Do you think that a biodiversity credit system or market would be (prioritised) led by matters identified under the Regional biodiversity strategies required by the NPS IB?

A biodiversity credit system could potentially incorporate matters identified in regional biodiversity strategies as part of its integrity principles, although these would have to be applicable nationwide.

Similarly, the integrity principles of a BCS could incorporate considerations on locality. The team is open to exploring all options.

# 49 what is your definition of biodiversity and how to measure it? i.e. are you looking at number of organisms, right down to insects and microorganisms or are you focused on larger flora and fauna species?

The definition of biodiversity provided in the discussion document is: "The variability among living organisms from all sources, including land, marine and freshwater ecosystems, and the ecological complexes of which they are a part. This includes diversity within species (including genetic diversity), between species, and of ecosystems (based on the definition of the Convention on Biological Diversity)". There are a few examples internationally how biodiversity can be measured in a BCS, which is usually via a 'basket of metrics' approach, where multiple indicators (e.g species richness, distribution, density, area) are tracked and overall considered for biodiversity. We encourage submissions on possible methodologies.

#### 50 is there a minimum land block size?

As our work is exploratory at this stage, we have not identified a minimum land block size.

## 51 How do recognise work of adjacent landowners that may be doing work on their property that impacts on adjacent properties ability to support their biodiversity i.e. reduce the impact of reinvasion?

Depending on how a BCS is designed, biodiversity outcomes would be measured on the piece of land subject to the credit. Activities such as fencing, which may lead to positive effects on biodiversity, could qualify for a credit and help reduce potential neighbouring effects.

#### 52 DOC's 'ecosystem prioritisation work is helpful to how to stretch the dollar to get best outcomes for the most threatened species and ecosystems.

As this is a joint MfE and DoC project, we will explore possible methodologies that consider ecosystem prioritisation, although we are not set on any specific method at this stage. We encourage you to make a submission regarding this and a BCS in general.