Thesium Pty Ltd

Biodiversity offsets sourcing and administration

Monday, 28 November 2022

Independent Pricing and Regulatory Tribunal
By electronic means

Re: IPART draft terms of reference to monitor the biodiversity credits market

Dear members of the IPART project team

I make this response in the consideration that I have a number of distinct roles and extensive experience in the NSW Biodiversity Offsets Scheme (NSW BOS) spanning well over a decade. I am also likely one of the only people – if not the only person – who has had an almost complete suite of experiences with the BOS.

I thank the Tribunal for giving the opportunity to provide this response and make suggestions of the facets of the BOS – and in particular the market of the individual component units called biodiversity credits – that should be considered in providing a response to government and the people of NSW. The information provided for the consultation identified that the tasks for IPART included the following:

1. Monitor the performance of and competition within the biodiversity credit market, and make findings and recommendations with the aim of:
    a. Maintaining and promoting competition
    b. Addressing the interests of biodiversity market participants, and supporting fair trading
    c. Identifying opportunities to improve market efficiency and address market failure
2. Report annually on the performance of and competition within the biodiversity market for a period of three years (annual market monitoring report).

The Considerations are also of interest, and have in part been rolled into my response below.

There are some facets of the scheme which have to be taken into account in determining the performance and competition aspects that I trust the Tribunal will recognise. I identify these in the following points.

1. **Biodiversity is a finite resource.** By this I mean that, in particular reference to particular threatened communities or species, they can only occupy a place where a limited combination of environmental and historical factors co-occur. You cannot, for instance, have Cumberland Plain Woodland except where the Wianamatta Shale occurs (that being a pre-requisite in the legislated description) and that is restricted to the lower-altitude areas of greater Sydney from Central Station to the foot of the Blue Mountains, and from near Kurrajong south to Berrima, but then the community is restricted in the southern extent by the distribution of the component suite of species to not occur much south beyond Bargo. An impact to Cumberland Plain Woodland is geographically restricted to that area – 3,300 km^2 or about 0.4% of the area of NSW – and 96% of that area of original habitat has been cleared, with the vast majority irreparably replaced by urban development. In spite of the very simplistic belief of some

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associated to the design and operation of the scheme that simply put is 'well you can just make more by conserving more area', biodiversity has other ideas. It cannot be translocated or moved to another location easily. It cannot be 'established' where the conditions do not suit it, and it most certainly cannot be considered to have an infinite growth potential. There comes a point where, the last credits available to offset impact will need to have an infinitely high price (as would be suggested by simple economics of supply and demand).

2. **The complexity of the scheme is inherently derived from the complexity of biodiversity.** NSW has more than a thousand threatened species and ecological communities. Each of these is unique. While some may be related to each other, the loss of any one is a permanent and irretrievable loss to the natural heritage of NSW.
    a. While comparison and some correlation is possible, even species with equivalent threat listing ('status') are not equally distributed and have equivalent costs in managing the populations going forward. Many are highly specialised and may rely on particular management actions that make their ongoing conservation more complex and hence more costly.
    b. The singular way to get around this complexity is to provide the species and other entities with a value that uses a standard currency unit – the AUD – to identify the value in the market. Giving entities a dollar value does not equate to a simplification of the means of considering them, nor does it allow for a simplification of the categorisation of biodiversity inherently required to ensure that all of the impacted entities are addressed individually and holistically. Unlike carbon trading, which is essentially running on a single 'component' – a tonne of carbon dioxide or its equivalent in regards to the impact on radiative forcing in the atmosphere – biodiversity has many, discrete and not-equitable elements.
    c. The capacity for and ability to have competition within the market is closely aligned to the diversity, spread and capacity of the sites to generate credits for impacted species. Some species are highly localised, occurring in fragmented locations across the state or under particular combinations of landscape features that limit the opportunities for sites to be established but also highlight the importance of any impact. In these instances the requirement for like-for-like will lead to a natural reduction in competition opportunities but should also be considered a valid and valuable means of ensuring that the species' needs are addressed.

3. **Credits are like shares in the stock market.** Each one represents a unit of value in the outcomes being achieved – improvement in the habitat condition and population count of the entity concerned. In addition, like the stock market, each share type has a value that reflects the inherent value of the species or habitat ('the company'), the cost of achieving that improvement (in essence, the earning capacity of the company) and the capacity of that company's earnings to ensure an income to the stockholder (a profit).

4. **When a credit is created it has two equally valid futures.** One is for it to be held (like a share) for the opportunity for future capitalisation in value while the other is for it to be traded for the purposes of retirement, where it is used to balance up the loss caused by the development against which it is matched. In both of these instances, the original holder of the created credit (generally the owner of the land on which the agreement generating that credit is located) gets a single payment for each credit – that is monetised on the first trade of that

credit and is all of the earnings that unit of land will ever be able to achieve from that point in time going forward.

5. **It is vitally important to recognise that the agreement in place will identify at that point in time all of the current and future earnings potential for the land.** As it is written to title, and the land can only be used for the purposes for which it has entered into the agreement (being primarily nature conservation or 'farming biodiversity'), the Total Fund Deposit (TFD) must contain a value that equates to – at the very least – the current economic return from that land. If that is land which is currently turning off one steer per year per hectare – and if a steer is notionally worth $500 in income after expenses – then that TFD must contain a value that equates to a value of 'number of hectares multiplied by $500' in foregone income supplied annually, which when put through the TFD calculator adds a lot of money to the cost base for credits. In general, the developers have railed against this as it increases the cost of credits to themselves, but that should also not be a reason to dismiss the future earnings potential of the land that is being affected (the stewardship) by the future earnings potential of another area of land (the related development).
    a. The reason generally given for pricing credits without accounting for any 'foregone income' value is unclear, and in fact it is presented by DPE as being almost an afterthought in their guidance for pricing credits (Biodiversity Credit Pricing Guide). This is wrong, as that whole document essentially frames the price of credits as being the costs of the actions involved in the management costs, describing these as 'a central component of credit prices' and notes that the TFD – derived from these costs – is therefore central to the determination of a fair price for the credits. However, it is often shown that the prices identified for these management actions are costed as though the landholder is undertaking them. Given rural landholders have the highest rate of workplace injuries, and second highest rate of workplace fatalities, of any industry in Australia, it is fallacy to assume that the landholder who signed up to the agreement will be the one conducting these actions into the future. Let alone the simple fact that these are in perpetuity agreements, and no one lives forever. The activities must be costed at the highest quote given for the actions, as it cannot be guaranteed that the cheapest quote will be available for the work or will do the job adequately. In addition, the benefit provided by including the 'foregone income' component in the TFD annual payment to the landholder is that the landholder has a buffer to counter any unexpected rise in costs (many things in agriculture are driven by the USD and therefore exchange rates have an impact on the costs of chemicals and materials) as well as provide the landholder with an income derived for looking after the land for its biodiversity values rather than having to care for it and do particular actions because otherwise they may not get paid the next year – especially should an injury happen or illness strike and they become infirm or disabled.
    b. A secondary, beneficial outcome of pricing the actions with a fair amount of 'wriggle room' is that the unspent component of the management actions becomes income for the landholder. Where there is a tax-free component of the income each year (as currently applies for personal income) this adds a tax benefit to the landholder to put more value into the TFD and receive the tax-free benefit over the longer term rather than all and only in the year (or years) in which credit sales occur that would otherwise be in a potential 'profit-earning' component of the credit trade value (formerly called the 'part B component').

c. The impact to land valuations is significant where a lender cannot clearly see a value coming from the land itself. Many of these sites – especially once away from urban centres – will rely on the landholder being resident or at least nearby. The landholder may seek to mortgage against this part of their land for other farming activities or other investments. Without a clear source of income – or one which is subject to extreme fluctuations such as the amount of 'residual management funds' left each year – few lenders would entertain providing finance with that land as security.
d. The upshot is that a landholder considering the BSA as a realistic source of income for the land – and as land with an inherent value in the way that the State already recognises that by granting this permanent conservation role – must also be fairly recompensed each year for undertaking that work of protecting the threatened biodiversity on the behalf of the people of NSW and to allow the developer to undertake their project, from which they will very likely make a tidy profit.

6. It is particularly important to recognise that the credit value to the potential purchaser is the determiner in almost every case of the extent of biodiversity impact a development will cause.

a. If a credit is too cheap, then there are two routes followed by a developer – both equally valid and permissible under the scheme. The first is to 'assume presence' and not undertake any survey for the species. This then burdens the stewardship side of the market to generate the credit, often for a price which is not commensurate with the effort required to prove the species' presence (mandatory in the scheme) and often resulting in a relatively small credit count (particularly for bird species that use nesting hollows that are spaced well apart and can only be counted if proof of the use is shown through incontrovertible evidence). The second is to find the species, but not be dissuaded against impacting the species and / or its habitat as the returns from the development make the cost incurred a miniscule impact.
b. When credits are expensive, a developer will obviously try and avoid impact to the entity, reducing the project costs as impacts have to be retired before development commences (or of that stage, where a staged delivery is agreed to in the consent). This is generally the only way – in my experience with negotiations with some of the largest developers in the state – in which avoidance is genuinely discussed.
c. Where a developer attempts to provide a reduction in costs through the commissioning of their own offset sites or negotiates a delivery cost of the offsets with a landholder who will be burdened, there is not always a clear and reliable train of 'credit-associated costs' portrayed in the costs for credits that are traded between these related entities. If the offset site is developed and commissioned without due consideration of the fact that these are in-perpetuity agreements that will burden every landholder going forward – and be the only source of income possible for that area of land included into the agreement – then future landholders have a high likelihood of being burdened with providing an input towards land management themselves. This will occur either through a financial input (as I know of several doing) or through undertaking the mandatory and required work at a rate that is below the rural workers award rates or even the minimum wage. In essence, the landholder effectively a slave to the developer who has made their profit and walked away.

7. **Where a developer makes a very large profit, and the environment has still suffered a sizeable and potentially unsustainable loss, there is not a fair equivalence** of two of the three components of 'triple bottom line' accounting. If biodiversity impacts occur, and the landholders burdened with offsetting a developer's impacts are not fairly paid to the same or similar quantum per unit impact as the developer makes in profit from causing that impact, then the credit trading prices are too low.

8. **The taxation implications of participating in the scheme** as a supplier are generally poorly recognised – especially by staff involved in the scheme in DPE. A landholder creates the credits as an asset, and therefore becomes subject to the impact of capital gains tax – losing to Canberra a third of all money made in trading the credits once the base cost is exceeded. The base cost for the CGT component is the value of the Total Fund Deposit and the assessment costs (where burdened upon the landholder) and the change in any value of land affected (or in the cases I am most familiar with through my experience, the costs of acquiring the land (including all costs incurred such as the land itself, conveyancing, legal advice, interest that is paid on any loan provided, etc.). Credits traded too cheaply to avoid Capital Gains Tax may also mean that there is no 'profit component' incurred by a landholder or put another way – no source of income from the land for the landholder. A financial institution seeing this would therefore rate the land as having no earning capacity and not lend against the land for a mortgage.

9. **The role of the BCT and the offset fund has been distortionary.** In what other situation can a trade occur when there is no guarantee of providing the item that is being paid for? The BCT takes on obligations without knowing whether those obligations can be satisfied within the bounds of 'like for like' and therefore are given very wide opportunities to seek a resolution for an impact under variation rules (though these are thankfully limited when Commonwealth-listed entities are involved). It provides the supplier-side with no certainty of sale, as the BCT can also choose not to buy a credit priced by the vendor when the prices are too much higher than what they sought to achieve when they took on the obligation. This means that development is occurring at a lower cost to the environment than is market value – the government is providing a 'cut-price option' to developers and NSW taxpayers are filling the gap. A developer should be required to pay what the market sees as the value of those credits. If the value is high and competition is scarce, then that is just the way it should be (as it is for say diamonds or precious metals or any other finite resource). The developer could re-design to not impact upon that biodiversity and therefore reduce their relevant costs to zero, but apparently the development is much more important than the persistence of the biodiversity.

10. **The Credit Supply Taskforce is another means by which government has sought to accelerate the development side of the process rather than truly address the main reason participants are not bringing credits to market** – the price offered for credits by developers being too low to make it a realistic alternative income for the land. The CST's own written material suggests that the taskforce thinks that a 20% margin on the TFD is good enough to make a profit for the landholder. I argue that this is not the case, and is equivalent to being told to accept what the buyer is wanting to pay, not what they are willing to, or should be required to, pay to impact a finite resource. When the CST identifies that a premium of 20% on the TFD value for the cost of the shares they are saying that the in-perpetuity value of

that land is nothing. 20% spread across the 20 years of the initial stage of the agreement is the same as a 0.92% annual return compounding. Using the federal government's own calculators (https://moneysmart.gov.au/budgeting/compound-interest-calculator) it can be shown that this return of between 5% and 25% that DPE think is a good return (as suggested in the guideline for pricing credits linked elsewhere in this document) is a nonsense. Five percent a year is a minimal return on the long-run increases in land value (rural land has accrued in value by 523% in the 25 year period between 1996 and 2021: Valuer General data) – a compound average annual growth rate of just over 6.84%. How then can the department serious consider that the concept of a 25% growth rate over an infinite term is a fair earn? It should be a multiple of the TFD, not a percentage of it, that factors into what credit pricing should be considered to be reasonable.

11. **By acting in a way that complies with the 'competitive neutrality' principles DPE is acting to distort the market and provide a socialisation of the costs to biodiversity whilst enabling profiting by developers.** You don't walk into a department store and just put things in the trolley – you check the prices and compare. Biodiversity credits are not really that much different – you check the prices and compare. If all a developer has to do is get the department to do the checking work for them, they are offloading core business to the public purse, and again, making more private profit. This process of providing services to the development industry that is being undertaken by DPE is leading to an unfair distortion of the market as it will concentrate all of the credit trading activity to occurring only through those channels.

So, how does this composition of pointers relate to the role of IPART in monitoring and providing reporting of the NSW biodiversity credits market?

IPART needs to ensure that the following facets of the market are clearly and easily addressed:

- **A singular register identifying all of the credits that have been created** under both the current (BOS) and preceding Biobanking Scheme, with credits shown in a standardised or comparable form (that is, with BAM and BAM-equivalent values in a single column), and shown in the 'element' of the scheme: 'offset trading groups' (a species is shown as that species, a plant community as one of the many OTGs available but only as the one which applies.
    - The register should be simple, searchable, and not rely on being downloaded to be manipulable. The BBAM registers were a good model. The current BAM registers are 'a dog's breakfast' relying on the data to be downloaded and opened in a spreadsheet (despite being in a HTML format) and must be manipulated to be useable. Then, the data held is incomplete, shown variously across the many columns available and is not always dependable (especially for keeping a running tab on trades of 'equivalent' credits that are shown on the BAM register where trades have reduced the volume – and DPE administers these trades!)
    - The register needs to simply identify those credits available for trade and the contact details for those vendors.
    - The register should also identify the trades that have occurred, the prices per credit at which these trades occurred and the date, as well as any other relevant information (such as the 'source' and 'use' subregions for credits)
    - **This in part satisfies the IPART task of maintaining and promoting competition and supporting fair trading conditions. It will also enhance the efficiency of the process.**

- **An approach to the BCT to 'pay into the fund' must not continue to be so readily available** – especially where the BCT does not already hold those credits being sought. Potential clients must show that there was a testing of the market to at least gauge what the vendors would respond even though there is no legislative requirement for this to occur. The BCT does not 'create' credits, so takes on obligations for developers through acquiring credits from the vendor providers with a stewardship agreement, often after the impacts of development have occurred. Indeed, there is little apparent probity involved in having the BCT accept a liability when there is absolutely no guarantee that there is a capacity of acquit that obligation.
    - There should be a single portal where anyone wanting credits puts their requirements up for public view. This then allows the BCT and anyone with those credits available to provide a response to the developer proposing to cause an impact.
    - Credit demands should be clear, expressed in the BOS requirements (species, count; OTG, subregion, those areas identified in the tool out put as providing an offset capacity, count) and time-stamped. The BCT Credit Offer Portal provides a workable model on which to base the register.
    - Where the fund has acquired an obligation, and this is not able to be satisfied by their existing credit holdings, the relevant credits sought should be displayed in a publicly available register that allows a potential stewardship to consider what credits are already demanded by the market to determine if survey for those entities is worthwhile.
    - **This portal would address and support a better 'fair trading' opportunity for all participants and would accelerate market efficiency.**
- Trades need to be displayed as soon as possible to allow the market to have a fair knowledge of the volumes, prices and to an extent how the identities of the involved parties relate (if at all) so that trades between entities with an existing (generally pre-assessment) association can be identified so these trades are shown not to be in a true market situation.
    - BCT has identified that trades information will not be made available until some months after the trade occurs, leading to a delay in market information (affecting **efficiency**) and potentially having an arm of government in a role of market suppression.
    - The costs associated with the assessment of a site by the Credit Supply Taskforce will remain commercial in confidence, but no information will be made available about those credits being assessed by in-house resources (including potentially the use of CST and DPE staff on some BSA-proposals to allow them to retain their status as Accredited Assessors) as opposed to those being assessed at commercial rates either by proponents themselves, or by the CST acquiring that expertise. **This will lead to market distortions driven by government involvement**.
    - While the CST role is in part to address market failure, there is still a lot of secretive information in regard to their operation. In particular, their coordination and discussion role with developers (ostensibly only once the project has been progressed through the parts of DPE that are involved in the assessment of those same projects) will give them a lead and potential sole role in sourcing those credits for those developers should the developers not be required to test the market for supply. **This is therefore potentially a direct market intervention by government that needs to be managed in another manner** (such as required use of the public registers identified above). It is also a means by which the developers are 'cost shifting' part of their core business (seeking prices for mandatory project inputs) onto the taxpayer.

IPART should also identify with DPE how it can be possible to operate the scheme without the current restrictions imposed on 'staff' through the protocol limiting the involvement of people defined in that broad and encompassing term as defined by that document. It must be noted here that – in terms of the department's protocol – staff includes anyone who is:

- On the DPE payroll or under contract
    - Also including contractors who work on departmental programs, projects and products that have any relationship to the BOS at all, including potentially the Saving our Species projects
- Volunteers to DPE (such as to NPWS)
- The family (including extended family) of anyone who meets the previous two criteria
- Associates of a person in the previous criteria from work or social situations.

This puts a burden on an enormous percentage of people in NSW, including the family members of offset-providers who may otherwise be contemplating a role in the department including any role where managing the environment is concerned such as ranger, field hand or even technical staff managing threatened species (of which they likely have extensive personal experience with effective management options). This protocol has essentially limited the capacity for family involvement through the agency to occur where any one of those family members takes on the desire to do something about conserving nature, rather than just be a spectator or a supporter for doing that. I know of no other profession where the conflicts are considered to be so extreme as to be unmanageable and therefore put under a total embargo. Lawyers and doctors can take a role in managing or owning a practice, and expect to profit from it, but a departmental employee who may have no direct involvement with the driving forces of the scheme (those being the assessment of offset sites or developments) cannot participate at all. There is no apparent reason for the department to be vehemently against allowing 'expert involvement'. It is patently ridiculous and may lead to the department having no experience with the implementation of the scheme except through the role of gatekeeper and assessor / reviewer – with my own experience showing that this lack of understanding of the nuances and implications of the scheme for the participants being unknown to those administering it.

Again, I thank the Tribunal for the opportunity to make this submission, and welcome any approach made to have an open and frank discussion of my experiences with it.

Yours sincerely

[redacted]

Greg Steenbeeke
[redacted]

Current employment: Principal Ecologist for Thesium Pty Ltd, a company servicing investors in future and ongoing biodiversity stewardship sites (established 2021) – currently 5 sites and nearly 2,000 ha. Providing contracting ecologist work (now not including any work relating to BOS as it is apparently an unmanageable Conflict despite being signatory to Codes of Conduct for the BOS and through the Environment Institute of Australia and New Zealand) through Thismia Pty Ltd, including the provision

of threatened species expertise to the DPE through an ongoing role in the Species Technical Group (experts for the Saving our Species program).

Stewardship Site Owner and Manager – 'Ermelo' stewardship (BA449) in the Richmond Valley of northern NSW. The site has met TFD, and currently is undertaking a Variation to add more credit species to the stewardship pool. 50 threatened species so far recorded from the property.

Former roles:

- Senior Threatened Species Officer, DECCW / NSW OEH /DPIE / DPE – responsible for the Cumberland Plain Recovery Plan and Accountable Officer for up to 62 threatened entities;
- Senior / Principal Planning Officer, NSW Dept of Planning – expert ecologist in the preparation of the Cumberland Plain Conservation Plan;
- Catchment Officer (Technical Advice) Border Rivers/Gwdir Catchment Management Authority – administering the Property Vegetation Planning (PVP) process and regional-scale funding and conservation programs;
- Botanist, Native Vegetation Mapping Program (NSW DLWC / DNR / DIPNR) based in northern inland NSW; Senior Project Officer (Vegetation Mapping) NSW DECCW (Western Blue Mountains mapping);
- Regional Vegetation Planner, Clarence Catchment (NSW DLWC)
- For others, see my LinkedIn profile.