

Submission
No 65

INQUIRY INTO INTEGRITY OF THE NSW BIODIVERSITY OFFSETS SCHEME

Organisation: Georges River Environmental Alliance

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Inquiry into the Integrity of the Biodiversity Conservation Scheme

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Introduction

This submission focuses particularly on a range of outstandingly flawed examples of Bio-certification Processes and the application of Biodiversity Offsets in western and south-western Sydney. The examples reflect the particular focus Georges River Environmental Alliance. They are thus drawn from the

- Headwaters of the Georges River and the adjoining drinking water catchments (Mining Offsets in the Southern Coalfields).
- The upper and middle reaches of the Georges River catchment and that of the adjoining Nepean Hawkesbury (The Cumberland Plain Conservation Plan, the Mt Gilead-Figtree Hill and the Moorebank Intermodal Offsets)
- The estuarine reaches of the Georges River (The Local Government example of Offsetting)

But firstly, to a contextual statement with respect to the current NSW government policy, approach and applications, overall.

There is significant and increasing groundswell of public opposition, wherever people are aware, and have any interest in the intrinsic and ecosystem values of nature, to the idea that it should be regarded as just a commodity, that can be assigned a dollar value, and just bought and sold. This idea has become so absolutely and destructively embodied by the current NSW government Policy, and Practises, notably represented by the current Offset Scheme. People are waking up to this dreadful swindle that, at its worst, it trades off nature, creating an immediate and often irreversible impact of the net loss of endangered ecological communities and species, without any clear and transparent evidence to the contrary. Even at its best, the trade is to save a patch over there, (that is not even clearly at risk) for the loss of known valuable patches here. That is always a net loss. Further if the patch saved, is not proximate to the patch lost, it can move a threatened species a step closer towards local extinction. When applied to a endangered ecological community, with a limited spatial range, like Cumberland Plain woodlands, a local extinction is a total extinction.

The worst current practice is the option of developer payments into the fund, termed the Biodiversity Conservation Fund, transferring responsibility for securing an offset to the BCT. This just allows for a pool of cash easily misallocated, or funnelled into dubious on-ground and research projects, that may achieve some long-term benefit, except that short term extinction, is the real and immediate catastrophe being rolled out. The Strategy is not based on 'good science' or research.

Any better scheme, would mandated seriously the 'Mitigation Hierarchy', whereby 'Avoid, Mitigate (or minimise), and Remediate (restore)' are all the pre-emptive steps in the process of managing threats to nature as a result of a development proposal. An Offset is the position of last resort if you truly care for nature, its sustainability and for the long-term prospects for human health, welfare, and the economy that depends fundamentally upon the resources it provides. It is ridiculous, and simply a bias towards development at any cost, that off-sets in NSW are the first 'go to' strategy rather than it being the non-preferred, option of absolute last resort.

The position we put reflects research, that recognises that Biodiversity Offsets do not serve nature well. After a global review, the researchers Brownlee and Treweek, found because of vulnerability and irreplaceability of affected biodiversity, and potential irreversibility of impacts, trade-off policies fundamentally are harmful, not just to nature, but also to human wellbeing. (Chapter 12, in R. Gibson, Sustainability Assessment, Routledge, 2017)

There are real problems around the subjectivity of the statistically derived calculator to arrive at species and ecosystem values. There is no trust in the system, where transparency is deficient.

Specific Examples of Offset Policy Failure

Offset failures with respect to Mining in the NSW Southern Coalfields.

GREA has a major concern for the Sydney Coastal Upland Swamps (a threatened Endangered Ecologic Community) of extremely limited spatial extent, limited to the Woronora Plateau, south of Sydney. The greatest cluster of those swamps are in the headwaters of the Georges River (in Dharawal NP) and the adjoining drinking water catchments of the Cataract, Woronora, Cordeaux, Avon and Nepean Dams, where they seep clean water continuously into our water supply sources, and support biodiversity. Past longwall mining consents have resulted in the cracking, draining and 'death' of many of these swamps. Dr Ann Young provides evidence of the ridiculous folly of applying offsets as a remedy for this. Since there are no alternative swamp sites out of the Coalfields, it becomes impossible to find a 'like-for-like' swamp offset, in the event of mining damage. Dr Young reports that in 1977, the Reynolds inquiry into Coal Mining under Stored Waters, to coal waste dumps being put onto swamps, and now

"Ironically, the washery waste dump site, (on Maddens Plains, to the east of Darkes Forest) is now part of land being transferred to (OEH) as a biodiversity off-set for Illawarra Coal's operations..." And

"There is a widespread cynicism about the effectiveness of the (offset) policy, because like-for-like offsets (swamps in un-protected areas that could be set against damaged swamps) are no longer available outside the mining lease areas on the Woronora plateau."

(p. 3 & 110, A Young, Upland Swamps in the Sydney Region Dr Ann Young, Thirroul, 2017.) This is an excellent case of how the avoidance of damage in the first instance is the best management option, as effective methodologies for swamp remediation do not exist, and nor do off-sets.

Far to the western edge of the Southern Coalfields, close to the rural villages of Douglas Park and Menangle, is an area also subject to the ongoing underground longwall coal impacts of a current huge scale project named the Bulli Seam Operations, by Illawarra Coal P/L a subsidiary of South 32, a global mining giant. There is a property here that has been bought by South 32 as a mining offset, as illustrated below along Menangle Rd.



The biodiversity offsets of mining company South32 at Menangle, Southwest Sydney offer an insight into the operation of the scheme in mining projects. It also highlights **problems with BAM 2020 making areas of actual biodiversity value ineligible for offsetting, the restriction of other conservation programs to encourage biodiversity offsetting** and the increasing problem of **landowners left owning unwanted offset sites** and the inevitable outcomes of that situation.

Lot 2/747563 Menangle Road is a unique property which supports the only large stand of old-growth trees in the SW Sydney region. The trees (indicated on the map) are located in a pasture context. Their hollows support one of the last regional populations of the endangered Squirrel Glider. South of the old-growth is a larger patch of denser regrowth vegetation, with only one old-growth tree.

In 2012 the land was privately owned. The landowner, who was moving to Queensland, approached OEH and requested the land be conserved in order to protect the unique old-growth trees. However OEH informed him that while they had the funding necessary, land purchase & reservation was no longer a priority and the only conservation mechanism they would fund was to BioBank the land. As the landowner was moving and needed to sell the proposed conservation of the land could not proceed.

Due to OEH insistence on biodiversity offsetting as the only valid conservation mechanism the lot could not be conserved and instead sold to the mining company Illawarra Coal (rebranded to South32) in 2010 for \$1.5M.

South32 own a portfolio of properties in southwest Sydney used for a range of mining and coal-seam-gas operations. Their use of the property was solely to provide access to the Southern Rail Line to undertake repairs made necessary due to mining subsidence. A worker at the mine was put on as a residential tenant and used the property for breeding horses, which soon began to ringbark the old-growth trees. To the tenant the old growth was a temporary nuisance while 'waiting for them to fall over in the next big storm'. The best example of old-growth woodland in SW Sydney was being ringbarked and left to die.

In 2018 South32 were forced to BioBank portions of their holdings to offset biodiversity destruction elsewhere. Management were bitterly hostile to establishing Biodiversity Offset sites on their land, and noted that '*OEH forced us to do it*'.

One of these unwanted BioBank sites was Lot 2 Menangle Road. However when the Biodiversity Assessment Methodology was applied to the property, only the young regrowth was eligible (i.e. generated cost-effective credits). In bitter irony, the resulting BioBank Agreement (BA00382) protected only the regrowth and none of the old-growth woodland. The population of Squirrel Glider, which nest exclusively in the excluded old-growth, generated credits for the regrowth area which adjoins it.

The tragic story highlights just how poorly biodiversity offsetting is operating in practice. We have an original landowner denied the opportunity to conserve their land, a 'conservation area' which the present landowner opposes rather than supports; an old-growth woodland which is ineligible for conservation; and a patch of regrowth which 'offsets' the clearing of woodland elsewhere.



The Cumberland Plain Conservation Plan (CPCP) an unacceptable approach to 'Offsets'

This so called 'Conservation Plan, that is proposed, is deceptively mis-named. It is actually a developer offset plan, which represents a net loss of nature, and does not reflect the 'like for like' principle. It will approve the loss of more than 1000 ha of Cumberland Plain woodlands for urban development and infrastructure projects, without the equivalent to be 'saved'.

These woodlands are already critically endangered with only 6% of the original forests still in existence. The extra amount to be removed is approximately 16% of the 6% that remains. That risks further 25 endangered plant species and 24 endangered fauna species including koalas, squirrel gliders, spotted-tailed quolls, swift parrots and glossy black cockatoos, found within this ecosystem. The CPCP will enable vegetation removal that will exacerbate the health risks associated with heat waves in Western Sydney. When a forest type is so endangered, there is arguably no real capacity to absorb a further loss of this degree.

The plan makes conservation outcomes conditional not guaranteed. Whilst developers will be given the certain right to destroy vegetation up-front, the degree and nature of their commitments to make conservation offsets is unclear, without specific targets and time-frames. As with the Western Sydney Growth Centres, the CPCP proposes to deliver outcomes based on budget capacity, rather than a firm requirement to meet Biodiversity Offset Scheme quotas and pay whatever is necessary. The firm budget allocation under this Offset Scheme to achieve Conservation outcomes is only \$84M and any future allocations totally unquantified. Prior estimates of what is

needed based on past offset prices is \$530M. So bushland is being undervalued to developer advantage. The CPCP must lock in a budget of at least \$540M up-front (as per Western Sydney Growth centres offset program), stage developments so that no new development happens until past offset commitments have been delivered.

The proposal uses loopholes in NSW law to **re-label existing public reserves as offsets** for developers. Public land should not be used for offsets under any circumstances because this does not achieve compensation for loss. The Plan commits to only one Conservation Reserve of 1885 ha for koalas at the extreme southern edge of the Cumberland Plain. However, 60% of that is not threatened land, it is already safe as Crown and DPIE Land. So, it is not compensation for the loss that is guaranteed. The remainder will not be dedicated now when it is needed, but will be gradually added over time, as developer contributions.

Likewise the CPCP uses Major Project loopholes to avoid like-for-like offsets. Some of the suggested off set land under investigation, meant to compensate for the loss of Cumberland Plain vegetation, is Sandstone vegetation, which is not endangered and thus not 'like-for-like' eg The Gulgur Investigation area.

Other land is used as offsets despite being under no risk of loss. An absolute developer 'gift' within the CPCP framework, under investigation, is the proposal to buy highly flood prone and non-developable parcel of land from a developer to create the Confluence Reserve, presumably to plant an offset forest, that will take decades to replace in any sense the mature, hollow bearing quality bushland to be destroyed elsewhere. This is not at all a strategic option with merit, it just really is a way of getting a developer who made a bad investment decision off the hook.

The CPCP highlights **the increasing clearing (re-offsetting) of existing conservation offsets.** One development within the CPCP - the Outer Sydney Orbital M9 - will slice through the middle of the bushland habitat of Wianamatta Regional Park, destroying its function as a wildlife haven. This reserve was previously 'saved', supposedly in perpetuity, as a biodiversity offset to compensation for the bushland that was destroyed when Ropes Crossing was built. Now just a few decades later it is likely to be sacrificed. That policy precedent could be applied throughout NSW to destroy any National Park.

The case of DA/2021/44/1, lodged with Wollondilly Shire Council by Walker Corporation demonstrates how the CPCP biodiversity offset arrangement will favour developers. It proposes to remove a third of the koala habitat on the site, located in the koala dense bushland near Appin, along Macquariedale Rd. At this time, when it is prior to the approval of the CPCP, (at the time of this submission) the developer would be subject to significantly large offsets. **The primary effect of the CPCP, when it is approved – the reason it exists - is to reduce the volume of offsets required.** This is the purpose of Strategic Assessment/Major Project Provisions. Under the status quo, Walkers would be required to provide considerable offsets, on private land. That is costly (although a drop in the bucket of their profits). Under the CPCP that quota of offsets will be vastly reduced, and many of them will be provided for through public land (including almost all the koala offsets). So, it is no surprise that Walker have declined to submit a BDAR (under the status quo) and are waiting on the CPCP to be released.

Finally, under the CPCP proposal There is **no coherent attempt to provide true connectivity** and corridors for biodiversity. (See Figure 12, which shows Strategic Conservation area in the Plan area, p. 38, The Draft Cumberland Plain Conservation Plan). Within this CPCP documentation, it is clear that many significant large areas will be stranded islands. As an example: Why isn't there a strategic connection being held or created between the southern end of the existing Western Sydney parklands through to Mt Annan and then onto Gilead. The CPCP biodiversity offsetting arrangements will not properly provide koala corridors across the whole of the landscape, it just locks one into the

south east section. This is despite the NSW Chief Scientists Report into the Campbelltown Koala population that there should be six east-west corridors.

References;

Draft CPCP, [https://shared-drupal-s3fs.s3-ap-southeast-2.amazonaws.com/master-test/fapub_pdf/00+-CPCP/edited_2.+Draft+Cumberland+Plain+Conservation+Plan+\(in+template\).pdf](https://shared-drupal-s3fs.s3-ap-southeast-2.amazonaws.com/master-test/fapub_pdf/00+-CPCP/edited_2.+Draft+Cumberland+Plain+Conservation+Plan+(in+template).pdf)

The Mt Gilead Lend Lease development-Figtree Hill

The Mt Gilead estate within the historic Macarthur region, consists of a homestead dating back to **1810**, farm buildings and a curtilage that has been described as ‘**superb and archetypal.**’ **It currently consists of a matrix of cow paddocks and koala bushland. Only 150 ha of the total 640 ha of the estate, will be conserved as a heritage item. It will be an island within a vast urban hardscape, that has been assessed as having the urban capability of as many as 10, 000 dwellings.**

The Mt Gilead property is also the **narrowest landscape** link (a gently sloping rural landscape), between the rugged sandstone and bushland gorges of the George’s River to the east and the Nepean to the west, with E-W connecting bushland patches and **corridors** for wildlife, most notably, **endangered species like koalas and squirrel gliders.** The NSW Chief Scientist (CS) recommended effective koala corridor widths of 300-425m. **Lend Lease staunchly refuses to deliver this standard.** These standards should have guided the provision of in-situ biodiversity offsets, but does not.

Beyond impacts on koalas, other losses for Stage One, Mt Gilead, include;

- The loss of undisclosed number of **Aboriginal** artefacts,
- Clearance of **endangered ecological community-Shale-sandstone transition forest** and nearly 400 **old growth paddock** trees, with nesting hollows. (one estimated at 600 years of age)
- **Draining** of 9 wildlife supporting dams, the de-watering and bulldozing and recontouring of the entire landscape, with the introduction of an elevation increase of 3 metres in some locations, with **soil impacts** like increased sodicity and salinity and **cumulative downstream runoff impacts** on Menangle Ck, the Nepean River and the heritage listed agricultural dam, believed to be the oldest in Australia.

Stage 1 of Gilead-Figtree Hill will be 1700 lots on 210 ha. It is already bio-certified. Stage 2 is being currently assessed. There is a maze of pending D/As and some approvals.

Stage 2 is the prospect of an urban footprint that could be 3 times that of Stage 1 and it will impact on 5 Endangered Ecological Communities (EECs) and 19 threatened fauna species including Koalas, Microbats, Powerful owls, Swift parrots and the Cumberland Plain land snail. Much of the attention has focussed on koalas, and their needs. Two of the other species particularly significant, as well, are the Squirrel Glider and the Southern Myotis.

It is appalling that only 5 targeted species of the 19, attract biodiversity off-set credits.

Consider the needs of a flora species that ‘cannot withstand further loss’

“Pomaderris brunnea, an endangered shrub, was observed at 10 locations across the BCAA with 253 plants recorded, and an additional five plants within the Sydney Water canal (Figure 15). The majority of plants were observed in areas of higher quality, ungrazed SSTF (vegetation Zone 13) or in steep, inaccessible areas along creek lines (Woodhouse and Nepean Creeks) and behind fencing (Nepean River and Sydney Water Canal) where domestic stock had limited access. Outside of these protected areas, plants showed signs of grazing pressure and where regeneration was occurring, plants were noticeably grazed/stunted.

Eight locations where the species was recorded, representing 246 individuals, are in proposed conservation areas and a further five individuals are within the Sydney Water Canal corridor and will not be impacted by the proposed development. Of the 6 plants impacted, 5 are within proposed APZ areas that will be managed as open space and it is likely that a number of these individuals and their habitat will be able to be retained during precinct planning. Only one plant will be directly impacted by road works.” (Ecological Australia: Mt Gilead – Biodiversity Certification Assessment & Biocertification Strategy, p. 108)

If there are 253 single individual plants on this property, and it is a species that ‘cannot sustain further loss’, why isn’t the proposal modified to guarantee the protection of all of them? APZs are managed by slashing and mowing, so that is no protection for a critically endangered plant.

The overall Gilead Offset Package is a fail as can be illustrated:

1. The offset package will transfer the care of maintenance of Noorumba Reserve, already an adjacent council owned reserve next door to the north, from the council to the developer. **This is a rort because it creates no replacement for what will be lost, nor represents additionality, as the reserve already is protected.** Further it will be retained as a recreational reserve, which does not prevent future clearance of koala bushland for other uses (eg sports fields). The deal satisfies council because it will **save them millions** in future maintenance expenditure (Webcast, Campbelltown City Council meeting 9/2/21) , but represents no real gain, or even a neutral impact, because conservation bushland and paddock trees, of value because of their scattered and old growth characteristics, are lost to koalas and hollow dependent species.
2. Similarly, the developer will take over the care of Beulah Forest Reserve to the south, which is also already a bio-banked site. **That is double-dipping.**
3. The developer will also establish a biobank and maintain it on the 150 ha State Heritage listed Mt Gilead homestead site, connected to Woodhouse Ck biobank. **This is double dipping**, as it already is ‘conserved’ by a legislative instrument, that is ‘State Heritage’ listing.
4. Another other site known as Medhurst, is **disconnected** with no corridor connectivity, so will not compensate for lost koala habitat.
5. Another biobank, known as Appin West, is actually **many kilometres** away near Douglas Park, and may be of some value to the Wilton Koalas, which are genetically distinct from the Koalas around Mt Gilead. The latter, relevant to this application, suffer a loss. Browns Bush is a biobank on the opposite of Appin Rd, arguably surrendered because it is non-developable in any case.
6. The 2 patches of in situ SSTF are **isolated** from each other and not part of a contiguous corridor, so that they are sterilized effectively from providing wildlife supporting habitat, there is no rationale for the boundary, as good habitat is outside the area, and will be cleared. The patches will be surrounded by housing and thus will suffer edge effects.

7. The Species credits, paid into a fund, may support research, but this fails the 'like for like' standard, and is not guaranteed to provide in-situ benefits.

References;

https://dictionaryofsydney.org/entry/appin_massacre

<https://changingcamden.com/2014/08/04/before-camden-aboriginal-heritage/>

<https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=1291064>

The Mt Gilead property is reputed to be implicated as a marching out point for the Appin massacre. The Stage 1 Master Plan was approved in 2017, <http://www.urbanalyst.com/in-the-news/new-south-wales/4565-rezoning-to-deliver-1-700-new-homes-for-greater-macarthur-area.html> , but with modifications has gone back into the gateway process, and has not been resolved. At council level, an Earthworks and Dam dewatering D/A was approved in July 2019, but has been modified. On 16/12/20 DAs were passed, by the Local Planning Panel, one for bulk earthworks, vegetation clearance and the dewatering of stream traces and 9 dams. The other for lot preparation for the first 333 lots for Stage 1.

<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Animals-and-plants/Biodiversity/Orders-register/mt-gilead-biodiversity-certification-assessment-report-and-biocertification-strategy.pdf?la=en&hash=421EC79F4A4034F5EF6AAEF78A8342C589B9D933> (Stage One

Mt Gilead Stage 2 Biodiversity Certification, Campbelltown City council website, Flora and fauna impacts, pp. 42 & 50. Statement of Commitments p. 125.

<https://www.google.com.au/amp/s/amp.smh.com.au/environment/conservation/scam-developer-to-use-parkland-to-offset-koala-habitat-destruction-20181028-p50cfz.html>

The Moorebank Intermodal and Moorebank Road Re-alignment

The Moorebank Intermodal is a major transport interchange on the banks of the Georges River, near Liverpool, transforming a 220 ha site into a harsh hardscape of bitumen, concrete, roads, rail and warehousing. The initial approvals were in 2016 for the Master Plan, and there have been a continuous stream of approvals for stages and modifications ever since. The local action group called RAID is currently involved in court actions, based on traffic and other matters. The bulldozing is only now devastating the landscape. Biodiversity loss and river Impacts are the major concern of Georges River Environmental Alliance.

The loss has been 48.7 ha of the total of 68 ha of various vegetation communities of the EEC Cumberland Plain woodlands, potentially 22 vulnerable and endangered species, including koalas, squirrel gliders, swift parrots, powerful owls and Regent honey eaters (pp.11-12, Parsons Brinkerhoff, <https://www.planning.nsw.gov.au/~media/Files/DPE/Special-projects/Moorebank-Intermodal/Other/moorebank-intermodal-terminal-biodiversity-offset-strategy-1.ashx>)

Here is a quote, that reflects the approach, that is particularly deplorable:

“In accordance with Section 6.5.1.13 of the FBA, two species, *Persoonia nutans* and *Grevillea parviflora* subsp. *parviflora* were identified as species that cannot withstand further loss on the Threatened species profile database. However, both of these species were also identified under the Species Recovery loss sheet, as being able to sustain loss within the Catchment Management Authority (CMA) of up to 10%, for a population greater than 500 individuals. “ (p.14)

This idea that the government proposes pushing rare and vulnerable species towards an extinction cliff edge is really appalling, and is justified, by the option of simply 'off-setting' for the loss. The Moorebank site is the only location of a population of a plant called *Hibbertia fumana*, thought to be extinct until it was re-discovered here, and only here.

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwimq-
i ueHuAhWbb30KHbB4BoYQFjAAegQIAxAC&url=https%3A%2F%2Fwww.afr.com%2Fcompanies%2Fhibbertia-fumana-court-case-overhangs-qubes-moorebank-freight-hub-development-20171024-gz6xxv&usg=AOvVaw1mOpu48DePPnF JbGMZixJ](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwimq-
i ueHuAhWbb30KHbB4BoYQFjAAegQIAxAC&url=https%3A%2F%2Fwww.afr.com%2Fcompanies%2Fhibbertia-fumana-court-case-overhangs-qubes-moorebank-freight-hub-development-20171024-gz6xxv&usg=AOvVaw1mOpu48DePPnF JbGMZixJ)

In order to supposedly to 'compensate' for these biodiversity losses, the offset package that was approved included the purchase of credits (wholly unacceptable) and three **areas of offsets**;

- Moorebank within the site- the Georges River riparian zone and an area dishonestly represented as bushland (p. 22, *ibid*, link above) It includes a large grassy area now of weeds, always known colloquially as the 'dust bowl' or the 'demolition area', as it was cleared and used for past military uses such as driver training and firefighting. The whole site has levels of contamination by materials such as hydrocarbons, lead, asbestos and PFAS and above safe levels of metals have been detected in this biobanked area. (<https://www.planning.nsw.gov.au/-/media/Files/DPE/Other/moorebank-precinct-west-stage-2-proposal-site-contamination-summary-report-2016.pdf>)
- The riparian zone is double-dipping, as according to the legislated DPI river set backs, of 40 m are required, anyway. (http://www.water.nsw.gov.au/__data/assets/pdf_file/0004/547222/licensing_approvals_controlled_activities_riparian_corridors.pdf)
- Casula site-across the river is not under any threat, as it is not used or required by the Army and the Liverpool Council intends to protect it anyway with a conservation zoning.
- The Wattle Grove offset, adjoining the development, but also not under threat at the time. It is otherwise known as the 'Bootlands' and is a mix of koala bushland and wetlands. It is the one worthy off-set.

None of these 3 represent any additionality, so the loss is a net loss, as these are essentially already 'reserved'. The offset simply involves the management and care-restoration of what already exists. The best quality bushland, was removed, with no attempt to conserve it, and develop the infrastructure footprint around it.

In 2020, it was proposed that in order to provide superior access to the Moorebank Intermodal, the feeder road, Moorebank Ave, already a known koala roadkill hotspot would be amplified in size and re-routed through the previously set aside offset, the 'Bootlands'. It appears there is no such thing, as a koala off-set 'in perpetuity.'

<https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=PDA-1585%2120200624T040544.492%20GMT>

Biodiversity Offsets within Urban Bushland -Local Government Areas (LGAs)

It is important to consider the impacts of biodiversity offsets, in LGA's that have pockets of very significant urban bushland of conservation significance and the presence of threatened species. One such example, is Georges River LGA. Even though it has proximity to the Sydney CBD, its topography and river edge has allowed the preservation of bushland and biodiversity, now under increased threats as urban density intensifies and particularly threatens the continued viability of its old, large and significant indigenous trees. Many of these are on private land zoned 'developable' and subject to reduced lot size. These trees are often the connective corridors, and additional feeding, roosting and nesting for 2 endangered species, recorded locally, the Powerful owl and Grey headed flying fox.

The council has a Biodiversity Offsets Policy, that in application, permits tree removal, in exchange for the replanting of smaller shrub and smaller trees in-situ, diminishing the canopy cover, and nesting and foraging opportunities for the significantly diverse fauna, including threatened species, still present. Furthermore, when council determine cash off-sets, for tree removal on private developments, replacement planting is then initiated off-site in public reserves, not necessarily because it is of a nature benefit, but appears instead the expedient and beatifying option. The Council Offset Policy, is based on a biodiversity map, that does not identify, nor appears to match, sites of endangered species presence, specifically the roost of the Grey headed Flying fox colony and the nesting sites of the Powerful owls.

References;

<https://www.georgesriver.nsw.gov.au/ENVIRONMENT/Biodiversity>

<https://intramaps.georgesriver.nsw.gov.au/intramaps80/?project=BOS>

Postscript: Biodiversity Offsets creating new marketing opportunities.

There is the question as to whether the current system creates better business opportunities out of biodiversity, rather than primarily serving the interests of nature first. This would be an undesirable outcome.

There are also the issues that have been raised about what may be perceived as being improper dealings, when close links and interchanges, a 'revolving door', between developers, governments and consultants, are in play. These issues have been canvassed with these Guardian newspaper articles this year, and by the Centre for Public Integrity: examples;

<https://www.theguardian.com/environment/2021/feb/10/its-an-ecological-wasteland-offsets-for-sydney-tollway-were-promised-but-never-delivered>

<https://publicintegrity.org.au/deeply-concerning-government-consultant-made-millions-from-nsw-environmental-offsets/>

With respect to consultancy and the 'revolving door' metaphor (whereby technical experts in their careers, move between academia, government policy roles and private industry and consultancy). I do understand that 'upskills' them, and that can have broad benefits, to the individual and learnings of all the institutions involved. However it also leads to the conditions that could be perceived as trending towards 'cultural capture' (See note 1 below) and definite conflicts of interest.

Here is something, supplied to me by a colleague, that may be a case of capture or conflict, but certainly creates a perception of bias.

'Ecological (the environmental consultancy) has acted for Lendlease the developers of Mount Gilead, State and Federal Governments including assessment of the EPBC Act and issuing of Bio

Certification Credits for at least 5 years which does suggest a conflict of interest may have been instigated.’ (Pat Durman, Wedderburn). With respect to biocertification and offsetting, there are examples of personnel, who have moved backwards and forwards between employment within OEH, DPIE , private consultancy and development companies, which may result in the latter having access to what almost amounts to ‘insider’ information.

Conclusion

Overall, I think both at state and federal level, our system is one of ‘regulatory capture’ when it comes to environmental management. The Framework for Biodiversity Offsetting, has demonstrated the ‘window of opportunity’, for corporate entities to have insight, through personnel interchange, and to have influence in the shaping of such schemes. The issue is, not necessarily to exclude this, but how can the other perspective, the representation of the interests of nature, and the interested general public, also be included?

Note One:

The hypothesis of ‘regulatory capture’ presented by MacLean, who provides this definition; ‘the result or process by which regulation, in law or application, is consistently or repeatedly directed away from the public interest and toward to interests of the regulated industry, by the intent or action of the industry itself.

MacLean’s analysis is built on a review of other theorists and his study of forestry and extractive industries in Canada. He attributes law inadequacies to discretionary language, lack of oversight, failure to reflect contemporary knowledge advancements, the institutional obstacles of bureaucratic inertia and regulatory capture. He identifies other various types of capture including corrosive capture which is characterised as de- regulation, coercive capture that occurs where industry threatens legal retaliation or predicts catastrophic economic consequences and cultural capture where there is either or both close ideological and institutional identification of the regulator with the regulated industry. ‘