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23 March 2012

Submission – Gateway WA Perth Airport and Freight Access Project , Public Environmental Review, under *EPBC Act 1999*

Dear Ms Napier

The following is a submission regarding the Gateway WA Perth Airport and Freight Access Project - Public Environmental Review – presented by the Urban Bushland Council WA Inc. The Urban Bushland Council (UBC) is a peak community conservation body with over 60 member groups. The council encourages the protection and appropriate environmental management of bushland areas in and around the Perth Metropolitan Area and other urban centres in WA. The council participates in research and community education projects and has been active since the mid 1990's. The UBC has extensive community contacts and has recently established a high quality website which is proving very popular and extending the Council's reach and influence.

The UBC had a representative attending the Gateway Vision group's Environmental Reference group and it would have to be said that the Council has seldom approached a development proposal whose proponents were more confident of gaining environmental approval for their project. With State and Commonwealth governments both promoting the broader road planning concept their confidence would appear to be well-placed but however inevitable the eventual green light for the proposal per se might appear to be, it is our very strong view that the planning documents should show evidence that every effort and capacity has been utilised to reduce its environmental impacts and possibly bring some positive environmental outcomes as well. Our first preference of course is that the proposal is found to be environmentally unacceptable and does not go ahead.

It is the Urban Bushland Council's very strong view that this proposal involves very significant environmental impacts and that as a consequence the planning processes associated with these massive road and associated infrastructure constructions should be as environmentally enlightened and sensitive as is attainable applying current knowledge. Because major road construction projects through bushland areas always involve a certain amount of habitat loss, there can be a tendency for planning documents to concentrate on the provision of environmental offsets rather than on the impacts of the proposals in situ.

However, the UBC expects to see details of how the proponent proposes to avoid major potential impacts in situ as there are many potential environmental problems that may well be avoided or mitigated with appropriate planning and many problems that can be created or exacerbated with unmindful planning.

The Urban Bushland Council has many difficulties and objections to the employment of "environmental offsets" in environmental assessment processes and fundamentally opposes the concept as offering almost universally poorer outcomes for the environment in general than leaving an original habitat area intact. So-called offsets virtually always produce a net loss of habitat and, to make things worse, the concept has largely been administered and applied so carelessly and inappropriately that potential opportunities for some degree of practical environmental compensation have often been squandered. The UBC lodged a submission regarding the Commonwealth's *Draft Environmental Offsets Policy* in October 2011, and was pleased to see that some attempt was being made to bring the employment of offsets into some kind of formal framework aimed at improving their efficacy and credibility.

The Council is not satisfied that "offsetting" is an environmentally favourable concept and will probably only ever see it as a strategy of last resort. And if some component of "offsetting" is required for unavoidable impacts from imperative projects then we would want to see a great deal more discipline exercised by supervising authorities to ensure net environmental gains — and we do not mean simply changing land tenures — are actually realised. There is a certain ridiculousness inherent in regarding the acquisition and formal reservation of a piece of habitat that could not be legally cleared anyway —and which the acquiring agency does not have the resources to manage anyway — as a suitable compensation for clearing a portion of the habitat of a species that is desperately short of habitat in the first place. This practice comes under the definition of "offsetting" and the UBC views it as ludicrous and environmentally destructive.

More specific comments on the subject matter of the Public Environmental Review document will be set out more or less in accordance with the layout of the text.

Introduction (p.1)

Road traffic is not an area in which the UBC claims any expertise but it would seem Perth Airport is more often cited as a transport problem than as a transport solution. The Council is aware the privatisation of the airport in the late 1990's triggered a great deal of sub-leasing of airport land to a wide variety of businesses – many unrelated to aviation - and that this greatly increased traffic flows into, out of, and within the airport regardless of any increase in aviation-related traffic. Increases in aviation-related traffic have made the airport a problem not only for air travellers, but also for airport land leaseholders, and for traffic that has no link to the airport whatsoever. Now the taxpayer, through the agency of Main Roads, is going to foot the enormous bill for solving problems created by the airport. It is all suggestive of very poor long term planning and although the UBC has no particular expertise in urban planning it would seem to us that it would be better if Perth Airport had never been privatised – it appears to have nothing but critics – and that it should have been relocated to a place where it would not create such congestion and such obstruction, and such urban blight as is caused by constant aircraft noise, and where its expansion would not cause such harm to the natural environment, and where aircraft were not exposed, at times, to such dangerous wind conditions.

Nevertheless, the regrettable fact is that the airport remains in its current location. It is not only plagued by internal traffic problems but has created some outside of its boundaries as well. The UBC is not sure why the taxpayer should fund the construction of enormous roads into the airport, and even within the airport, when the airport leaseholder – a private business – is the major financial beneficiary but that is down to the wisdom of our political representatives.

The UBC has long taken a close interest in the conservation and appropriate environmental management of the remnant natural areas at Perth Airport and the Council has lodged numerous submissions on Draft Master Plans, Draft Environment Strategies, and Major Development Plans. The Council has never been satisfied that its views have been taken into account in these public submission processes and Perth Airport, in our view, is one of the more unsatisfactory conservation stories of the last decade and a half as far as the Perth Metropolitan Area is concerned. Massive clearing of bushland, including banksia woodland, for non-aviation related sub-leasing has deprived such species as Carnaby's Cockatoo of invaluable feeding habitat as well as destroying high quality vegetation and habitat that is found nowhere else other than on the Swan Coastal Plain. The Gateway proposal has emerged in this context and it remains to be seen whether it is just another unfortunate chapter in the environmental ruin of Perth Airport and its environs, and the native species which utilise the area.

The UBC notes that Gateway WA's "primary planning objectives" include "9. To result in a net environmental gain through enhancements and appropriate environmental offsets" (p.1). This is a worthy goal but the Council is unconvinced it can be achieved. The UBC notes that WAC has been permitted to refer to the taxpayer-funded PER as a substitute for the environmental component of a Major Development Plan but again questions why taxpayers are footing the bill for what is largely an airport project's planning.

2.2 Alternative Options Considered (p.7)

Community groups are generally at a significant disadvantage when engineering and construction options are being canvassed and cannot even be confident that some options are not put up simply for tokenistic purposes. It seems that proponents are generally required to list a number of options to create the impression they have chosen the least environmentally adverse one but without a great deal of data and engineering expertise any ordinary submitter is really unlikely to know whether other more environmentally acceptable options were feasible but simply avoided by the proponent. Making the proponent's preferred option look favourable by putting up absurdly inappropriate options as alternatives is a practice people unfamiliar with road and bridge construction would hardly be likely to detect. We would simply put the view that, from experience, we generally regard these "presentation of options" components of environmental review documents with considerable scepticism. We make no accusations but the Council has no doubt more environmentally acceptable options are often omitted from review documents to suit the proponent's own purposes and the pretence of selecting the lesser of three of four evils when the evils are all of the proponent's making does not do much for the integrity of the review process.

The UBC's preferred option for any construction is for construction that has the least environmental impact on natural ecosystems both in the establishment phase and in an ongoing sense. The Council's preferred option for construction in this case is that it affects as little natural habitat as possible and that special design features are incorporated to reduce the

environmental impacts on the natural environment of the roads and associated infrastructure into the future. The road and bridge structures obviously supplant native vegetation but the impacts on the natural environment are more thoroughgoing than direct loss of habitat. There is a major problem with physical barriers to the movement of wildlife and a major problem with the threat road traffic poses to wildlife, for example. These and many other matters need to be addressed carefully. The Council is disappointed at the lack of acknowledgement in the PER of these difficult problems, let alone the dearth of real solutions it offers.

The UBC acknowledges that the proponent has utilised an apparently methodical process for evaluating options but it is so multi-factorial and, in many cases, so apparently subjective — with its attributions of various qualities and weightings etc, that it looks like an attempt to provide a credible mathematical solution to what is really a complicated value judgement problem. Put simply, if the criteria and their ratings and weightings are disputed, then the overall conclusions have to be disputed and it is possible that a common sense global perspective might produce better outcomes than breaking the process up into many possibly contentious components for the sake of appearing to be scientific and objective and informed by quantitative methods. Gateway's Environmental Reference Group had some involvement in establishing environmental criteria and weightings but at short notice and in a relatively brief time frame — further complicated by a limited overall perspective on how the full evaluative process would be structured. Nevertheless, of the options presented, it is probable that the options selected in the PER are the least environmentally destructive. We cannot definitively say that they are so because our resources and information are insufficient and to a certain extent we are in the position of having to trust the proponent's judgment.

2.3.3 Reference Groups (p.14)

The UBC had a representative on the Environment Reference Group and it is desirable for such large projects having significant environmental impacts to include such community input. Compared to other very large development proposals of interest to the Urban Bushland Council that have been presented in relation to the expansion of Perth Airport, the consultation for the Gateway project has been more extensive and environmental issues appear to have been considered in greater detail. However, the UBC's volunteers, who attend meetings of this kind, frequently find important matters they have raised do not find their way into the minutes of the meetings and if they do appear they are often massaged or abbreviated so that the central point is lost. This is not peculiar to this project or to Main Roads WA but the integrity of these processes has to be called into question when issues raised are not properly recorded let alone considered after the meetings. UBC representatives attended an Environmental Reference Group at Perth Airport for some time but it become apparent that it was a waste of time. No assurances would be given that matters raised in meetings would be addressed, important issues raised did not appear in the minutes, meeting time was monopolised by leaseholder presentations, important and highly pertinent information about impending projects was not brought up, the leaseholder's representatives were insufficiently influential to achieve anything of substance, and it became apparent that the Environmental Reference Group existed largely for the purpose of the airport leaseholder being able to claim it had an "Environmental Reference Group."

Genuine community conservation people resent being used in this fashion and unfortunately the organisations that run such sham consultation meetings can later point to a "low level of community interest" when frustrated attendees withdraw. Another feature of these meetings are the government employees who attend but make no contribution at all to the proceedings

and show no evidence of engagement with the process – by taking notes, for example. Regrettably, their attendance adds a certain – albeit illusory - gravitas to meetings that are often empty of real purpose and entirely perfunctory in nature. Consultation is usually better than no consultation but these meetings would have more integrity and credibility if an independent third party chaired the meetings, recorded the proceedings accurately and in detail, and prepared the minutes.

The UBC accepts Main Roads WA has made some effort to consult for a project which has had strong political backing from the start and which will inevitably have some very undesirable environmental impacts. But references to environmental consultation meetings frequently appear in such documents and it is appropriate that the Council registers its view that participation in such processes is often very frustrating. Worthless verbal assurances are another bugbear and government/corporate standards seem to have dropped so badly over the past decade that even writing to a person, or group, our representatives have met with asking them to confirm they gave such and such an undertaking or assurance is unlikely to elicit a timely or appropriate response - let alone a confirmation.

2.4 Other Approvals and Conditions (p.23)

State Environmental Assessment Processes

The UBC broadly agrees with the advice provided by the WA Office of the Environmental Protection Authority and it encapsulates some of our major concerns. We agree strongly that:

- 5. The final layout of the roads shall be designed to avoid, minimise and manage potential environmental impacts and that:
- 6. Clearing should be constrained to be the minimum required for construction and the proponent should utilise previously disturbed areas for materials storage, laydown areas and turning points and that:
- 9. It is understood that public consultation will be undertaken regarding the finalisation of the design. This consultation should include a discussion of environmental issues. It is expected that a record be kept of the issues raised and how the final design has changed to incorporate these issues.

This final advice is pertinent to the comments we have made regarding public consultation. During Gateway Environmental Reference Group meetings our representatives raised numerous concerns about offsets and their appropriateness, about the on-going impacts of roads and traffic on fauna populations, about physical barriers to fauna movement that might be created, about drainage issues, and regarding the somewhat altered circumstances that pertained after the Tonkin/Leach Highway project area was subject to a very large fire, for example. We have seen no evidence that such concerns were recorded. They did not appear in minutes of the meetings and are not addressed in the PER.

3 Description of the project (p.25)

Road layout

It is disturbing to see in the document the claim that "road design is not detailed at this stage" (p.25). The UBC has numerous concerns that are tied up with the final design of the roads and while it is stated that all "likely road configurations, ramps, bridges and widening zones have been included in the impact assessment footprint," the Council is very concerned about other features such as "noise walls, retaining walls, embankments, drainage piping and basins" which do not appear to be discussed in the PER in any detail at all. These features are very pertinent to the physical barriers and hazards that fauna will face from the total infrastructure assemblage when completed and we would have expected more detail in the PER on how fauna movements and hazards are to be dealt with in planning. The project takes in some very environmentally valuable areas and planning must be undertaken to prevent developments becoming a major impediment and hazard to uncommon, threatened or vulnerable fauna species in particular.

Barriers to fauna

At the meetings of the Gateway Vision Environmental Reference Group various graphics and artistic impressions of road and infrastructure planning concepts incorporating such features as "noise walls" were presented and the UBC representative raised concerns about the potential of such structures as "noise walls" to form impenetrable barriers to the movement of terrestrial fauna. One of the serious threats to native fauna populations maintaining a foothold in urban areas has been identified as the "impermeable landscape" (M. Bamford pers. com., Bamford Consulting Ecologists March, 2011) wherein native animals that might otherwise survive in an urban environment are simply prevented from being able to move throughout the landscape by so much of our built up infrastructure whether that be fencing around suburban blocks, or major roads, or retaining walls, or vast tarmac areas - such as car parks, or buildings. It is now often the case that freeways and major highways will have large permanent safety barriers between opposite lanes and even on their verges. These structures may enhance safety for humans but for many species of amphibians, reptiles and small mammals they are completely impenetrable barriers. These native animals need to be able to move throughout the landscape for many reasons – to locate appropriate food and water sources, to find appropriate shelter, to avoid areas dominated by predators or other hazards, to maintain genetic diversity, and to expand their populations. The Urban Bushland Council insists that this must be a major consideration in the final design of the Gateway vision roads and associated infrastructure. This means preventing the establishment of faunal barriers – unless they are part of a strategic plan to direct fauna to special tunnels or even bridges that will allow them to move through the landscape without harm.

It is the UBC's view that the deleterious impacts of roads and associated infrastructure on remnant fauna habitat are generally insufficiently acknowledged. It is a sad fact that roadside vegetation is virtually the only indigenous vegetation left in significant areas of Western Australia, such as the wheat belt, and even in the urban environment. While the protection and enhancement of this vegetation is, of course, desirable, the exposure of native fauna that requires that habitat for survival, is, simultaneously threatened by problems brought by the road itself. The obvious problem of road traffic striking animals and birds either crossing the roads, or feeding or drinking on or near the roads, makes them a major hazard but additional risks caused by proneness of roadsides to accidentally ignited fires and arson, rubbish dumping and weedicide applications makes them even more problematic. Safety barriers, sheer retaining walls, and noise barriers can also make roads major environmental obstacles to faunal movement. The Urban Bushland Council insists that the proponent must incorporate design features that facilitate the safe movement of fauna to and from

bushland areas otherwise divided by the roads and associated infrastructure. Some smaller reptilian fauna - notably juvenile snakes and small legless lizards - cannot even climb normal road kerbs and end up being eaten by crows or dying of dehydration – if they survive the road traffic. The same can be said of tortoises and a wide range of invertebrate fauna as well. It is not good enough to claim the actual foot print of the road construction has been minimised – the on-going impact of the road must be minimised.

4. Environmental Values (p.26)

Wildlife corridors

Each of the proposed Gateway Vision interchanges along Tonkin Highway, with the exception of the Horrie Miller Drive interchange, impacts directly on good quality native habitat and the Tonkin/Leach and Tonkin/Roe interchange areas have some particularly outstanding environmental values. Even the Tonkin/ Horrie Miller interchange impacts on the existing and potential capacity of Tonkin Highway and Horrie Miller Drive to act as wildlife corridors between areas of very high conservation value. **The narrow strips of indigenous and native vegetation along busy highways** are in many ways very undesirable wildlife corridors **but** when they offer all there is in the way of a relatively unbroken passageway of potential linking habitat between more significant reserves, **they take on a particular significance**.

Tonkin Highway runs south from the Swan River, a very important wildlife corridor itself, past the western side of Perth Airport (Bush Forever Site 386), past Dundas Road Bushland (Bush Forever Site 319), through Hartfield Park Bushland (Bush Forever Site 320) and then past the Greater Brixton Street wetlands (Bush Forever Site 387), which in turn links – almost directly – to the Canning River Regional Park and Adjacent Bushland (Bush Forever Site 224). The Urban Bushland Council has long maintained that Tonkin Highway not only functions as a wildlife corridor but that it should be developed as such over the coming decades.

The Council is fully aware that some of the roadside vegetation is planted native but not locally indigenous vegetation, some of it is planted indigenous vegetation, and some of it is indigenous vegetation in poor condition. Along some parts of the highway the vegetative cover is rather sparse on one or both sides of the road but there is still a great deal of potential for this road traffic artery to be enhanced so as to increase the capacity of the urban environment to maintain some vital faunal linkages. The UBC has argued this point before in other submissions relating to proposals impacting on reserves adjacent to Tonkin Highway and this is the context in which we view the Gateway Vision project.

Vegetation condition

The UBC deplores the tendency of proponents to dismiss the environmental values of urban remnants they classify as "disturbed" in condition. It is galling to see proponents attempting to gain an advantage from their own failure to manage the land under their ownership or control in an environmentally enlightened fashion. If parts of the otherwise magnificent bushland remnants in the vicinity of the corner of Tonkin and Leach Highways, for example, resembled a rubbish tip, before a major fire consumed the area earlier this year, it was not because the UBC failed to fence it, or to clean it up, or to warn offenders, it was because Main Roads WA allowed the area to be used as such through neglect. In any case, "pristine" indigenous vegetation can hardly be expected to exist in the largely urbanised parts of the metropolitan area and it is our strong view that **single indigenous trees are important**

features of the current landscape let alone bushland that is allegedly dieback-affected or in which there are signs of weed invasion. Perfect native habitat no longer exists and much that should be saved is not in good condition at all. Even with current technology significantly disturbed bushland areas in an urban setting so heavily cleared as Perth are well worth protecting, and future improvements in our capacity to manage environmental problems through breakthroughs in disease, weed, and feral predator control are not an unrealistic expectation.

Threatened species under EPBC Act

The *PER* refers to several fauna species listed as threatened under the *EPBC Act* that may or may not occur in the general area of the project. The UBC is aware that both Carnaby's Black Cockatoo and the Forest Red-Tailed Black Cockatoo definitely occur in the project area and its environs but is not sure whether Baudin's Black Cockatoo or the Graceful Sun Moth occurs in the area.

Western Swamp Tortoise: The UBC would also point out that in 1969 the only specimen of the Western Swamp Tortoise (*Psuedemydura umbrina*) ever collected south of the Swan River was found in an area more or less within the proposed Tonkin/Leach highway interchange project area. There was probably a better expanse of habitat and more appropriate seasonal wetland habitat in the area in the late 1960's and the area has undergone some landscape modifications and drainage since that time but it is our strong view that the finding of a species so endangered, so desperately short of appropriate habitat for re-introduction to the wild, and so presently lacking in genetic variability, should be acknowledged in this document. *It is not impossible that this species still occurs in low numbers at Perth Airport and our representatives have had personal communication with people who believe they have seen it on airport land in the past. The species is very hard to find when it exists in low numbers and it can always use the airport's drains for winter water if seasonal wetlands fail to fill up sufficiently in dry years.*

Carnaby's Cockatoo is a very familiar visitor to the bushland at Perth Airport and has probably been visiting the area's woodlands for centuries. The UBC' representatives have certainly observed the bird as a common visitor to the airport's banksia woodlands for decades. The value of the banksia woodlands at Perth Airport as feeding habitat is indisputable. The UBC has been making this point to the Commonwealth in submission processes for many years to very little avail. It has been extremely frustrating to see the Commonwealth approving the clearing of large areas of banksia woodland at Perth Airport, and even at Jandakot Airport, over the past decade as it has been known for many years that Carnaby's Cockatoo is dependent on such woodland habitat for much of its food resources when it moves out onto the Swan Coastal Plain during the Autumn and Winter months.

The Forest Red-tailed Black Cockatoo is probably more in danger of extinction than Carnaby's Cockatoo – being a less prolific breeder and probably a more specialised feeder than the latter. The species presents some very challenging questions as far as the identification of its range and feeding habitat is concerned as its seasonal movements have changed dramatically over a relatively short period of time. Up until a few years ago the Forest Red-tailed Cockatoo would rarely have been sighted at Perth Airport or in the adjacent suburbs on the western side of the airport away from the Darling Scarp. But in the last few years the species has moved out into the suburbs of Perth and is very often seen feeding on the berries of the Cape Lilac Tree (*Melia azedarach*). Importantly, the species has also taken to feeding in remnant bush blocks on the Coastal Plain – utilising such species as *Eucalyptus*

todtiana (Prickly Bark), Eucalyptus calophylla (syn Corymbia sp.) Marri, Eucalyptus marginata (Jarrah), and Allocasuarina fraseriana (Sheoak).

Abrupt behaviour changes: The salient point here is that there has been a rather abrupt change in the range and feeding habits of the Forest Red-tailed Black Cockatoo. It is difficult to interpret this in any way other than to conclude the species has been under stress in what is considered to be its more habitual range. The 2010/2011 saw the Perth area, and the southwest in general, experience some of its lowest winter/summer/autumn rainfall totals on record and a great many indigenous trees in the Perth Metropolitan Area and out into the forests either died or suffered very obvious drought stress. Whether the drying trend noted in the southwest is putting pressure on the Forest Red-tailed Black Cockatoo or whether it is the cumulative affect of logging, mining, tree pathogens, and competition for nesting sites or various other factors, the species would appear to be under significant stress. Reports we have heard suggest the birds are often malnourished and prone to such hazards as being hit by cars in the urban environment.

But if the species chooses to move onto the Swan Coastal Plain it can only be concluded that the habitat to which it would appear to be more accustomed is somehow declining in its capacity to support it. This would make remnant habitat on the Swan Coastal Plain all the more valuable for the conservation of the species. While the species does show a particular liking for the fruits of the exotic Cape Lilac tree, it also visits remnant bushland and will feed on the fruits of *Eucalyptus todtiana* and *Allocasuarina fraseriana*, for example, for hours every day and for weeks on end in relatively small suburban bush blocks.

The PER appears not to distinguish between the feeding habitat requirements of the Carnaby's Cockatoo and the Forest Red-tailed Cockatoo in its identification of "Cockatoo habitat." It is our observation that, on the Swan Coastal Plain, Carnaby's Cockatoo has a marked preference for feeding on proteaceous species from such genera as Banksia and Hakea, whereas the Forest Red-tailed Cockatoo exhibits a preference for feeding on Eucalyptus species and Allocasuarina fraseriana. The consequence of this distinction is that it is unsatisfactory to simply classify areas dominated by proteaceous species, usually Banksia spp., as "Cockatoo habitat" and to discount the rest. The Red-tailed Cockatoo has been seen feeding on the fruits of Eucalyptus rudis (the WA Flooded Gum) and even those of the non-indigenous Eucalyptus citriodora around Perth in recent months, and it may be that the birds are simply trying different foods out of hunger. It is concerning to see Redtailed Cockatoos flying around Perth in very small flocks and lone birds that appear to be distressed or somehow lost are also occasionally seen. It is for this reason that we find Figure 3 and its identification of "Core black cockatoo feeding habitat" unsatisfactory. It is our strong view that any native woodland in or around the proposed footprint of the project should be classified as feeding habitat suited to either Carnaby's Cockatoo, or the Red-tailed Cockatoo, or both. Even dampland areas dominated by ti-tree heath have some plant species that can be utilised by Carnaby's Cockatoo, including Hakea varia, and Banksia littoralis. Thus all these dampland areas must be considered as significant black cockatoo habitat.

Furthermore, both of the aforementioned Cockatoo species are relatively large birds and they generally do not gain elevation quickly when taking off. The birds will at times feed in low branches and on fruits that have fallen to the ground. They prefer to take off into the wind and the low, and relatively slow, flight that typifies their initial take- off makes them very susceptible to being hit by road traffic. Consequently, where traffic hazards are likely to exist,

any buffering vegetation around the habitat that might be seen as optimal for feeding would be so desirable as to count as important habitat in itself. Their habit of feeding on the ground, and their relatively slow take-off, also makes them susceptible to attack by dogs in suburban parks. If the birds persist with the urban expansion of their range, threats like this may further jeopardise their future. At present, the Red-tailed Cockatoo, in particular, is giving every indication of being a species under stress and it is the UBC's very strong view that **urgent** action must be taken to determine whether the species is undergoing a catastrophic decline. It is unacceptable that the Red-tailed Black Cockatoo and the other Western Australian Black Cockatoo species have been losing numbers over an extended period but the strange recent urban expansion of the Red-tailed Black Cockatoo's range acts as a warning sign that things are amiss in its more traditional haunts. The UBC deplores any further clearing of habitat that might be utilised by any of the three Black Cockatoo species and objects to nit-picking and probably scientifically invalid attempts to divide natural remnants into "core" and "non-core" habitat areas based on out-of-date records of migrations and feeding behaviour. The UBC strongly recommends that advice on this matter be sought directly from Ron Johnstone, Curator of Ornithology, WA Museum.

4.1.1 Fauna

Carnaby's Black-Cockatoo (Calyptorhynchus latirostris).

Distribution, Ecology and Habitat (p.26)

It is widely accepted that Carnaby's Cockatoo has had most of its natural habitat cleared since European settlement and that it faces problems not only in finding suitable breeding trees and habitat but also in finding suitable feeding habitat per se. One of the difficulties that species faces is that in its normal breeding areas in the WA wheat belt, even where suitable breeding trees may remain, the birds have trouble sustaining themselves and their young because of the lack of feeding habitat available in a generally ecologically **impoverished landscape**. With this being the case it might be expected that the species would begin trying to breed in areas closer to adequate food resources. The PER notes that " in recent years the species has been observed breeding in Tuarts in the Mandurah area." This Coastal Plain location is far removed from the typical breeding areas of the wheat belt and it should be anticipated that Carnaby's Cockatoo may begin using the Swan Coastal Plain region as a breeding area to a greater extent in the future for the simple reason that there are likely to be more food resources available for the raising of young in the more heavily vegetated portions of the Coastal Plain and in the nearby Darling Range. It is true that the massive old trees that are usually required to provide the nesting hollows of the species are now scarce even on the Coastal Plain, but there has been some success in attracting birds to nest in modified PVC pipes ("Cockatubes") in less aged and scarred trees - especially in areas where the birds are wont to breed naturally.

The salient point is that Carnaby's Cockatoo is likely to turn to the Swan Coastal Plain as a refuge for breeding, given that its more typical breeding areas have lost much of their feeding habitat and given the strong drying trend — widely presumed to be associated with the larger climate change phenomenon — observed over some decades in the south west of the state. It should be noted the general climatic pattern is for annual rainfall figures to diminish with greater distance inland. If the Coastal Plain does become more of a breeding area for the species, then the region's existing bushland remnants would take on an even greater conservation significance. This is not a far-fetched prospect and it is in this context that we regard areas such as the wooded areas of Perth Airport and nearby remnants

as being so important. All mature old trees (>100, 200+ years), especially Marri, even in degraded areas should be retained and protected. It takes more than 200 years for hollows for nesting to develop and these cannot simply be 'offset'.

Known Threats (p.27).

The PER does not devote much attention to the matter of threats facing Carnaby's Cockatoo and does not mention hazards borne of its interaction with the modern world including being hit by vehicles, being shot by orchardists, and being poisoned by agricultural chemicals. Surprisingly large numbers of the birds are struck by vehicles and this should be taken into account in assessing the likely impact of the Gateway Project, which basically involves building major highway infrastructure through some excellent Black Cockatoo feeding habitat. Loss of habitat is clearly the primary cause of the decline of this species and this proposal simply adds to that problem. Loss of birds from vehicle strikes will be a significant and unacceptable ongoing impact

Regional Importance of the Population (p. 27).

The PER devotes less than two lines to the subject of the importance of the population of Carnaby's Black-cockatoo utilising the project area and its environs and, in any case, refers more directly to the habitat rather than the population itself. It is an unfortunate probability that nobody really knows whether the same birds tend to visit the same areas every year for feeding and it would probably take substantial tagging program to determine whether a particular area is utilised by a large and varying population of birds from one year to the next or whether a particular subset of the larger population tends to gravitate to particular feeding areas from year to year. It is possible that the birds visit the same areas every year but spend more or less time in any particular area depending upon its productivity, its safety, and the amount of time it takes for the area's resources to become depleted. Drought years, or major bush fires, doubtlessly encourage exploration for new habitat areas and larger flocks might fragment and disperse to search for meagre food resources during dry and relatively unproductive periods. Of course, there can be a lag time between poor flower set and its consequences for the birds with fruits and enclosed seeds taking many months to form to the point of being exploitable. We agree with the PER's observation that "bushland in the airport area forms part of the increasingly reduced and isolated network of patchy feeding habitat across the Swan Coastal Plain" (p.27) but would add the logical corollary to this observation - that being that the Perth Airport area is a very important feeding habitat for the species. It is known that the species is in long term decline and it if it is not to slide towards extinction at some point its population will have to stabilise and then, hopefully, begin to climb. The UBC has seen no evidence that the decline of this species has been arrested and consequently we very strongly advocate the protection of all of its remaining habitat.

The UBC has had a particular interest in the protection of Carnaby's Cockatoo going back more than a decade. The UBC wrote to the WA Director on Nature Conservation, from the WA Department of Conservation and Land Management, Mr Kieran McNamara, in August 1999 expressing the following views:

One of the most attractive aspects of urban bushland remnants is their capacity to provide habitat for many species of native birds. A familiar visitor to Perth's urban bushland remnants in the cooler months is Carnaby's Cockatoo. We have been aware for some time that there are scientific concerns about the future of this very distinctive West Australian bird and that the species has been declared as being "in need of special protection" under the Wildlife Conservation Act, 1950. There is also a perception within our organisation,

borne of casual observation over many years, that fewer and fewer Cockatoos are arriving in Perth every year.'

The UBC would like to know what the Department of Conservation and Land Management's assessments are in regard to the present and projected conservation status of the species. If the species is in decline or is likely to decline in numbers over the next decades(s), the Council would like to know what CALM is doing – or proposes to do – in terms of arresting any slide towards extinction in the wild. The Black Cockatoo is a much-loved bird in Western Australia and many people see it as something of an emblem or our very distinctive and magnificent natural heritage. It would be unforgivable if we were to simply stand by while the species gradually disappeared."

In his reply, of September 2, 1999, the Executive Director of the Department of Conservation and Land Management, Dr Syd Shea, commented:

CALM is well aware of the high profile that this species has amongst both rural and Metropolitan-dwelling members of the public. This high profile provides an ideal opportunity to gain the support of all of the stakeholders whose land management practices could affect Carnaby's cockatoo. Any actions that your Council can take to contribute to the conservation of this species would be greatly appreciated

If anything, Carnaby's Black-Cockatoo is probably less abundant now than it was in the late 1990's. The UBC has pursued the cause of Carnaby's Black-Cockatoo's recovery through numerous channels – always drawing attention to the threat posed by habitat loss in debates over development proposals, for example. But too often the species has lost out and we are more concerned than ever that too little is being done to improve the survival prospects of this iconic bird. The UBC held a symposium on "Endangered Black Cockatoos in Western Australia" in November 2010 and it was very well attended indeed. The proceedings of the symposium have also proven very popular and there is little doubt Western Australia's black cockatoo species enjoy strong community support even if this often not refected in government decision making.

Assessment of Presence in the Project Area (p.27).

Representatives of the UBC have known the bushland around and within Perth Airport very well for decades and we can confirm that the project area is utilised every year by Carnaby's Black-Cockatoo. During the winter the ground beneath virtually all of the Banksia trees is invariably littered with discarded flowers and fragments of woody fruits and stems that indicate the visitations of the feeding cockatoos. Because the banksia woodlands around Perth Airport are still relatively extensive by urban standards, despite the amount of clearing that has occurred since the airport's privatisation, the species can also visit the area in relatively large flocks. In recent years it has been more common to see the birds in small and scattered flocks and one the reasons for this apparent splintering is undoubtedly the miserable size of the remnants it now relies upon for survival. Small flocks will even repeatedly visit obscure little plantings of suitable native food plants in suburban gardens – suggesting every known food source is of value to them. The habit of Carnaby's Black-Cockatoo of feeding on nut trees in suburban gardens probably assists their nutrition but it also puts them at risk from vehicle strikes and the more irresponsible gardeners who doubtlessly attack the birds by various means when they arrive to feed on almonds and other crops. It has been our observation over many years that Carnaby's Black-Cockatoo makes use of virtually every small patch of banksia woodland in the Perth region at least at some point during the winter

months. Consequently, the significance of the project area and its environs to the species must not be underestimated.

Forest Red-Tailed Black Cockatoo (Calyptorhynchus banksii naso) (p.28)

Distribution, Ecology and Habitat

We have already made the observation that this species has shown a very concerning recent tendency to frequent the suburbs metropolitan Perth. The bird is in some ways a welcome visitor, being magnificent in appearance and flight, pleasant to hear, and engaging in its behaviour. But it is unsettling to see a species change its natural range so abruptly. This species is now seen virtually all over metropolitan Perth when only a few years ago it was rarely, if ever, seen away from the forests of the Darling Scarp. It is strongly suggestive of a species under stress and it is our view that urgent attention must be directed to ascertaining its current and projected population. It is not a prolific breeder by any means and it can live to a considerable age, so working out what a sustainable population would be is not a straightforward matter.

Scientists generally regard the Red-tailed Black Cockatoo as being more vulnerable to extinction than Carnaby's Cockatoo and its status should be upgraded under the EPBC Act from vulnerable to endangered (R.E Johnstone pers. com. 2012 (WA Museum). We view its long term conservation prospects with some alarm.

The UBC does not accept that the demarcation of "core black cockatoo habitat" is appropriate in Figure 3 of the PER as it is misleading to the point of being erroneous. Given the Carnaby's Cockatoo and the Forest Red-tailed Black Cockatoo generally have somewhat dissimilar diets – the former being more inclined to feed on Proteaceous species and the latter being more inclined to feed on Eucalypt species – bundling the two cockatoo species into the generalised term "black cockatoo" for the purposes of identifying "core habitat" suggests these demarcations are imprecise to say the least. We strongly recommend all of the woodland and the buffering bushland areas around it in the vicinity of the project area as significant critical cockatoo habitat. There are large areas omitted from the so called "core black cockatoo habitat" in the mapping which are clearly good feeding habitat for one or other of the species and they must be taken into consideration the project's impacts and the provision of appropriate offsets.

Regional Importance of the Population (p.28)

It is our strong view that expanses of good quality woodlands on the Swan Coastal Plain, such as exist in and around Perth Airport, are of considerable significance to the Forest Redtailed Cockatoo. The species has not only come down onto the Coastal Plain for its food resources but probably also for the greater opportunities it provides for access to drinking water. This is no small concern for the species in very dry years in particular and if the species is drawn to the Coastal Plain in part because of the surface water it can utilise for drinking, then the food resources need also to be available. It is a reasonable assumption that the species is better suited and safer feeding on native foods in bushland than it is foraging in suburban gardens where it can encounter any number of unfamiliar hazards. The Forest Redtailed Cockatoo definitely does feed in urban bushland remnants and definitely does feed in the project area and its environs. It is clear that the species has a great liking for the fruits of the exotic Cape Lilac (*Melia azedarach*) tree but it has to be a question mark over whether extensive reliance on this species is any kind of adequate underpinning of its future conservation. The Cape Lilac produces berries seasonally and whereas in past years the Forest Red-tailed Cockatoo has simply fed on yellowish-brown ripened berries, our members

have noted its tendency lately to even start feeding on the unripe, green berries. It is possible that hunger is simply driving the birds to feed on otherwise unattractive and undesirable foods and certainly the bird appears to be experimenting with eastern states Eucalypt species more and more.

All this points to a lack of suitable feeding habitat and the UBC feels entirely justified in calling for a moratorium on the clearing of remnant bushland in the Perth Metropolitan Area – and on the wider Swan Coastal Plain - unless or until it can be proven that our threatened black cockatoo species have sufficient natural habitat to sustain their populations and - indeed - to help rebuild them. Any clearance of habitat should only be undertaken in circumstances where there is no reasonable alternative and with the proponent having the responsibility to provide very considerable, properly-measured and guaranteed offsets. It is our view that the Commonwealth has been hugely irresponsible in allowing massive clearing operations to proceed at Perth Airport since its privatisation, when it was already clear that such species as Carnaby's Black Cockatoo were in serious trouble and seriously lacking appropriate feeding habitat.

Known threats (p.29)

It is our understanding and advice that loss of suitable habitat is the primary cause of the decline of the Forest Red-tailed Cockatoo. Clearing for agriculture has removed habitat, forestry and mining activities have removed or degraded habitat, and, in the current context, urbanisation is destroying more habitat. The various Black Cockatoo species face many threats, some affecting particular species more than others, but their existence and intractability should be taken into account in assessing the future prospects of the bird populations.

Forestry, mining, and agriculture have taken out huge numbers of the ancient trees that provided nesting hollows for these species and now they face competition for the remaining hollows from galahs, corellas, ducks, possums, and feral bees. Plant pathogens such as Jarrah dieback are taking a toll on tree and shrub species that could be utilised for feeding and even the Marri tree (Corymbia calophylla) is now subject to disease problems. Furthermore, poachers take eggs and nestlings from known breeding sites. Orchardists still shoot Black Cockatoos and they can be very difficult to prosecute – given the proof required and the lack of available or willing witnesses in rural locations. Arson and "controlled burns" – which so often turn out to be nothing of the sort – further damage habitat areas. Adding to these difficulties is the broader issue of their needing to adapt to the gradual drying trend observed in the south west of Western Australia – presumably associated with climate change. Another threat of particular relevance to the Gateway project is that of vehicle strikes. As the birds are drawn to what are now urbanised areas by ancient habit, or by drought and a lack of natural food in more typical locations, they come into contact all the more with such as hazards as vehicle traffic. Once again, the possible impact of heavy traffic in a known Black Cockatoo feeding area should be taken into account when weighing up the compensatory offsets that are appropriate for such a major project.

Assessment of Presence in the Project Area (p.29).

It is not surprising that the PER reports that the Forest Red-tailed Black Cockatoo was seen in the project area during surveys. It was described as feeding on Marri nuts but our members have observed the species feeding on such species as *Eucalyptus todtiana*, *Eucalyptus marginata*, and *Allocasuarina fraseriana*, which also occur in the project area. It is disappointing that the PER makes no assessment of the significance of the fact that the Forest Red-tailed Cockatoo occurs in the area but merely concedes it utilises the area for feeding.

The UBC take the view that any natural remnant used by such a vulnerable species on the Swan Coastal Plain makes the remnant required habitat that must be retained.

4.1.2 Flora (p31)

Wavy-leaved Smokebush (Conospermum undulatum).

The UBC notes that GHD's survey recorded 185 plants of *Conospermum undulatum* near the Roe and Tonkin Highway intersection. We note the PER's inclusion of the comment that "all known wild populations are considered critical to the survival of the species (DEC, 2009)." The UBC understands that some research has been dedicated to the propagation of this species in a nursery or laboratory context. We would make the observation that the capacity to reproduce an endangered species in a nursery or a laboratory of a zoo may have some merit and is worth scientific investigation **but it is no satisfactory substitute for having a self-sustaining population of a species in its natural habitat**. Indeed the Commonwealth's principle no 1 in the National biodiversity conservation strategy (2001-2005) states: 'biodiversity is best conserved in situ'.

It is acknowledged that land clearing is a major threat to the survival of the species in the wild and it is our view that the protection of this species will be largely dependent on the protection of its natural habitat. The Gateway project is just another development that promises to remove more of the habitat the species needs for its best chance of survival. It is the view of the UBC that propagating such species by seeds or by cuttings and thereby introducing them to some selected alternative habitat or simply transplanting specimens is a very poor – indeed completely unsatisfactory – substitute for protecting plants in situ. We could only see the acquisition of a very large area of known habitat for that species to be brought into reserve status as having any compensatory value at all.

Keighery's Macarthuria (Macarthuria keigheryi) (p.31)

The UBC' views on the Endangered plant species *Macarthuria keigheryi* and its occurrence in and around the project area are similar to those expressed in relation to the Vulnerable *Conospermum undulatum*. We note that land clearing, inappropriate fire regimes, road and firebreak maintenance and construction, and weeds feature as threats to *Macarthuria keigheryi* as they did for *Conospermum undulatum*. All of these impacts are likely to occur in relation to the Gateway project either in the construction phases as an on-going risks. *Macarthuria keigheryii* appears to favour slightly disturbed places on the edges of vegetation as may have occurred along natural fauna paths, for example. As a consequence, the species, when it is found, is often found beside firebreaks, for example. This does not make disturbance a good thing but it does mean the management of firebreaks and verges where the species is known to occur a matter requiring some thought and awareness. Main Roads must therefore take care as to how some of the road verges are managed into the future.

Horticultural propagation is not conservation

The PER observes that "studies by Kings Park (2006) have indicated that this species can be easily re-established from cuttings, which then have good seed set within a short time" (p.32.). The Kings Park Board may receive funds from development proponents to establish that rare plants can be propagated through various sophisticated or unsophisticated horticultural practices but this belongs in the category of "interesting information" rather than that of "conservation solution." There are any number of threatened plants that can be grown in a nursery without too much difficulty but the ease of horticultural propagation is not the issue. A simplistic understanding or interpretation of the challenges of conservation might

lead one to the conclusion that merely possessing the capacity to reproduce large numbers of individual specimens of an endangered species in an artificial environment means they are no longer threatened in the wild - but this is nonsense. Very often the lack of suitable remaining natural habitat, and the overwhelming nature of the threatening processes with which they have to cope, make the establishment of artificially-raised specimens in the wild exceedingly difficult. Furthermore, there is a break in the vitally important process of natural selection, whereby only the specimens best-adapted to a particular environment survive – thereby leaving the genetic resources their progeny will need to ensure the strongest chance of survival into the future.

The PER observes in relation to *Macarthuria keigheryii* that "all populations are considered important" (DEC,2009b). The PER notes that although Mattiske (2009) found 18 plants in the vicinity of the project area, GHD did not find any in its more recent survey (p.32). The PER also notes that the species is thought to be "fire/disturbance responsive" (p.32). This is a very significant observation in the context of this project.

Impact of fire: On January 4th of this year there was a very large bush fire at Perth Airport that took in the project area of the proposed Tonkin Highway/Leach Highway interchange and the extension of Leach Highway into the Perth Airport. Some time later, the UBC wrote to the airport leaseholder to get details on how and where the fire started, when it was reported, how it was fought, how much bushland it consumed, and other details but were simply referred to WA's Fire and Emergency Services. Why the airport leaseholder, as the land manager, did not have such information on hand is a matter of some concern but suffice to say it was a very extensive fire which burned out most of the vegetation that would have been subject to floral surveys pertinent to the Tonkin Highway/Leach Highway project area. The significance of this fact is considerable and we will raise it at this point because it coincides with the observation that *Macarthuria keigheryii* is thought to be "fire/disturbance responsive" (p.32).

At the most recent Gateway Vision Environmental Consultation Group meeting, the Urban Bushland Council's representative suggested that as the project area in and around the project area for the proposed Tonkin Highway/Leach Highway interchange and extension had been entirely burned out in the January 4th bush fire, it would behove the proponent to carry out post-fire floral surveys for the simple reason that previously unrecorded species would be likely to be detected after such a major fire. Among such previously unrecorded plant species there might be one or more rare and endangered species. It is likely, that more specimens of Macarthuria keigheryii would be detected and a greater range of orchid species could be expected to emerge and flower. One of our members believes he saw a clump of the Endangered Grand Spider Orchid Caladenia huegelii growing in the burned out project area some years ago but has been unable to detect it in same area since. There is no doubt the floral composition of bushland areas on the Swan Coastal Plain can change markedly after fire and it is our very strong view that the Commonwealth should make the scientific survey of this area more complete by requiring the proponent to carry out further floral surveys in the coming winter and spring. One of our members recalls the unusual insectivorous WA priority species Byblis gigantea emerging in very large numbers some years ago in a part of Perth Airport that had been subject to a major bush fire, whereas previously the species had not even been recorded. Our knowledge of the area suggests that some rarer orchid species, for example, could well appear after such a large fire and we insist that further survey work should be done prior to the approval and commencement of major works.

4.2 Threatened Ecological Communities (p.39)

The UBC is surprised at the PER's claim that there are no TEC's as defined under the EPBC Act or even under the WA DEC's Listings in the project area itself but one "in proximity" to the Tonkin and Roe Highway interchange. Our inspection of the Tonkin and Roe Highway interchange area lead us to believe at least some dampland vegetation in the southwest portion of the Tonkin and Roe Highway interchange would qualify as a TEC - at least under State Listings – as **the UBC** has had strong botanical advice that virtually all wetland/dampland vegetation on the eastern side of the Swan Coastal Plain – especially that occurring on soil that is clearly alluvial in origin – falls within one or other of the TEC categories. The UBC is also surprised that none of the bushland in areas such as that adjacent to the proposed Tonkin and Leach Highway interchange is classified as threatened. Large bushland areas like these are rare in the urbanised parts of the metropolitan area – especially south of the Swan River – and some of the more species rich banksia woodland closely resembles vegetation in other places that has been given TEC status.

In any case, the UBC regards the application of the TEC concept in environmental assessment processes with some scepticism given that the state of Western Australia offers no formal protection for its TEC's and the Commonwealth's Listings under the EPBC Act are only a small subset of the WA Listings. Some of the usage of this apparently scientificallyderived data has quite perverse outcomes as a simple visual inspection of a site and its vegetation might prove more practically informative in terms of determining conservation values than an interpretation of a conceptualised community by a consultant and it is a sad state of affairs when good quality bushland and habitat is considered expendable because " the computer says no." When supposedly technical data obscures the wood for the trees it undermines community confidence and raises legitimate questions of whether the so-called science is really just an elaborate means of justifying continuing clearing. The UBC supports genuinely scientific approaches to conservation issues but when there is inconsistency of classification of rare species and communities between Commonwealth and State governments, and when the interpretation of allegedly scientific data seems to have some strong subjective elements, and when the so-called science – which often amounts to little more than a species inventory - is given all priority over more general natural heritage conservation considerations that might resonate more strongly with the wider community, and when the so-called scientific approach is clearly failing to deliver good conservation outcomes, there are grounds for questioning whether the scientific data and the framework within which it is interpreted and applied is really serving the community adequately.

4.3 Commonwealth Land (Perth Airport) (p.40)

The UBC expects Commonwealth land to be subjected to environmental constraints at least as strong as those operating at a state level and we have been exceedingly frustrated in the past having to deal with Commonwealth officers who have claimed, for some reason, that environmental impacts at Perth Airport only require consideration if they affect "matters of national significance." The truth is that the Commonwealth has no business avoiding the environmental responsibilities that might apply to states and the fact that a significant proportion of the Gateway Project proposal involves Commonwealth land means it is only fitting that its environmental values, whether they are deemed to be of national significance or not, need to be acknowledged and protected to the best of the proponent's capabilities. In any case, the UBC regards all remnant vegetation on the Swan Coastal Plain as being of

national significance and any credible approach from the Commonwealth would reach the same conclusion. The UBC makes no secret of its contempt for the Commonwealth's approach to conservation issues at Perth Airport since its privatisation and it is high time the destruction of natural areas in and around the airport ceased.

4.3.2 Vegetation and Flora

We note the PER's observation that:

The vegetation of the Project area is considered to be representative of the Southern River Complex and Bassendean Complex – Central and South. These vegetation complexes ars both classified as "Vulnerable" in terms of extent of vegetation remaining compared to pre-European extents (EPA, 2006). That is, there is less than 30% of this broad vegetation type remaining within the Perth region of the Swan Coastal Plain (p.43).

This does not tell us anything about the extent remaining in the Perth region: is it 0%, <10%, or >10%? Thus the PER says nothing about the context of what remains in the region and the significance of its retention or loss. This is unacceptable. Data from the Perth Biodiversity Project (R Zelinova pers.comm.) is available from WALGA although it is for the Perth and Peel regions of the Swan Coastal Plain:

For Southern River complex, 18.2% remains but only 2.55% is formally protected. For Bassendean central& south, 22.2% remains but only 3.27% is formally protected. It is well known that much less than 10% of this latter complex is secured in reserves in the Perth region and that much of its area proposed in Bush Forever for protection has already been cleared in Perth and Jandakot Airports. Therefore clearing more of either complex at Perth Airport is a significant loss of regionally and nationally significant species rich vegetation. This is environmentally unacceptable.

Vegetation Condition (p.43)

The UBC raised objections to bushland not even being acknowledged as being bushland in some of the presentations given at Gateway Vision's Environmental Reference Group meetings, only to be told that bushland below a certain perceived standard in terms of condition was not being included in the calculation of impacts. This is unacceptable. The UBC never underestimates the value of even a few indigenous trees or small and significantly disturbed patches of bushland. They will still provide habitat for native invertebrates, birds, reptiles and even some mammals. They provide opportunities for provenance seed collecting and they can provide the nucleus for a regeneration program. It is a singular failing of both state and Commonwealth environmental legislation that neither seems to take account of the value of massive old trees. Ron Johnstone (WA Museum) has emphasised at two public meetings this year that all old trees in bushland remnants regardless of condition are critical habitat for black cockatoos and must be retained. He said that it takes over 200 years for hollows suitable for nesting to develop.

It is the height of environmental folly to consider a two hundred -year- old Jarrah tree to have the same apparently unremarkable environmental significance as a 3-metre-high mallee regrowth Jarrah tree but this is the nonsensical notion that we find informs assessment processes. A clearing project at Perth Airport involved the destruction of at least half a dozen massive, centuries- old Jarrah trees, festooned with hollows occupied by nesting birds, and their rarity and importance would not have been acknowledged one iota under Commonwealth assessment processes. It is a disgraceful state of affairs and we once again stress that the Swan Coastal Plain is so devoid of natural habitat that even the most disturbed

bushland areas and most isolated old indigenous trees must be recognised as having significant environmental value. We have seen Local Government Authorities removing old remnant indigenous trees for the most trivial reasons and it will one day dawn on Local Government that centuries-old trees take centuries to replace. One of the most vexing and stupid notions we face on a regular basis - usually in the context of evaluating offsets - is that seedlings constitute a substitute for mature trees. They do not. Old trees cannot be offset.

There are some very large and impressive trees in the vicinity of the Tonkin and Leach Highway interchange area, in particular, and we presume they have been included in the identification of the potential breeding trees for Black Cockatoo species in Figure 3. Such trees might provide future nesting sites, were they not destroyed, as there is some evidence that the birds may be beginning to nest on the Swan Coastal Plain. The PER's dismissal of "strips along Tonkin Highway" (p.44), in terms of environmental values, is totally unacceptable to us as Tonkin Highway has potential as a regenerated wildlife corridor and some of that vegetation is in surprisingly good condition.

Dieback Survey (p.44)

The UBC has become accustomed to seeing references to heavy infestations of *Phytopthora sp.* at Perth Airport and as we do not have our own plant pathologist we have to take the PER at face value. What we can say is that if the pathogen is as widespread in the vicinity of the project area as is stated in the PER then it offers some hope that WA's native flora can cope with the presence of this disease while maintaining a reasonable level of ecological health. The UBC is aware that there are parts of the south west of the state where Jarrah Dieback devastates native vegetation to the point that it appears to have been aerially sprayed with a non-selective herbicide. However, areas that are claimed to be quite significantly infested with the disease at Perth Airport still produce apparently healthy specimens of susceptible species and we admit to being puzzled as to why the disease does not appear to have the "biological bulldozer" impacts there that it does in some other landscapes. Or is the proponent perhaps hinting that much vegetation is not worth saving as it is infested with dieback?

Nevertheless, it is incumbent on the proponent to minimise the risks of spreading the disease and all preventative hygiene measures that need to be employed during construction must be defined and enforced as conditions of approval.

Vegetation Types (p.48)

We have provided the general comments regarding vegetation that we propose to make in this submission but do note that 245 native species have been recorded in the project area (p. 50). That is a large number of species and their destruction would be a very significant environmental impact. We agree that parts of the Tonkin and Leach Highway interchange are of "high biodiversity" and it is that area we regard with the most concern with regard to the environmental impacts. Not only is the vegetation of good quality and showing high biodiversity, but it is also excellent habitat for fauna. The UBC is very concerned not only about the construction phase impacts of the project in terms of habitat loss, water table affects, and drainage but also holds grave fears for the on-going impacts on fauna such as vehicle strikes and impenetrable barriers. The UBC insists that safe means for allowing fauna to cross the road barriers must be devised and constructed and approval for the project should be contingent on such measures being guaranteed.

Table 8 Conservation Significant Fauna Recorded from the Project Area (p.60)

Rainbow Bee Eater (Merops ornatus) (p. 60)

The UBC is bemused as to why the Rainbow Bee Eater continually rates a mention in environmental assessment documents without ever actually rating the slightest consideration in terms of actual measures to protect it. The UBC values the species as a living wonder but the hypocrisy inherent in its official "protection" is staggering. We submit the proponent will probably do nothing to protect the breeding habitat of this species and the Commonwealth will probably not require them to. **Proponents should not be allowed to disturb the ground where the species breeds from October to January. We have no doubt Rainbow Bee Eaters would use some of the sandy patches within the project area every year for excavating their breeding tunnels.**

Southern Brown Bandicoot (Isoodon obesulus fusciventer)

The UBC is well aware that Perth Airport and its surrounds is a stronghold of the Southern Brown Bandicoot and it is a species that we regard with some concern. The UBC is not satisfied with the casual approach that is generally taken to the conservation status of this species and it is very disappointing to see it continually treated as if it were common and invulnerable. The UBC has seen this species disappear from numerous smaller blocks around Perth Airport over the years – even before the blocks themselves were eventually cleared and it would be very foolish on the part of the state and the Commonwealth to assume that this species will continue to thrive in areas such as Perth Airport indefinitely without proper protective measures being undertaken. This species is heavily impacted by traffic particularly at dusk and at night – and we insist again that measures must be put in place to allow the animals to get across, or under, busy roads, They must be able to move throughout the wider landscape without impediment and without being killed or injured by vehicles. This species should be especially valued insomuch as it has been able to survive for so long where so many similar-sized native animals have disappeared from the Perth metropolitan area and beyond. It is a disgrace, in our view, that for its tenacity it is simply taken for granted rather than being treasured and properly protected.

4.3.4 Natural Heritage Conservation

The Urban Bushland Council is aware that Bush Forever is not a Commonwealth initiative but sees no reason why it should not respect and recognise the value and importance of protecting Bush Forever sites. The UBC is thoroughly unimpressed by the dismissive view taken by Commonwealth officers and the airport leaseholder with respect to Bush Forever and it is time the Commonwealth accepted its responsibilities to protect the nation's interests by protecting irreplaceable natural heritage areas such as those included in Bush Forever – notably Site 386 (Perth Airport).

All Bush Forever sites are rated by the State as of both regional and national environmental significance (Keighery B. J., pers. comm.) and should be formally recognised by the Commonwealth as such.

5.3.3 Acid Sulfate Soils (ASS) p79

Perth Airport has significant areas mapped as high risk of ASS. As the stratigraphy of the Airport area is very complex and variable, it is imperative that a detailed map and assessment of ASS and PASS be carried out over the whole area proposed for disturbance **before any final planning is done.** Indeed this should already have been done and must be done before further formal assessment is carried out.

The UBC is aware that ASS was disturbed at the Airport when the Woolworths Distribution Centre and associated infrastructure was constructed with dewatering and this should not have happened. Proper scrutiny of ASS should have been done first and such areas avoided and not dewatered.

We draw your attention to the comments in 5.3.3, p79 which states that disturbance of ASS is not likely, but further analysis of soils will be done indicating to us that insufficient soil survey has been done. Then it says that excavation and dewatering are likely to be required during construction. This is a totally unacceptable sequence. The detailed studies should be done first so that ASS areas are avoided in initial plans and they must never be dewatered, even temporarily. If the proponent insists on disturbing an ASS area, then wet construction techniques must be used. ASS areas must remain wet and never be drained or dewatered.

Proposal for construction of 'sunken road sections' seem to be inherently high risk for disturbance of these areas which are essentially vegetated wetlands or areas with groundwater close to the surface on a flat landscape and hence prone to flooding.

Thus the UBC strongly recommends that the proponents be required to carry out detailed soil, ASS, PASS mapping and assessment before any further assessment of options and impacts is considered by the Commonwealth under the EPBC Act.

6.4 Proposed Offsets Package (p.92)

The UBC is generally opposed to the concept of using offsets to compensate for clearing of remnant vegetation as it invariably results in a net loss of remnant vegetation and a net loss of biodiversity. Changing the tenure of a block that an owner is not likely to be allowed to clear anyway offers no ecological gain – rather a demonstrable ecological loss. Although we object to the approval of this project, the following comments are offered in the case of approval.

The UBC not only has some objections to the principle of offsetting but also deplores the manner in which it is often practically applied. It is our strong view that the most suitable offset for this project would be the permanent reservation of much larger natural areas at Perth Airport. This would, in part, make some amends for the atrocious record of clearing approvals the Commonwealth has granted for Perth Airport since its privatisation and would help keep the natural areas at Perth Airport as ecologically rich as they currently are and help keep them remain ecologically sustainable in the longer term.

We object very strongly to any offset funds being given to the airport leaseholder to manage their existing conservation areas or to pursue such vague and ecologically dubious concepts as the "Living Stream" idea that had yet to make it off the drawing board despite years of publicity. There was a "Living Stream" proposal for the main drain on the eastern side of the main runway but it now seems to have migrated over to the western side. In any case, it is no substitute for the protection of a greater portion of the airport's natural areas — that is what is really required. But we repeat the point that the environmental management of the natural areas at Perth Airport is very much the existing responsibility of the airport leaseholder and it is not to be shifted to taxpayers via offsets.

The UBC does not accept plant propagation experiments or exercises as an offset for destroying endangered plants or their habitat. It can only be an offset if much more habitat can be brought into the conservation estate – and even that involves a net loss.

The UBC sees some merit in planting large areas which might provide feeding habitat for species that appear to be running out of feeding habitat – such as Carnaby's Black Cockatoo. But we would only see that as an acceptable option if it were on a reasonably large scale, such as ten times the area lost and expertly planned, scientifically implemented and measured, and very carefully managed. It is not acceptable to throw money at Local Government Authorities to undertake "revegetation projects" that may or may not provide feeding habitat for an endangered species when they have no particular expertise in such work and cannot guarantee worthwhile outcomes.

The UBC feels at a great disadvantage in not knowing what block or blocks the proponent is proposing to acquire, or contribute to the acquisition of, with regard to offsetting the destruction of habitat the Gateway project involves. The UBC does not regard anything further than a few kilometres distant from the project site to be "close" and can scarcely comment on the offset's suitability with no information. It is a major problem and we object very strongly to being kept in the dark on this matter despite our presence on the Gateway Consultative Group. We reiterate it is the very strong view of the Urban Bushland Council that the most appropriate major offset for this proposal is the setting aside of much more land (beyond that already committed) for conservation at Perth Airport itself and we will not resile from this position.

We would make a further comment on the proposed landscaping associated with this project. It is clear that there will be opportunities for the proponent to scrape off natural bushland topsoil and use it for re-establishing some native vegetation in the vicinity of the roads. Landscape architects may have visions of lawns and palm trees or conifers or some other exotic features but this project impacts very heavily on some very important native vegetation and habitat and it is incumbent on the proponent to re-establish in the footprint area as much of the removed natural vegetation as possible.

Further we recommend that landscaping with only those plants indigenous to Airport land be used and that the leaseholder be required to maintain such use of local species in future maintenance.

The UBC appreciates the opportunity to comment on the Gateway project.

Yours faithfully

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