



2nd June 2020

Major Development Plan
Perth Airport Pty Ltd
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CLOVERDALE WA 6985
Submission Email: reception@perthairport.com.au

Dear Sir/Madam,

Submission: Preliminary Draft Major Development Plan Airport West (South)

The following is a submission relating to Perth Airport's *Preliminary Draft Major Development Plan Airport West (South)* on behalf of the Urban Bushland Council WA Inc. (UBC). Hereafter in this submission the aforementioned document may be referred in the abbreviated form *PDMDP*. The UBC is a peak community body that promotes the recognition and conservation of urban bushland and its biodiversity on behalf of more than 75 member groups and the WA community in general. The UBC has been a major community stakeholder and contributor in the conservation and appropriate environmental management of urban bushland around Perth for over 25 years.

Perth Airport has long been recognised as having landscapes and biodiversity of special significance within the region but it is a location the UBC has come to regard with great regret and concern. The story of Perth Airport's natural heritage since its privatisation provides a prime example of the complete inadequacy of Australia's environmental protection system and an illustration of the profound indifference that has come to characterise the Commonwealth's approach to our declining Australian flora and fauna. The *Preliminary Draft Major Development Plan Airport West (South)* just represents more of the same from Perth Airport in that it is just a wholesale clearing project with minimal allowance for biodiversity protection. Perth Airport had a defensible, though not necessarily ideal, environmental protection regime in terms of biodiversity protection up until the Commonwealth's approval of the *2014 Perth Airport Master Plan*, but since then, the environmental protection standards have declined substantially.

Impact of Covid-19 Pandemic and the problem of privatised major airports

Before commenting on the *PDMDP*, the following context is given. Major airports are of great economic and strategic importance – not for their capacity to generate real estate income for private operators – but for their capacity to facilitate the operation of the aviation industry as a service to the public good. If the aviation industry faces major downturns or lockdowns – and those circumstances persist or recur - there is a potential for vital aviation services to become constrained by the financial difficulties and concerns of private operators. Pandemics are only one threat to the continuity and flow of global aviation. Security issues relating to terrorism or international conflict probably pose just as great a risk as do financial crises. Even potential action on global warming could have major effects on the aviation industry. Under such circumstances, airports are not necessarily going to be financially viable businesses while meeting national needs. And if airports are to be viable businesses then they should be such on the basis of their aviation operations – not

their real estate investments. It is fair to say governments should not be propping up businesses financially or by means of concessions to run operations that they should be running themselves.

The UBC had major concerns when Perth Airport was privatised because it was assumed operators would never give up lobbying governments to develop every vacant parcel of land they could for generating income. Despite any number of assurances to the contrary from politicians and government officials during and after the privatisation process, this has certainly come to pass and the inception of allowing developers to use environmental offsets to gain approvals – a practice the UBC finds totally unacceptable and a betrayal of the Australian community - has facilitated progress towards Perth Airport's ecological desertification.

The UBC is not in a position to know whether Perth Airport is confident it wishes to proceed with developments such as the new runway or even the Airport West (South) proposal in the envisaged time frames given the uncertain future of the aviation industry in the short to medium term but we assume some review of these plans may have had to be undertaken or will be undertaken in light of changing circumstances brought on by the Covid-19 epidemic. The proposed development – which is really a clearing operation and site works project – is estimated – according to the *PDMDP* (p.37) – to involve an investment of \$36 million dollars. Assuming the Airport does not have prospective tenants locked into agreements, this would appear to be an investment in land that might not be all the readily sub-leased. A proposed “Biome” project, which we find somewhat baffling and indeed unacceptable in any case, would seem to be greatly dependent on international tourism – and that is a very much an unknown quantity as regards volumes other than to say they won't be burgeoning any time soon.

The UBC is of the very strong view that Perth Airport does not have a case for clearing valuable native vegetation with many MNES when there is likely to be considerable uncertainty as to the real demand for the land concerned in the prevailing economic climate.

It may be the case that Perth Airport plans to undertake major expenditure on projects such as the Airport West (South) in the time-frame envisaged pre-pandemic and that the Covid-19 event will not alter expansion and development plans at Perth Airport in the short to medium term but just as Perth Airport claims to have a major impact on the regional economy perhaps some consideration should be given to the effect the state of the regional economy – and indeed the national and international economies - might have on Perth Airport. We are not hearing too many optimistic predictions about the WA economy. Our concern is not for the state of Perth Airport's books but that land cleared for development might not have particularly good prospects of being utilised for the purposes described in the *PDMDP* in the short to medium term and therefore might lie idle for an extended period.

We strongly oppose the clearing of native vegetation at Perth Airport generally but even more, we certainly do not see why Perth Airport's operator should be permitted to clear land in an uncertain economic environment where the purported demand for the land may be greatly diminished. The UBC has seen any number of planning documents released by Perth Airport over decades and they invariably take an exceedingly optimistic perspective on matters such as passenger growth and aircraft movements into the future and more or less assume WA is on a strong and uninterrupted economic growth trajectory. Currently it appears the aviation industry – especially in terms of discretionary passenger movements - has an uncertain future. It certainly is not going well at the moment.

Clearing on the western side of Perth Airport

The UBC is aware that much of the native vegetation targeted for clearing in the *PDMDP* has at least some signs of disturbance, but we would see most of the significantly disturbed areas as capable of being regenerated to good condition. The document itself concedes that of the 37 ha targeted for clearing, 34.2 hectares were mapped as being in “Good to Very Good condition” (*PDMDP* Part B p.23). The UBC has already opposed the clearing of native vegetation and habitat that occurred for the construction of the Direct Factory development and the Costco development just to the north of this site and our general view of clearing at Perth Airport remains the same. These developments could have been located at alternative sites around Perth that were already cleared but the Commonwealth saw fit to grant Perth Airport permission to clear irreplaceable and endangered native vegetation so that they could be constructed at Perth Airport. The Banksia woodland that was cleared for the Direct Factory Outlet was described as being substantially in “Excellent” condition in the *PDMDP* for that project and the Listing of Banksia Woodlands of the Swan Coastal Plain was imminent at the time, but the Commonwealth had no hesitation in consigning this beautiful natural heritage to oblivion.

Perth Airport then destroyed more native vegetation re-routing the Southern Main Drain with the excuse that it would be converted to a “Living Stream.” In fact the “Living Stream” development caused a major erosion event that sent enormous quantities of sand down the Southern Main Drain to the Swan River. Subsequently, the “Living Stream” took on an exceedingly unnatural look when its banks were lined with very large quantities of limestone. Even more remarkably, when the Costco project was undertaken, a substantial portion of this “Living Stream” went underground into pipes to make room for the development. It is difficult to ascribe any credibility to the Commonwealth’s oversight of natural area protection at Perth Airport because it has displayed none.

Although the condition of the 37 hectares of native vegetation targeted for destruction in the Perth Airport West *PDMDP* varies and that some of it is not pristine, even the more disturbed areas could be regenerated and it forms part of a Vegetation Complex which is very poorly conserved (Bassendean 1001 association also known as Bassendean Central and South Vegetation Complex). On the matter of the condition of the native vegetation, it is stated on page 23 of the *PDMDP* Part B that, “A total of 37 hectares comprised native vegetation with 34.2 hectares mapped in the Categories of Good to Very Good Condition”. On page 26, however, it is stated that, “Development of the project will involve the clearing of up to 37.0 hectares of native vegetation which comprises 52.3% rated in Good to Very Good Condition, and 47.8% in Degraded or Completely Degraded condition.”

Figure 3.3 showing “Vegetation Condition within the Airport West (South) project area” and Table 3-6 on page 29 would appear to be consistent with the assessment that 34.2 hectares is in Good to Very Good condition.

Bassendean Vegetation Association 1001

The Urban Bushland Council has long been aware that the Bassendean vegetation association 1001, which we refer to more familiarly as Bassendean Central and South Vegetation Complex, is extremely poorly secure for conservation. The *PDMDP* data given on percentages extant and remaining is both confusing and misleading and is incorrect

The *PDMDP* states that: “*The project area is located within the “Bassendean Complex – Central and South” vegetation complex, as described by Heddlé et al. (1980).* This is correct. **What is not stated is that only 1.2% of this complex is secure for conservation in the Perth Peel Region (advice of the EPA to the Minister for the Environment under section 16(e) advice of the**

Environmental Protection Act 1986, July 2015). The minimum is supposed to be at least 10%. Indeed this is reason alone for all of this remaining vegetation complex to be retained and protected at Perth Airport.

In any case the figures the UBC uses for reference all indicate that the Bassendean Complex – Central and South is very poorly conserved in the Perth area and thus all remaining patches should be conserved.

This being the case, the Urban Bushland Council cannot support the unnecessary clearing of 37 hectares of this Bassendean vegetation association 1001 remnant that lies right in the heart of Perth. **This project is not for aviation purposes** and it is exceedingly tiresome to be continually seeing Perth Airport's references to the capacity of its proposed non-aviation developments to "generate employment" and "assist economic growth in WA" in planning documents as if the airport were under some legal obligation to fulfil this role. These may be by-products of sub-leasing land for gain but Perth Airport is a business and its real obligation is to run an airport efficiently. Perth Airport wants to sub-lease as much land as it can at Perth Airport because this all represents income. Businesses do not operate to generate employment or to generate economic activity. They operate to make money and it difficult to see why Perth Airport should be seen in any different light. Employment and economic activity are unobjectionable of themselves – indeed they are desirable - but they should not come at the expense of unnecessary and irreversible environmental impacts with loss of MNES that will diminish the natural heritage people in the generations to come can appreciate and enjoy.

Banksia Woodlands of the Swan Coastal Plain

The Urban Bushland Council has been raising the alarm about the plight of our Banksia Woodlands on the Swan Coastal Plain since its inception as peak community group in 1993. It's listing as an endangered Threatened Ecological Community (TEC) under the EPBC Act (1999) in September, 2016 was well overdue, and the UBC has campaigned extensively trying to raise the awareness of politicians and the general public regarding both historical losses of Banksia Woodland and how much is still being cleared. Compounding the problem is that even the extant Banksia Woodlands face numerous serious threats to its survival in addition to the direct impact of clearing.

And the UBC makes has no hesitation in stating that the policy of State and Commonwealth governments to allow developers to use so-called environmental offsets to obtain clearing approvals has largely stymied protection of this beleaguered ecological community. These approvals are inconsistent with the **Approved Conservation Advice under the EPBC Act** for this endangered TEC which states that the objective is to **PROTECT the ecological community to prevent its further loss of extent and condition.** Therefore the proposed clearing of the Banksia Woodlands of the Swan Coastal Plain TEC should not be permitted.

There is no evidence showing that clearing one area of habitat and compensating that loss by changing the tenure of another area that is already extant provides any enhanced security for species or ecological communities. Indeed this is fundamentally flawed logic.

In most instances, the only reason the proposed offset is not securely protected in its current status is because environmental protection legislation has failed to provide it with the level of protection it warrants anyway. So we have one corrosive element of the environmental protection system – environmental offsetting – that more or less relies on the effective absence of land clearing prohibitions that should be firmly in place to begin with. And the notion of recreating Banksia Woodlands of the Swan Coastal Plain as an offset is simply impossible. The task and the time scale

to provide a replacement habitat – the *PDMDP* proposes 20 years – is way out of kilter with the capacity of business to provide guarantee.

Conservation precincts

As recently as 2013, Perth Airport had about 310 hectares of the airport estate set aside for conservation purposes. Any reasonable person reading the *2009 Perth Airport Master Plan* would have assumed a “Conservation Precinct” meant an area set aside for the term of the operator’s lease for conservation purposes. Any other conclusion would not make sense as a “short term conservation area” is an oxymoron. Establishing a “conservation area” is by definition a long term commitment. But only 5 years after the *2009 Perth Airport Master Plan* was released and only 15 years after the Conservation Precincts first appeared in the first *Perth Airport Master Plan (1999)* released after privatisation, the Perth Airport Conservation Precincts were simply erased from planning documents and replaced with development precincts. How either the Perth Airport or the Commonwealth Government thinks it could justify this state of affairs defies explanation but seeing Perth Airport claiming it will commit to a 20-year Banksia Woodland restoration project to justify a land clearing project is stretching credibility beyond all tolerance. In any case, from our extensive experience and observation, and from the advice of scientists, the recreation of Banksia Woodland – that is with its full range of species and ecological functions – is both impossible.

The Urban Bushland Council most emphatically does not accept that clearing of Banksia Woodlands of the Swan Coastal Plain can - or should - be offset in this way. It is contrary to the Approved Conservation Advice under the EPBC Act as clearing results in a net loss of this already endangered ecological community.

Priority Flora Species

The Urban Bushland Council is concerned that populations of two Priority species, *Platycace ramosissima* (P3) and *Johnsonia pubescens subsp. cygnorum* (P2) would be destroyed if this project were to proceed. Neither of these species appear to us to occur in sufficient numbers or populations to be considered to be secure. It is very interesting to see that Perth Airport supports the northernmost known population of *Johnsonia pubescens subsp. cygnorum* and it is very disturbing to see that this population appears to be under threat of complete annihilation if this project proceeds. Given this fact, along with the numerous other environmentally significant attributes of the 37 hectares of native vegetation that would be destroyed if this project were to proceed, the UBC sees the protection of the vegetation as fully warranted.

It is a disappointing shortcoming of the *PDMDP* document that it does not include images of the two Priority species. It is likely the species are not going to be readily recognised by most people but members of groups such as those affiliated with the UBC are frequently in bushland areas and could help identify populations unknown to WA authorities. Australia has an ever-increasing list of native species heading towards highly threatened or extinct status and it is about time the Commonwealth started preventing this disastrous descent rather than facilitating it. The UBC would probably like to add a lot more species to the WA Government’s Priority species list but the ones that do make it onto the list usually do so for good reasons.

Endangered Black Cockatoo species

The UBC has long campaigned for greater government protection for the endangered **Carnaby’s Cockatoo** and its habitat – particularly its feeding habitat on the Swan Coastal Plain. Some of our members have devoted an extraordinary amount of time to observing and studying these birds over an extended period. They liaise with scientists and form part of a community network that provides a good deal of valuable data as to the populations, movements and behaviours of the species. The

typical feeding habitat on the Swan Coastal Plain is Banksia Woodland and Eucalypt woodlands and we see more of this habitat under threat from the Airport West proposal. The Commonwealth's own assessment of the status of this species is that its decline is due in part to a, "*Loss of native food sources caused by urban development on the Swan Coastal Plain,*" (Department of Agriculture, Water and the Environment).

Not only is it the case that Carnaby's Cockatoo has declined in numbers by about 50% in the last 45 years, but a significant proportion of the extant population is past breeding age. The UBC is not aware of any recent dramatic turnaround in their numbers and has no reason to believe their numbers will not stay relatively low and possibly decline further in the coming years. Our group has members who recall when this species was still relatively abundant and even without scientific counts and surveys it is fully apparent to them that the typically small flocks still seen around Perth occasionally in the cooler months reflect a species in very serious decline.

It has been claimed that Carnaby's Cockatoo "has adapted to the urban environment" around Perth in the sense that it feeds on a fairly wide variety of exotic trees. Given its serious decline in numbers, it is difficult to see how the species could be seen to have adapted successfully to increasing urbanisation. Reliance on substitute food sources of this nature is fraught with problems – not the least of which are the declining size of dwelling lots – meaning less space for garden trees – and the drying climate. It is also the case that when Cockatoos habitually feed on certain types of trees, gardeners will remove the trees or avoid planting them altogether – either because the food crops are destroyed or because the birds create too much litter in the form of leaves, husks and twigs.

The **Forest Red-tailed Black Cockatoo** has, over the past decade or so, become especially partial to feeding on the Cape Lilac (*Melia azedarach*) tree in suburban areas. But their messy feeding habits irritate many homeowners and despite the Forest Red-tailed Black Cockatoo's Listing as a Vulnerable species under the EPBC Act, this food source is actually diminishing as Councils and homeowners remove Cape Lilac trees from street verges and gardens. Whether the birds seek out and feed on exotic trees because they struggle to find sufficient nutrition from their usual native food sources or simply because they prefer to feed from exotic trees at times is an open question. If they are seeking out exotic trees in suburbia because their usual native food sources are not providing the sustenance they need for the energy they have to expend to find and exploit them, they are indeed in serious trouble.

Marri Canker (*Quambalaria coyrecup*), and Jarrah Dieback (*Phytophthora cinnamomi*) are intractable diseases affecting important food trees for the Forest Red-tailed Black Cockatoo in their natural habitat and the drying climate is also likely to be taking a toll on the general vigour and productivity of these tree species. In these circumstances any loss of natural feeding habitat is likely to be unhelpful and simply changing the tenure of some existing habitat as a compensatory measure for destroying existing habitat does not contribute to alleviating the existing threats faced by the species.

Incremental Habitat Loss

As it is the case that the destruction of the habitat of the Endangered and Vulnerable Black Cockatoo species has been incremental and primarily a process of the species facing "death by a thousand cuts", it is somewhat irrelevant and disingenuous for proponents to continually claim their proposed development, taken in isolation, only represents a certain small percentage of the species' once extant or existing habitat. The point is that the incremental destruction has to stop somewhere or it simply eats away at the species' prospects of survival until the situation becomes

critical - if not irreversible. It is possible that our iconic Carnaby's Cockatoo, for example, may already have reached the point of no return. And the same applies to other threatened species and ecological communities.

The restoration of habitat, otherwise known as rehabilitation, is slow and, particularly in the case of Banksia Woodlands of the Swan Coastal Plain, problematic anyway. The UBC has member groups that have spent decades trying to restore Banksia Woodland vegetation and it is widely known to be exceedingly difficult to recreate an understorey that equates to that of naturally occurring vegetation. It is our view that the use of recovered topsoil is only likely to produce "recovered topsoil" communities. They are better than nothing but they are not restored ecological communities.

The recording of **Baudin's Black Cockatoo** feeding in native vegetation on the western side of Perth Airport is both interesting and slightly disturbing. The species is generally considered to be a bird likely to be seen up in the forests on the Darling Scarp around Perth rather than out on the Coastal Plain. If the birds become habitual visitors to the area it raises concerns as to why they are extending their range – as with the Forest Red-tailed Black Cockatoo. The question is whether they are foraging outside of their normal range because of a diminution in the availability of native food resources they can readily utilise within the habitat area they normally occupy. It is a reasonable hypothesis and Commonwealth authorities should be monitoring the numbers and movements and feeding patterns of all the threatened Black Cockatoo species closely.

The UBC reiterates its view that the purchasing of Black Cockatoo habitat that already exists does not justify clearing other habitat areas. Also the recreation of natural Black Cockatoo habitat is an unsatisfactory offset because it is too slow to become fully productive and because it is likely to be a poor substitute for established native vegetation anyway. Further, establishment of new habitat should be fully achieved before any clearing.

Quenda and Rakali

The Quenda, as a Priority species in WA, warrants more consideration than it is generally accorded in Perth Airport's environmental assessment documents. The UBC is aware that Perth Airport has long had strong populations of Quenda but the relatively abundant occurrence of the species in the area should not be taken for granted or regarded as necessarily indicative of the prospects of the species overall in the broadly deteriorating ecological conditions of the Swan Coastal Plain biogeographic region.

The UBC's member groups have certainly seen this apparently resilient species disappear from areas it formerly occupied in the metropolitan area and it would be wrong to assume its survival in the region is guaranteed - especially if habitat clearing continues at the present rate. It is actually very disappointing that rather than celebrating the capacity of at least one terrestrial mammal species of its size survive when so many others have been eliminated from the region, it is the habit of environmental agencies to overlook the importance of this species and to readily accept relocation options. Such is the inadequacy and unsuitability of our environmental protection system, species and ecological communities that only assume significance when they become rare or threatened. A worthwhile environmental protection system would function so as to protect and enhance the status of those species and ecological communities that are presently familiar and common and not simply focus exclusively on the rare and endangered aspects of the environment because this exclusive focus inevitably condemns the familiar and the common to the fate of becoming rare and endangered with the passage of time. The Quenda, as an example of a species that is currently relatively abundant at locations like Perth Airport, is not properly protected and is having its habitat on the Swan Coastal Plain continually eroded away by urban expansion – and in

some instances - by agricultural and horticultural land uses. The Urban Bushland Council does not believe it is acceptable to entirely clear the habitat for this species on the Western side of the Airport, and that is effectively what is proposed.

The PDMDP makes the following statement regarding the treatment of the Quenda population within the development envelope:

Pre-clearing trapping and relocation to a suitable release site will reduce direct mortality and the remaining population can be assisted through a revegetation program designed to create interconnected habitat through the built landscape. This would include gardens, verges and the Living Stream program. The regional (within 12km radius) population will persist (PDMDP Part B p.84).

The Quenda is a hardy species and the UBC is aware small populations can survive for some time in fairly degraded vegetation. But there is something absurd about expecting a small and vulnerable native mammal to make us of “gardens and verges” as part of their habitat in a developed area.

The “Living Stream” concept is unobjectionable in theory but odd to behold in practice. When the Southern Main Drain was diverted along a new channel adjacent to Tonkin Highway for the construction of the DFO development, it was claimed it would be developed and formed and planted as a “Living Stream.” But unseasonal rain eroded the newly-formed channel causing a massive amount of erosion. Very large quantities of sand were taken the relatively short distance down to the Swan River, where the sand bar at the mouth of the drain was seen to grow substantially. Perth Airport then lined the drain’s channel with limestone rocks. The problem here is that limestone is not a naturally occurring rock in this area of Bassendean sands and it looks jarringly out of place in something that has been touted as a recreation of a natural waterway. Using quarried limestone to recreate a natural feature in an area where limestone doesn’t even occur doesn’t make much environmental sense.

It is true the sides of the drain adjacent to the DFO have been planted out with native vegetation but it is an aggregation of native species – it is not an ecological community as such and would never be classified as such. What the UBC finds extraordinary is that within a couple of years of having established the new channel for the SMD extending from the Dunreath Drive Bridge over Tonkin Highway up to the north-western boundary of the airport, Perth Airport then gained environmental approval to put hundreds of metres of what we assumed was effectively part of the “Living Stream” underground and into pipes for the construction of the Costco development. It is true that the drain adjacent to the Costco site had not, to our knowledge, been revegetated but we had no reason to expect the channel upstream from the DFO was going to be piped and it clearly diminished the ecological connectivity of the revegetated channel adjacent to the DFO with respect to the revegetated Southern Main Drain further to the south on the western side of the airport.

A large part of the ecological value of waterways is their capacity to provide ecological connectivity – that is, to provide wildlife corridors, sometimes called “greenways.” Piped sections of a so-called “Living Stream” – especially if they run to many tens of metres are likely to constitute quite substantial ecological barriers – assuming the surface land use includes barriers such as roads, buildings or cleared spaces. Our research suggests that wildlife culverts are likely to be avoided by fauna if they are long, if they are narrow, or if they contain water – more or less the definition of a piped drain.

Whether **Native Water Rats (Rakalis)** are reluctant to enter pipelines, we do not know, but it is reasonable to expect that this might be the case. Our members familiar with Perth Airport have not reported seeing the Rakali in its natural areas but they do report having occasionally noticed

potential signs such as recently discarded pairs of koonac claws around wetlands in the vicinity of the Southern Main Drain. The *PDMDP* anticipates that sections of the Southern Main Drain – the “Living Stream” – might be piped to avoid contaminated soil (*PDMDP* Part B p.142). It hardly builds confidence in the quality of the habitat likely to be provided by the “Living Stream.”

Other Ecological Losses and Aboriginal Heritage

The *Airports Act 1996* and the *EPBC Act 1999* are loaded entirely in favour of development interests and as such proponents are only really required to address issues that are deemed to be of “national significance” regardless of any claims to the contrary. Both the *Airports Act 1996* and the *EPBC Act 1999* should provide the prospect for Commonwealth land that does not meet MNES thresholds to receive a measure of biodiversity protection. But it does not happen – even landscapes that do meet this criterion do not receive protection. The proponent is simply required to go through a bureaucratic process and then the natural areas are destroyed.

Anybody disputing this claim need only compare early and recent aerial or satellite images of the extent of the natural areas at Perth Airport taken over the last 20 years. These natural Australian landscapes have been destroyed and they have not been miraculously reproduced anywhere else. This represents a serious loss of natural habitat and biodiversity in a biogeographic region (southwest Australia) that is significant on a global scale for biodiversity and endemic species.

Furthermore this biogeographic region and the very significant portion thereof that concerns us here (the Swan Coastal Plain) has already experienced very severe environmental impacts and continues to face numerous threatening processes. The Commonwealth would be aware that the native vegetation that is being destroyed on the western side of Perth Airport provides some of the last decent refuges for various native birds, reptiles and insects for many kilometres and indeed some of the last decent refuges for these creatures within 10 kilometres of the Perth CBD. Birds such as the **Western Spinebill** have been declining in numbers on the Swan Coastal Plain for years. This bird was once common in Kings Park but is now scarcely seen at all. It does visit the western side of Perth Airport to feed in *Banksia* spp. and Woolly Bush as does the **Tawny Crowned Honeyeater** – which is also now seen in fewer numbers in the area. There are native birds such as **Thornbills, Weebills, Sitellas, White-winged Trillers and Pardalotes** which utilise the native vegetation habitually and which will simply be displaced.

Reptile species such as **Gould’s Monitor**, the **Western Heath Dragon**, **Lined Skinks** and **Burton’s Snake Lizard** have been seen in the area and they are all likely to be killed in the clearing process and thereby rendered locally extinct. Clearing is a brutal process and the legal cover does not hide the fact that it is a cruel fate that awaits many creatures living in the proposed clearing zone. An appeal to human decency in providing some refuge vegetation left intact is not unreasonable in this case and the UBC finds it quite appalling that the proponent has made no provision at all for conserving existing vegetation and habitat to any useful extent at all.

There would be native insects living in the project area, or which visit the project area, which would be barely known to science in terms of their lifecycles and ecological functions and the **Native Bee (*Hylaeus globuliferous*)** mentioned in the (*PDMDP* Part B p.91) is probably only one of a number of scarce and declining native insect or other invertebrate species that occur in the area but which have simply not been recorded or studied.

This biodiversity is all **nationally significant** as Perth Airport and surrounds are part of the **globally recognised South West Biodiversity Hotspot**. Thus the distinction often drawn between

“locally significant” and “regionally significant” native vegetation around Perth is irrelevant for the simple reason that when a region is so unique in the world, let alone Australia, and it has been so severely affected by European settlement, even small patches should be deemed both regionally and nationally significant.

Wetland significance and indigenous significance

Much of the project area is classified as “wetland” and with the topography being so flat and the water table being so high, it is possible to have Banksia Woodland in close proximity to dampland heath and paperbarks. Perth Airport once contained massive wetland areas and the landscape has been hugely altered through artificial drainage and construction. These wetland areas would have been exceedingly productive in terms of providing support for a myriad of life forms from those consisting of a few cells to large mammals and waterbirds. Such an environment must have held a great attraction for the indigenous population of the area – with any number of potential food resources being available throughout the year. It would be entirely regrettable if all the remnant wetland areas at the airport were to be destroyed and one would think the Commonwealth would have sufficient respect for Australia’s indigenous history and heritage, and sufficient sense of its responsibility to protect its biodiversity, to require Perth Airport to make reasonable allowances for the protection of such landscapes.

Aboriginal artefacts

Clearly there were archaeological artefact scatters in the project area, and these appear to no longer have status as Aboriginal sites under Section 5(a) of the *Aboriginal Heritage Act 1972* (WA) largely because surface artefacts have been physically picked up or because of “ground disturbance” (PDMDP Part B p. 159).

It has been our observation that if artefacts are found on the surface, excavations are likely to reveal more artefacts. In fact there could be more artefacts beneath the surface than ever appeared on the surface. These sandy Bassendean soils have dunes and swales that move and change shape over time and when sandy areas are disturbed by clearing for quarrying or sundry other purposes the sand blows about in such a way that artefacts can be either buried or exposed to a greater or lesser degree. The fact that someone collected artefacts at a site at one time or couldn’t see any surface artefacts at another time does not mean there are not artefacts in the ground – possibly at depth.

It was relatively easy to find numerous Aboriginal artefact scatters at Perth Airport up until a few years ago but clearing, drainage works, and development have disturbed or destroyed many of them. What their existence – sometimes now only in records - does tend to indicate is that the area was quite heavily utilised by Aboriginal people for a long period of time, probably right up to European settlement. Our comment is that the protection of these sites should be a matter of interest and concern to all Western Australians – indeed all Australians – and both Perth Airport and the Commonwealth Government should approach the issue with that presumption and from that perspective.

It is very disappointing that the Commonwealth has not seen fit to protect both natural and indigenous heritage together at Perth Airport given the clear archaeological evidence its bushland and wetlands have been utilised by indigenous people for thousands of years.

PFAS Contaminated Land

The issue of PFAS contamination at Perth Airport and various other locations around Western Australia is one of serious concern and the *PDMDP*’s coverage of the subject does not really reflect

how potentially harmful the chemical(s) can be and how readily they might be mobilised and transported in a contaminated environment. The following information is set out in the Government of Western Australia, Department of Regulation Guideline entitled, *Interim Management Guideline on the Assessment and Management of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) Contaminated Sites Guidelines (2016)*:

PFAS are known to be persistent, bioaccumulative, and toxic and, due to their persistence in the environment and moderate solubility, can be transported long distances (potentially kilometres) (Scheringer, 2009) in water and air, and transfer different media (e.g. soil, sediment, surface water and groundwater).

It would be fair to say it has been suggested that governments around Australia – notably the Commonwealth Government - have not been particularly forthcoming about the risks posed to the community by PFAS chemicals and about areas likely to be significantly affected. There has been considerable media coverage of difficulties faced by citizens living and working in areas where authorities have had reason to believe there is - or could be - PFAS contamination and it is a subject of some controversy.

There have been credible studies that have shown exposure to PFAS chemicals can cause serious health impacts in laboratory animals and there is good reason to believe human health might also be at risk. In the context of the proposed project, both human health and potential ecological impacts need to be considered. The *PDMDP* does not provide much information as to the nature of the risks PFAS chemicals might pose to human health or the environment and appears to play down the significance of the PFAS chemical contamination that the data would indicate has been detected in the project area. **Given there was fire training area in the project area (Fire Training Area B Airport West (South)) and the fire-fighting foams that contained PFAS were used on the airport (*PDMDP* Part B p.106), surely it is highly likely the use or storage of fire-fighting foams caused PFAS contamination in the area.** The *PDMDP* seems only to concede that this *may* have occurred (Part B p.106).

Analysing chemical data is not our area of expertise but it is disturbing to note that groundwater in the project area has been detected with PFOS/PFHxS concentrations well above the HEPA screening criteria value of 0.7 [microlitres] for “recreational use water” and that, “Groundwater and surface water concentrations exceed the freshwater and marine water guideline values for 95% species protection (PFOS – 0.13 [microlitres])

It is also concerning that PFOS/PFHxS concentrations in soil in the project area have been found to exceed the HEPA (2018) human health screening criteria values for “residential land use with garden/accessible soil (PFOS/PFHxS = 0.009mg/kg and PFOA = 0.1 mg/kg)” (*PDMDP* Part B p. 109). We note also that the AECOM (2018) investigation detected a soil PFOS concentration of 0.13 mg/kg, which “exceeds the ecological guidelines values for indirect exposure (0.01 mg/kg)” (*PDMDP* Part B p.109).

The *PDMDP* attempts to minimise the significance of the levels of PFAS chemicals detected in ground and surface water and in the soil in the project area but it does not alleviate our concerns about potential impacts on the environment and even on human health. The *PDMDP* tries to make the argument that the HEPA ecological guideline value for indirect exposure of 0.01 mg/kg should not apply to the project area because:

“The NEMP states that the higher criterion of 0.14 mg/kg may be applicable where the site is intensively developed (more than 80% hard stand per hectare) and where secondary consumers are effectively absent from the site. Following the development of the project it is likely that the limited accessible soil and absence of ecological

diversity will mean the higher criterion (0.14 mg/kg) is more applicable to the site, to which [sic] all historical PFOS concentrations are below (*PDMDP* Part B p.109)

Quenda

Elsewhere in the *PDMDP*, in its discussion of the fate of the Quenda in the project area, the following statement appears:

There is likely to be a major impact to Quenda in the project area, but a minor impact to the Quenda population across the surrounding airport estate and regionally through the loss of foraging habitat and a potentially altered local distribution of the species; this is not expected to have a significant impact at the species-scale. Pre-clearing trapping and relocation to a suitable release site will reduce direct mortality, and the remaining population can be assisted through a revegetation program designed to create interconnected habitat through the built landscape. This would include gardens, verges, and the Living Stream program (*PDMP* Part B p.85).

So the project area will have a “Living Stream” and be part of a “revegetation program designed to create interconnected habitat through the built landscape” but it will also be “80% hard stand” and have “an absence of ecological diversity” depending upon which environmental issue the *PDMDP* happens to be addressing.

It is concerning enough that the project area shows evidence of significant contamination with PFAS chemicals, both in the soil and groundwater but it is the nature and location of the site which makes it even more troubling. The site is largely classified as wetland and it has a relatively high water table. The Southern Main Drain flows through the project area and it has the potential to transport PFAS contaminated groundwater and even soil further downstream. And further downstream is the Swan River, only a few kilometres away. It is known that PFAS chemical are carried down drains and waterways and that the chemicals can bioaccumulate and biomagnify. That is, they can accumulate in the bodies of organisms over time and they can become more concentrated in organisms higher up the food chain. Such chemicals can therefore have a significant impact on biota even if they are only present in the environment in very low concentrations. The development of the project area would involve excavations, earthmoving, dewatering and even drainage diversions which could mobilise these chemicals and, among other possibilities, lead to greater quantities of the chemicals being carried downstream - even to the Swan River.

The people of Perth may not care greatly about the ecology of the airport’s Southern Main Drain but the Swan River is a different matter. It is known that Dolphins in the Swan River, for example, have been exposed to a range of contaminants including PFAS (WA Minister for the Environment Hon. S.N. Dawson – Question on Notice No. 1383 WA Legislative Assembly, 12 June, 2018 by Hon. Alison Xamon). It has been found that Swan River Dolphins have high concentrations of PFAS relative to dolphins studied in other southern Australian sites. Indeed one study found “Dolphins that reside in heavily industrialised regions particularly the Swan River (Western Australia) and the a lesser degree Port River (South Australia) had some of the highest PFOS concentrations found in marine mammals worldwide” (*Per and polyfluorinated alkyl substances (PFAS) in the marine environment – Preliminary ecological findings, p.4, – EPA South Australia, March 2017*

The UBC notes that there are “*PFAS Areas of Potential Environmental Concern*” (*PDMDP* Part B p. 106) located in the northern part of the airport that seem reasonably close to the airport’s Northern Main Drain. We also note that there are “Two sections (two sites made up of a total of eight parcels of land) of the Perth Airport North Main Drain in South Guildford, on land in State jurisdiction (123 Beverley Terrace and 64 Great Eastern Highway), classified as *contaminated* –

restricted use” (Sites Regulated under the Contaminated Sites Act 2003) (DER website – *PFAS Investigations in Western Australia*).

The UBC is not satisfied that the threats to human health and ecosystems of PFAS chemicals have been determined sufficiently to risk disturbing sites that show elevated levels of contamination – particularly when the sites lie on drainage lines leading straight to the Swan River and particularly when there are suburban residential areas located close by. This issue alone is enough to warrant the Commonwealth rejecting the clearing project set out in the PDMDP.

On the subject of excavating moving soil, it is noted that the *PDMDP* includes plans to establish a large detention basin at the southern end of the project area (*PDMDP* Part B Figure 3-5, p.28). We would make the observation that a similarly-sized detention basin was excavated immediately at the Tonkin Highway-end of the 06/24 runway. The curious thing about this exceedingly large excavation is that even after some very significant rainfall events – including the one that caused so much erosion in the “Living Stream” development – it does not seem to take any water out of the existing drainage system. It is interesting that the proposed new large detention basin is also to be located very close to the end of a major runway where there would be obvious limitations on development. It is prudent to plan for major flood events but such structures were never part of the drainage system on the western side of the airport in the past – when the climate was considerably wetter. These large excavations might provide some useful fill for development projects but it is questionable that they are really necessary.

CONCLUSION

The Urban Bushland Council WA Inc. is strongly opposed to the project set out in the PDMDP. There are many compelling reasons involving MNES and other factors as follows.

1. It involves clearing endangered Banksia Woodlands of the Swan Coastal Plain TEC which is supposed to be protected under the EPBC Act to prevent its further loss of extent and condition.
2. It involves clearing poorly conserved Bassendean Complex – Central and South Vegetation, of which only 1.2% is in secure tenure for conservation in the Perth Peel Region.
3. It involves removing valuable habitat for threatened Black Cockatoo species – particularly Carnaby’s Cockatoo and the Forest Red-tailed Black Cockatoo.
4. It involves destroying populations of two Priority flora species – *Johnsonia pubescens* subsp. *cygnorum* and *Platycace ramosissima*.
5. It destroys valuable habitat for such vulnerable fauna as the Quenda, and it removes habitat utilised by many species of native birds and reptiles.

And this is just to name some of its deleterious environmental impacts.

6. The Urban Bushland Council does not accept that the environmental offset system can justify this project. The purchasing of existing habitat areas does not create more habitat for creatures suffering the consequences of habitat loss and the UBC is very sceptical regarding the likelihood of the proponent being able to bring about the successful “restoration” Banksia Woodlands of the Swan Coastal Plain TEC – even after 20 years. These complex ecosystems cannot be recreated.

7. Also of great concern are the levels of PFAS/PFOS chemicals in the proposed project area. While the full threat to health and the environment posed by these chemicals is still being

determined, it would be prudent to avoid disturbing its soils and groundwater – especially when the proposed project area contains a major drainage line leading straight to the Swan River.

We look forward to your serious reconsideration of these matters.

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