

Offset Strategy

DFO Living Stream and Site 6

FEBRUARY 2019





Contents

1	Purpose	1
2	Project Description	2
3	Impact Assessment Process	4
4	Proposed Offset	8
5	Consistency with Offsets Policy	15
6	Implementation Schedule	17
7	Conclusion	18
8	References	19



1 Purpose

Perth Airport is one of the most important public transport infrastructure facilities in Western Australia. Perth's relative isolation and the vast distances between Australian population centres make air travel – and Perth Airport – indispensable to both the people of Western Australia and the State's economic, social and cultural development.

The Perth Airport estate is 2,105 hectares in size and is located 12 kilometres east of Perth's Central Business District. The land is owned by the Commonwealth of Australia. On 1 July 1997, the operation and management of Perth Airport was transferred from the Commonwealth Government to Westralia Airports Corporation under a 50-year lease with a 49-year option for extension. In 2011, Westralia Airports Corporation changed its trading name to Perth Airport Pty Ltd.

While Perth Airport's primary function is the operation of Western Australia's principal centre of aviation, the airport estate also plays a significant role in providing high quality commercial, industrial and logistics facilities for the continued growth and development of the State's economy.

The purpose of this document is to provide an Offset Strategy to address residual impacts to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed Banksia Woodland of the Swan Coastal Plain threatened ecological community (Banksia Woodland TEC) as a result of two development projects within the airport estate: the DFO Living Stream and Site 6.

This Strategy has been developed to provide offsets for impacts to Banksia Woodlands TEC as a result of the DFO Living Stream and Site 6 projects in accordance with the requirements of the Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy (the Offsets Policy) (SEWPaC 2012a) and the Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community (Conservation Advice for Banksia Woodland TEC) (Threatened Species Scientific Committee, 2016).

This Offset Strategy:

- outlines the impacts to the Banksia Woodland TEC, to be offset, as a result of the DFO Living Stream and Site 6 projects (see Section 3),
- includes a general description of properties containing potential offset site/s and the site characteristics that will be used for selecting the final offset site/s (see Section 4),
- demonstrates how the proposed offset meets the principles of the Offsets Policy (see Section 5), and
- includes a schedule of offset management measures for implementing the Offset Strategy (see Section 6).



2 Project Description

This Offset Strategy will deliver offsets for impacts to Banksia Woodlands TEC resulting from two projects within the Perth Airport estate: the DFO Living Stream and Site 6.

The Direct Factory Outlet (DFO) project was completed in October 2018. It required the construction of a stormwater management system to support the development of the retail facility. The stormwater system was constructed as a 'Living Stream' open vegetated channel that mimics the characteristics of a natural stream. Water quality improvement is achieved by aquatic vegetation and natural biological processes helping to oxygenate the water and removing nutrients and non-nutrient contaminants. This is to support natural surface water management and control of peak flows. It is also designed to improve water quality prior to discharge of the stormwater off the airport estate (Perth Airport, 2017).

The Site 6 project comprises the construction of a large format retail outlet and associated vehicle access and car parking. Works are planned to commence in early 2019 (Perth Airport, 2018).

Figure 2-1 shows the location and boundaries of the DFO Living Stream and Site 6 project sites within the Perth Airport estate.



Figure 2-1 Location of the DFO Living Stream and Site 6 project areas within the airport estate
Source: Perth Airport



3 Impact Assessment Process

3.1 LEGISLATIVE CONTEXT

The *Airports Act 1996* (Cth) (Airports Act) is the principal statute regulating the ownership, management and operation of leased Commonwealth airports. Part 5 and Part 6 of the Airports Act prescribe controls over land use planning, environmental management and development at airports.

Section 90 of the Airports Act states that an airport must not carry out a major development unless the development is in accordance with an approved major development plan (MDP). A MDP requires a 60 business day public comment period and approval by the relevant Commonwealth Minister. The definition of a major development under Section 89 of the Airports Act includes 'development of a kind that is likely to have a significant environmental or ecological impact'. Section 91 of the Airports Act requires a MDP to include an assessment of the environmental impacts that might reasonably be expected to be associated with the development and the plans for ameliorating, preventing and dealing with the environmental impacts.

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) provides the Commonwealth framework for, amongst other things, protecting and managing nationally important flora, fauna, ecological communities and heritage places that are defined in the EPBC Act as 'matters of national significance'. The EPBC Act also confers jurisdiction over actions that have the potential to make a significant impact on the environment where the actions affect, or are taken on, Commonwealth land or are carried out by a Commonwealth agency.

Section 160 of the EPBC Act requires the Minister administering the Airports Act (Federal Minister for Infrastructure) to obtain advice from the Minister responsible for the EPBC Act (Federal Minister for the Environment) for the adoption or implementation of an airport's MDP.

In addition, a permit under Part 13 of the EPBC Act is required for any activity which may kill, injure, take, trade, keep or move a member of a Commonwealth listed threatened species or ecological community, a member of the listed migratory species, or a member of a listed marine species in or on a Commonwealth area. Applications for Part 13 permits are placed on the Department of the Environment and Energy's (DEE) website for 10 business days for public comment.

3.2 DFO LIVING STREAM

The MDP for the DFO development was approved by the Hon. Darren Chester MP, [then] Minister for Infrastructure and Transport, on 10 November 2016.

The Living Stream stormwater management works that were required to support the DFO development had not been included in the DFO MDP clearing boundary as the works did not meet the requirements for MDP approval at that time. However, with the listing of Banksia Woodland as a TEC in September 2016, this component of works now met the MDP criteria (of a development of a kind that is likely to have a significant environmental or ecological impact) and a Minor Variation to the MDP for the DFO was prepared and released for public comment. The DFO MDP Minor Variation was approved by the Hon. Darren Chester MP, [then] Minister for Infrastructure and Transport, on 5 April 2017.

An application was also made under Part 13 of the EPBC Act for the clearing of the Banksia Woodland TEC as part of the DFO Living Stream project. Permit E2017-0128 was issued on 6 April 2017 and requires Perth Airport to provide an offset to compensate for the loss of Banksia Woodland. Following delays securing an offset, Perth Airport applied for an extension of the period under the Permit to provide the offset. The Permit was varied on 8 February 2019 to require Perth Airport to develop and implement an Offset Strategy to compensate for the loss of Banksia Woodland. The amended condition of the Permit requires that:

2. *To compensate for the loss of Banksia Woodland of the Swan Coastal Plain the permit holder must by 25 February 2019, submit an Offset Strategy to the Minister for written approval. The approved Offset Strategy must be implemented. The Offset Strategy must as a minimum:*



- i. *address the requirements of b) and c) of the MDP approval;*
- ii. *specify the impacts to Banksia Woodland of the Swan Coastal Plain to be offset;*
- iii. *include a general description of the property/ies containing the proposed offset site/s;*
- iv. *describe how the approved offset site/s will be protected for conservation purposes over the long term;*
- v. *outline how the proposed offsets are consistent with the principles of the EPBC Act Environmental Offsets Policy; and*
- vi. *contain a schedule for implementing the Offset Strategy so that approved offset management measures commence no later than 13 September 2019.*

3.3 SITE 6

Referral decision EPBC 2017/8023 was made on 20 September 2017 and determined that assessment and advice was required under Section 160 of the EPBC Act for the adoption of the MDP for Site 6 (Perth Airport, 2018).

The MDP for Site 6 was approved by the Hon. Michael McCormack MP, Minister for Infrastructure, Transport and Regional Development, on 13 November 2018. The Minister's decision incorporated the advice of the Minister for the Environment as conditions of approval, which requires an offset strategy to compensate for the impacts of the action on the Banksia Woodland TEC. The offset strategy must be approved by the Minister for the Environment prior to the action commencing.

An application was also made under Part 13 of the EPBC Act for the clearing of the Banksia Woodland TEC as part of the Site 6 project. Permit E2018-0142 was issued on 22 February 2019 and requires Perth Airport to:

2. *To offset the impacts of the action the permit holder must:*
 - a. *prepare an Offset Strategy to compensate for the impacts of the action on the Banksia Woodland of the Swan Coastal Plain; and*
 - b. *submit the Offset Strategy to the Minister for approval; and*
 - c. *not commence the action unless the Minister has approved the Offset Strategy; and*
 - d. *implement the approved Offset Strategy for a minimum of 20 years (or otherwise determined by the Minister in writing) from the date of commencement of the action; and*
 - e. *publish the Offset Strategy on the website:*
 - i. *not later than seven (7) business days after the commencement of the action; and*
 - ii. *until three (3) months after ceasing the implementation of the Offset Strategy.*
3. *The Offset Strategy required under condition 2 must:*
 - a. *specify the impacts to Banksia Woodland of the Swan Coastal Plain to be offset;*
 - b. *identify a suitable offset site/s, include a general description of the property/ies containing the offset site/s, and describe how the site/s will be managed and protected for conservation purposes over the long term; and*
 - c. *outline how the proposed offsets are consistent with the principles of the Environmental Offsets Policy;*
 - d. *be prepared in accordance with the Department's Environmental Management Plan Guidelines (2014);*
 - e. *contain a schedule for implementing the Offset Strategy so that approved offset management measures commence no later than 13 September 2019.*



3.4 IMPACT TO BANKSIA WOODLAND TEC

As shown in Table 3-1, the MDP (Perth Airport, 2017) identified that the DFO Living Stream development would result in a total of 1.99 hectares of Banksia Woodland TEC being cleared. For the Site 6 project area, 2.49 hectares of vegetation meets the criteria for classification as Banksia Woodland TEC (Perth Airport, 2018).

Table 3-1 Project areas and Banksia Woodlands TEC areas

MDP	Total Project Area	Banksia Woodlands TEC
DFO Living Stream	4.56 hectares	1.99 hectares
Site 6	7.09 hectares	2.49 hectares

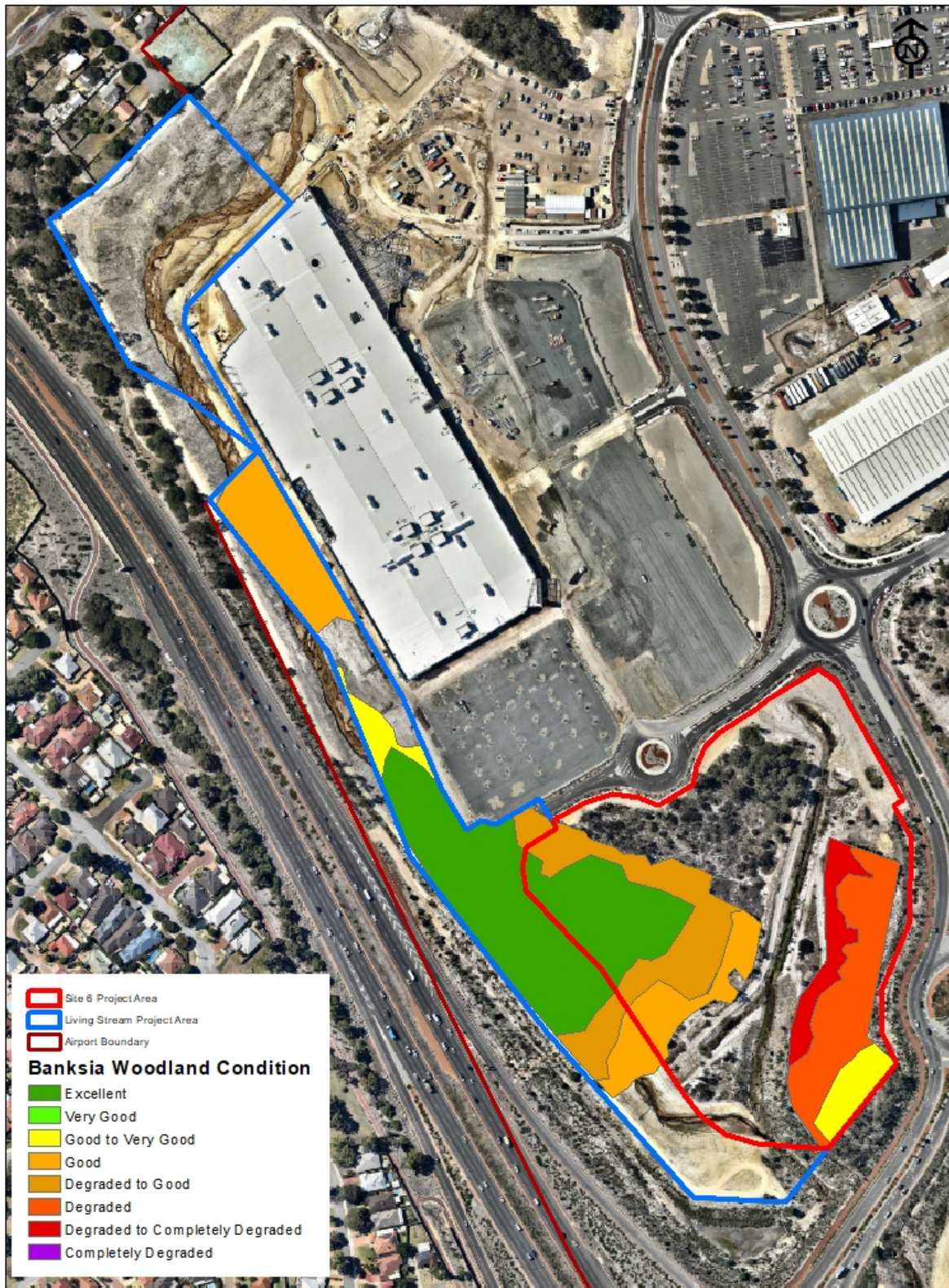
Combined, the DFO Living Stream and Site 6 projects result in the clearing of 4.48 hectares of Banksia Woodland TEC which is comprised of two TEC patches as defined by the Conservation Advice for Banksia Woodland TEC (Threatened Species Scientific Committee, 2016). Figure 3.1 shows the location of this habitat within the project areas. Two floristic community types (FCT) comprise the 4.48 hectares of Banksia Woodland TEC, being:

- 4.34 hectares of Central *Banksia attenuata* – *Banksia menziesii* woodlands (FCT 23a), and
- 0.46 hectares of Low lying *Banksia attenuata* woodlands or shrublands (FCT 21c).

With regard to the Conservation Advice criteria for Banksia Woodland TEC (Threatened Species Scientific Committee, 2016), these patches are considered to be of low quality for the following reasons:

- the patches are small (less than 10 hectares) and have a large perimeter/ area ratio which exposes the patches to greater edge effect disturbances,
- there is low connectivity to other significant Banksia Woodland remnants,
- the patches are not dieback free, and
- the average native species richness is below the recorded range for the TEC. Surveys of the DFO Living Stream and Site 6 project areas (Focused Vision Consulting, 2017) found that the Banksia Woodland communities contained an average of 24 to 33 native species per 100 square metres which is at or below the lower end of the accepted range (40 species for FCT 21c and 62 species for FCT 23a) of species richness values for the FCTs.

Further detail on the assessment of Banksia Woodlands TEC within the project areas is described in the MDP Minor Variation for the Direct Factory Outlet (Perth Airport, 2017) and the MDP for Site 6: Large Format Retail Outlet (Perth Airport, 2018), available at perthairport.com.au/majordevelopmentplans.



0 25 50 100 Meters

Banksia Woodland Impacted

Date: 4/12/2018

A4

Figure 3-1 Banksia Woodlands within the project areas
 Source: Focused Vision Consulting, 2017



4 Proposed Offset

4.1 DESCRIPTION

Perth Airport will offset the residual impact of the clearing of 4.48 hectares of Banksia Woodlands TEC within the DFO Living Stream and Site 6 project areas by restoring cleared or degraded areas of the respective FCTs in the Perth metropolitan area. The objective of this Strategy is to:

- Increase the area of Banksia Woodland that meets the diagnostic criteria for the TEC,
- Improve the condition of remnants and corridors in the metropolitan area through removing fragmentation and threats to the remnants,
- Restore TEC within close proximity to the impact area of clearing, and
- Maximise 'like for like' offset outcomes (that is, providing offsets of the same FCTs and not less than the species richness of the impact sites).

Options for the offset site/s are being developed with the Western Australia Department of Biodiversity, Conservation and Attractions (DBCA). The preference is for degraded or cleared areas within the Perth Metropolitan Regional Parks System (PMRPS).

The restoration offset site/s will be selected based on site characteristics with a preference given to land that:

- Is as close as possible to Perth Airport and within the PMRPS,
- Is located on soils and landforms most similar to the impact site at Perth Airport (in order to provide confidence that the restored ecosystem will provide a 'like for like' offset),
- Increases the size and or connectivity of existing patch/es of the Banksia Woodland TEC and respective FCT,
- Minimises and/or manages threats where possible to ensure the success of the restoration (e.g. Phytophthora dieback and significant or declared weeds),
- Has secure tenure within an existing conservation reserve. The offset will ultimately provide a higher quality area of TEC than that of the impact sites (when compared to criteria within the Conservation Advice for Banksia Woodland TEC) for the following reasons:
 - › Will extend an existing patch or patches that are greater than 10 hectares and will achieve the appropriate patch perimeter to area ratio. This will allow the restoration project to provide a sustainable long-term benefit to the conservation of the TEC, and
 - › Will restore a highly diverse vegetation community, with species richness within the range of the FCTs and not less than the species richness at the impact site.

Perth Airport will deliver sufficient offsets for the loss of 4.48 hectares of Banksia Woodlands TEC.



The Conservation Advice (Threatened Species Scientific Committee, 2016) identifies that FCT 23a is not listed as 'threatened' or 'priority' in Western Australia. It primarily occupies mid to upper slopes of sand dunes in the Bassendean sand unit. FCT 21c is listed as a 'Priority 3' priority ecological community (PEC) in Western Australia. It occurs in moist habitats usually associated with margins of wetlands and low lying palusplains with water tables relatively close to the ground surface. The current Swan Coastal Plain floristic quadrat dataset for FCT 21c and FCT 23a, held by the DBCA, is shown in Figure 4-1 and identifies:

- 15 quadrats of FCT 21c (Low lying *Banksia attenuata* woodlands or shrublands) located in remnant vegetation patches within 30 kilometres of Perth Airport, and
- 41 quadrats of FCT 23a (Central *Banksia attenuata* – *Banksia menziesii* woodlands) located in remnant vegetation patches within 30 kilometres of Perth Airport.

This demonstrates that suitable habitat occurs for both FCTs in proximity to Perth Airport, with patches having a wide variety of habitat qualities.

The DBCA is supportive of undertaking ecological restoration activities within suitable conservation reserves. There are numerous options available and the most suitable site option will be determined following confirmation of the area of offset required. As an example, initial desktop investigations have identified three potential offset areas, proposed by the DBCA, within a current or planned conservation reserve. This assessment considered aerial imagery to determine whether dunal (FCT 23a) and wetland margin (FCT 21c) habitats were present and focused on highly disturbed and totally cleared areas as restoration targets. Approximately 19.5 hectares of lower slope/moist habitat (FCT 21c) and 61.5 hectares of higher dunal habitat (FCT 23a) areas were identified across the initial sites as shown in Figure 4-1.

The initial sites identified are located within the Jandakot Regional Park (part of the PMRPS), which is approximately 2,362 hectares of land comprising Crown reserves vested in local government authorities, the Minister for Corrective Services, and the Conservation Commission, as well as freehold land owned by the Western Australia Planning Commission, and privately-owned land. The Park represents a network of land with regionally significant nature conservation, landscape and recreation value. The initial sites being considered are:

- Potential Site 1 (Figure 4-2) is currently private property that is planned to be purchased by the Western Australia Planning Commission and managed by the DBCA. The use of this site would be dependent on the timing of the planned land purchase and establishment of a *Conservation and Land Management Act 1984* (WA) Section 8A agreement.
- Potential Site 2 (Figure 4-3) and Potential Site 3 (Figure 4-4) are both freehold land owned by the Western Australian Planning Commission and managed as a conservation reserve by the DBCA under a *Conservation and Land Management Act 1984* (WA) Section 8A agreement.

As identified in the Implementation Schedule (see Section 6), further desktop and field investigations will be undertaken with the DBCA to assess other potential sites within the Perth metropolitan area prior to the preferred site being proposed to the DEE.

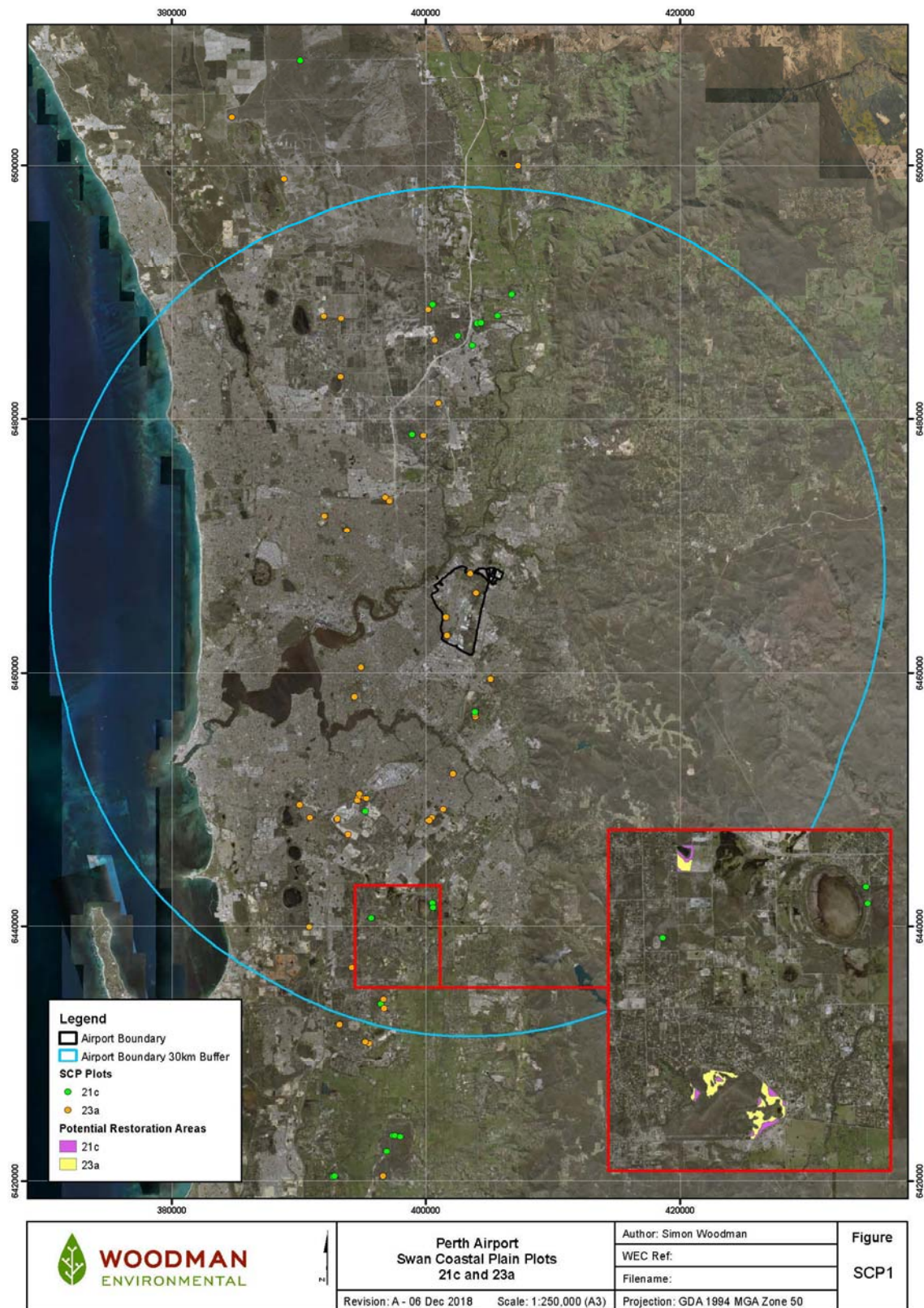
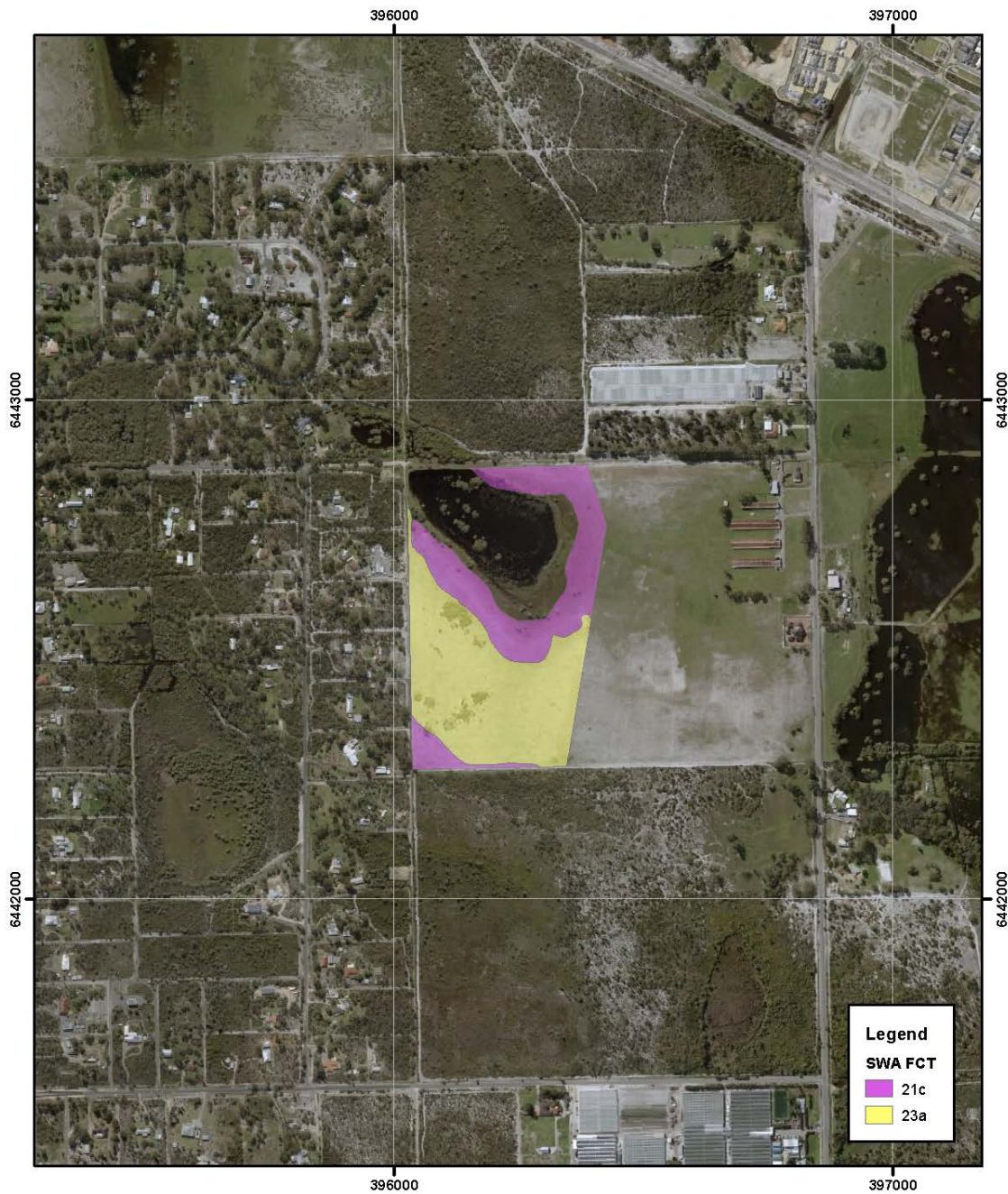


Figure 4-1 Locations of known 21c and 23a FCTs within 30 kilometres of Perth Airport and relationship to potential offset sites
 Source: Woodman Environmental, 2018





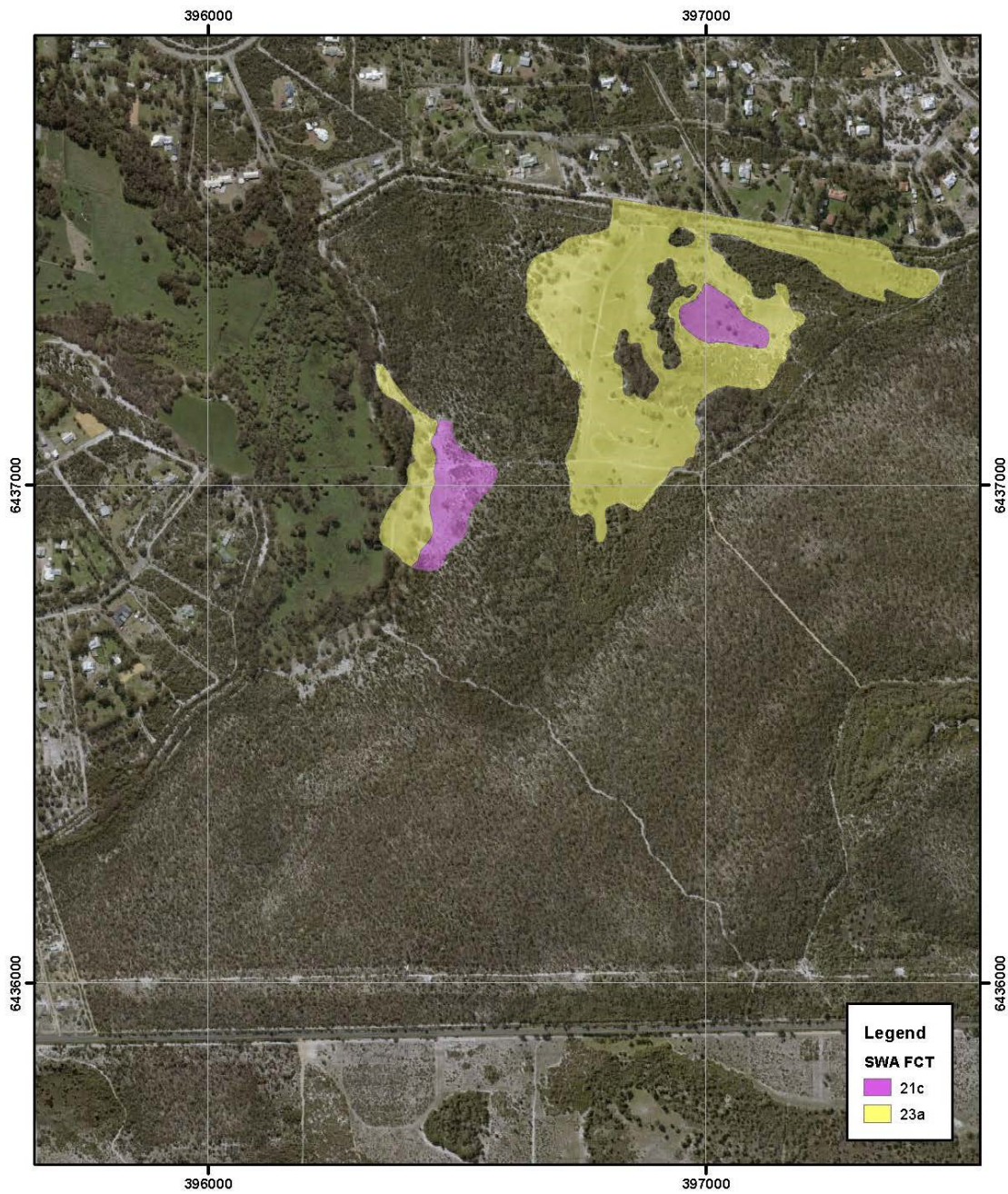
Potential Rehabilitation Areas of SCP 21c and 23a	Author: Greg Woodman	
	WEC Ref: PAIR18-57	
 <small>This map should only be used in conjunction with WEC report FQM14-47-01.</small>	Filename: PAIR 18-57-Potential-Rehab-Areas	Figure 1.1
	Scale: 1:10,000 (A4)	
	Projection: GDA 1994 MGA Zone 50	
	Revision: A - 17 April 2015	

Figure 4-2 Potential Site 1 within Jandakot Regional Park
Source: Woodman Environmental, 2018





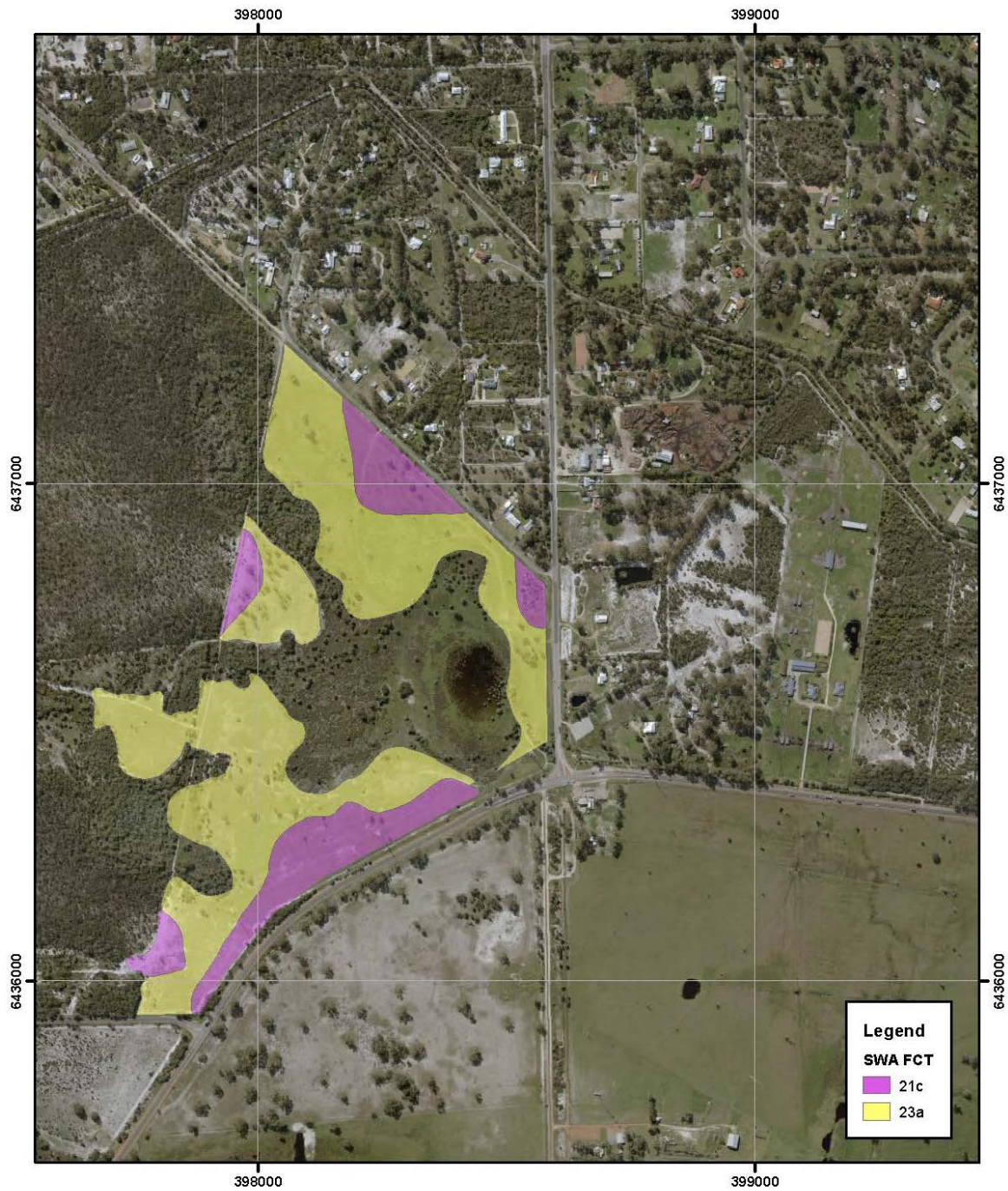
<p style="text-align: center;">Potential Rehabilitation Areas of SCP 21c and 23a</p>	Author: Greg Woodman	
	WEC Ref: PAIR18-57	
 <p style="font-size: small;">This map should only be used in conjunction with WEC report FQM14-47-01.</p>	Filename: PAIR 18-57-Potential-Rehab-Areas	<p style="text-align: center;">Figure</p> <p style="font-size: large; text-align: center;">1.2</p>
	Scale: 1:10,000 (A4)	
	Projection: GDA 1994 MGA Zone 50	
	Revision: A - 17 April 2015	

Figure 4-3 Potential Site 2 within Jandakot Regional Park
 Source: Woodman Environmental, 2018





<p style="text-align: center;">Potential Rehabilitation Areas of SCP 21c and 23a</p>	Author: Greg Woodman	 Figure 1.3
	WEC Ref: PAIR18-57	
	Filename: PAIR 18-57-Potential-Rehab-Areas	
This map should only be used in conjunction with WEC report FQM14-47-01.	Scale: 1:10,000 (A4)	
	Projection: GDA 1994 MGA Zone 50	
	Revision: A - 17 April 2015	

Figure 4-4 Potential Site 3 within Jandakot Regional Park
Source: Woodman Environmental, 2018



Following agreement with the DBCA and the DEE on the proposed offset site/s, a Restoration and Monitoring Plan (RMP) will be prepared that will detail:

- Restoration objectives,
- Offset completion criteria,
- Implementation methods,
- Monitoring and reporting program,
- Risk management and contingency actions, and
- Site maintenance/management program.

The RMP will be submitted to the DEE for approval prior to implementation of the offset. The Plan will incorporate the principles of the Society for Ecological Restoration National Restoration Standards (developed by the Society for Ecological Restoration Australasia (SERA)) to guide the planning and assessment of the offset project. The Standards list the principles that underpin current best practice ecological restoration and the steps required to plan, implement and monitor restoration projects to increase their chance of success (Society for Ecological Restoration, 2018).



5 Consistency with Offsets Policy

The Offsets Policy specifies that a suitable offset must meet eight principles (SEWPaC, 2012a). Table 5-1 demonstrates how the proposed offset is consistent with the principles of the Offset Policy.

Table 5-1 Consistency of proposed offset with Offsets Policy principles

Offsets Policy Principle	Proposed Offset
Suitable offsets must deliver an overall conservation outcome that improves or maintains the viability of a protected matter	The offset will provide an increased area and quality of the TEC within the Perth metropolitan area and through appropriate design and implementation will increase the integrity, quality and ecological functioning of existing patch/es of TEC. The size of the offset site/s will be determined by the DEE through application of the Offsets Policy and Offsets Assessment Guide (SEWPaC 2012a and 2012b).
Suitable offsets must be built around direct offsets but may include other compensatory measures	Restoration of Banksia Woodland TEC is a direct offset.
Suitable offsets must be in proportion to the level of statutory protection that applies to the protected matter	The area of the offset site/s will be determined by the DEE through application of the Offsets Policy and Offsets Assessment Guide (SEWPaC 2012a and 2012b). The Guide accounts for the level of statutory protection provided to the TEC, which is listed as 'endangered' under the EPBC Act.
Suitable offsets must be of a size and scale proportionate to the residual impacts on the protect matter	The area of the offset project/s will be determined through application of the Offsets Assessment Guide (SEWPaC 2012a and 2012b). The Guide calculates offsets to be of a size and scale proportionate to the residual impacts on the protected matter.
Suitable offsets must effectively account for and manage the risk of the offset not succeeding	Risks of the offset not proceeding are managed by: <ul style="list-style-type: none"> • Locating the offset site/s within land managed by the DBCA for conservation purposes. The offset will be protected as part of the conservation reserve system and will benefit from the knowledge and expertise of the DBCA to plan and implement effective land management and restoration projects. • Utilising the principles described in the Society for Ecological Restoration National Restoration Standards for planning and implementing restoration offset projects (Society for Ecological Restoration, 2018). • Ensuring the Restoration and Monitoring Plan (RMP) will be developed with advice and approval from the DBCA and approved by the DEE prior to offset project commencement. In this way regulatory review of the offset projects will help ensure an effective offset.
Suitable offsets must be additional to what is already required, determined by law or planning regulations or agreed to under other schemes or programmes	The offset is required to satisfy the requirements of the EPBC Act. There are no obligations or commitments in park management plans or under legislation for the land manager (the DBCA) to achieve the restoration/offset outcomes proposed in this Strategy or in the RMP.



Offsets Policy Principle	Proposed Offset
<p>Suitable offsets must be efficient, effective, timely, transparent, scientifically robust and reasonable.</p>	<p><u>Efficient</u></p> <p>The RMP will directly offset the loss of 4.48 hectares of the TEC through the application of existing knowledge and technology. Species establishment will be achieved through effective practices utilised in other Banksia Woodland TEC restoration and rehabilitation programs/projects. The offset site will be chosen to ensure that an in situ natural landform and soil profile exists on the site to reduce the requirement for expensive earthworks and the associated risks to achieving project outcomes.</p> <p><u>Effective</u></p> <p>The RMP will restore an area of Banksia Woodland within the Perth metropolitan area that is larger than that being cleared through the DFO Living Stream and Site 6 projects. The offset will be situated to enhance the integrity, quality and extent of urban bushland and, where possible, improve ecological functions of the region.</p> <p><u>Timely</u></p> <p>The establishment and associated management actions will gradually improve the ecological functioning of the site over time in terms of hydrological function, habitat for flora and fauna, and reductions in weed infestations.</p> <p><u>Transparent</u></p> <p>The RMP will contain a monitoring and reporting requirement. The offset site will be located on existing conservation lands and as such will be subject to the oversight of the DBCA as the land manager.</p> <p><u>Scientifically robust</u></p> <p>The RMP will be based on the standards for the practice of ecological restoration in Australia and will be aligned with the findings of the Banksia Woodland Restoration Project undertaken by the DBCA within the Jandakot Regional Park between 2011 and 2015. The RMP will be implemented following approval of the RMP by the DBCA and the DEE.</p> <p><u>Reasonable</u></p> <p>Existing remnant bushland within the Perth metropolitan area of a suitable vegetation type to constitute a direct offset for the DFO Living Stream and Site 6 projects is not readily available. Most are held in private property, either highly degraded or too small to provide an efficient and secure long-term remnant. This Offset Strategy was developed to directly replace lost habitat while enhancing the existing conservation estate through improvement in habitat condition and extent.</p>
<p>Suitable offsets must have transparent governance arrangements, including being able to be readily measured, monitoring, audited and enforced.</p>	<p>Implementation of the offset will be in accordance with a formal agreement with the DBCA and a RMP, approved by the DEE, and which is able to be monitored, audited and enforced.</p>



6 Implementation Schedule

This offset will be one of the first Banksia Woodlands restoration projects since its listing as a threatened ecological community in September 2016. The project will be guided by the findings of the Banksia Woodlands Restoration Project undertaken in the Jandakot Regional Park by the DBCA between 2011 and 2015, and research conducted by the Botanic Gardens and Parks Authority at Kings Park (Perth).

Perth Airport will work closely with the DBCA to develop and implement the RMP to ensure that the project is consistent with DBCA land management.

Ecological requirements, such as undertaking seed collection in spring and seeding in March/April to provide seed viability, have also been taken into consideration when developing the offset management measures to be implemented to ensure the success of the restoration. Table 6-1 identifies the offset management measures to be implemented following approval of the Offset Strategy in accordance with Permit E2017-0128 and Permit E2018-0142.

Table 6-1 Offset Management Measures

Offset Management Measure	Action By	Week
Procurement of suitability qualified botanist/s	Perth Airport	1-11
Desktop and field reviews of potential restoration sites	Botanist	12-19
Site selection, analogue site identification, and plant identification and seed collection (need to occur in spring)	Botanist	20-39
Development of draft RMP with advice from the DBCA	Botanist, Perth Airport, DBCA	20-39
Land use contractual arrangements for selected offset site/s	Perth Airport, DBCA	30-39
Review and approval of RMP by the DBCA to ensure consistency with DBCA land management	DBCA	40-41
Tender and procurement of suitability experienced contractor/s to implement the RMP	Perth Airport	42-55
Implementation of the RMP with DBCA oversight (Note: seeding will need to commence March/April to ensure seed viability)	Contractor, DBCA	56 onwards

With respect to obtaining approval from the DEE for the offset site/s and the RMP, Perth Airport will:

- Not later than 35 weeks following the DEE approval of the Offset Strategy, submit the proposed restoration offset site/s, including nature, size and location, to the DEE for approval. This request will be accompanied by an in-principle agreement from the DBCA to the offset site/s,
- Not later than 42 weeks following the DEE approval of the Offset Strategy, submit a RMP to the DEE for approval, for the implementation of restoration activities at the DEE approved restoration offset site/s, and
- Implement restoration activities in accordance with the RMP approved by the DEE.



7 Conclusion

Development of the DFO Living Stream and Site 6 projects within the Perth Airport estate has residual impacts to Banksia Woodland TEC habitat. Perth Airport has prepared this Offset Strategy to describe the process for identifying suitable restoration offsets and developing and implementing an approved Restoration and Monitoring Plan to offset those impacts.

This Offset Strategy meets the principles of the Offsets Policy (SEWPaC, 2012a) and the Conservation Advice for Banksia Woodland TEC (Threatened Species Scientific Committee, 2016).



8 References

Focused Vision Consulting (2017). Significant flora and community assessment. Unpublished report prepared for Perth Airport.

Perth Airport (2017). Major Development Plan Minor Variation for the Direct Factory Outlet. Perth Airport Pty Ltd, Perth, WA, January 2017. Published at perthairport.com.au/majordevelopmentplans.

Perth Airport (2018). Major Development Plan for Site 6: Large Format Retail Outlet, Airport West Precinct. Perth Airport Pty Ltd, Perth, WA, December 2018. Published at perthairport.com.au/majordevelopmentplans.

SEWPaC (2012a). Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy (the Offsets Policy). Department of Sustainability, Environment, Water, Population and Communities (now Department of the Environment and Energy), Canberra, ACT.

SEWPaC (2012b). Offsets Assessment Guide. Department of Sustainability, Environment, Water, Population and Communities (now Department of the Environment and Energy), Canberra, ACT.

Society for Ecological Restoration (2018). National standards for the practice of ecological restoration in Australia, Edition 2.1.

Threatened Species Scientific Committee (2016). Approved Conservation Advice (incorporating listing advice) for the Banksia Woodlands of the Swan Coastal Plain ecological community. Threatened Species Scientific Committee, Canberra, ACT.