

Project Name									
Existing environment/ Impact	Mitigation			Significant Residual Impact	Offset Calculation Methodology				
	Avoid and minimise	Rehabilitation Type	Likely Rehab Success		Type	Risk	Likely offset success	Time Lag	Offset Quantification
Clearing of 0.05 ha of SCP 26a  • Development envelope has been modified to minimise clearing to as low as practicable. • Construction and access areas have been selected to coincide with proposed future urban development cells or roads either reserved by the MRS, or as detailed within approved and draft LSPs, to intentionally avoid direct impacts to vegetation which may have otherwise been able to be retained within future POS reservations. • A CEMP will be implemented to ensure clearing is restricted to the approved development envelope to avoid over-clearing and to minimise other indirect impacts to adjacent remnant vegetation.	Not applicable.	Not applicable.	<p>Extent Clearing of 0.05 ha of SCP 26a Quality 0.05 ha in Very Good Condition, however it has no connectivity to areas of the TEC outside of the development envelope. Conservation Significance High conservation significance as the vegetation comprises part of a TEC community listed as Endangered under the Biodiversity Conservation Act 2016. Land Tenure State, Freehold or Unallocated Crown Land (UCL) (not currently managed for conservation) Time Scale Permanent</p> <p>According to the agreed significance framework, residual impact is considered to be significant because cumulative impacts to this TEC is already at critical level.</p>	<p><b>Option 1:</b> land acquisition of Nowergup/Neerabup site. Site has no existing conservation tenure and will be transferred to conservation estate.</p>	<p><u>Land acquisition:</u> Site not available for purchase, land price does not represent value for money, another buyer purchases the land. <u>Management of site:</u> Low risk as land to be ceded to DBCA or other responsible authority.</p>	<p>Can the values be defined and measured? Yes - the PTA is in the process of procuring a consultant to conduct a site survey to assess environmental values should the site be acquired, focusing on the environmental values proposed to be offset, other vegetation values and FCTs.</p> <p>Operator experience/Evidence? It is proposed that the DBCA manage the land.</p> <p>What is the type of vegetation being revegetated? The site is known to contain SCP 26a habitat and potential Banksia woodlands of the SCP TEC. A site assessment will determine vegetation type and condition within the site.</p> <p>Is there evidence the environmental values can be re-created (evidence of demonstrated success)? A survey of the site will be conducted to assess the environmental values and extent of the SCP 26a habitat proposed to be conserved and managed. DBCA is responsible for biodiversity conservation in Western Australia and routinely carries out management and restoration activities within native flora and fauna habitats.</p>	<p><u>Acquisition of land:</u> No time lag - secures land upon agreement. Ecological benefit will be realised through classification to Parks and Recreation and management activities. Time lag is likely to range from 5 to 10 years.</p>	<p>To offset the loss of 0.05 ha of SCP 26a 0.2-0.3 ha of SCP 26a habitat will be acquired, protected and managed, calculated using the Commonwealth Offset calculator. The Nowergup/Neerabup site contains 7.3 ha of SCP 26a and vegetation condition is known to be in Very Good to Excellent condition.</p>	
				<p><b>Option 2:</b> land acquisition of 2 lots north of Lake Clifton. Land has no existing conservation tenure and will be transferred to conservation estate.</p>	<p><u>Land acquisition:</u> Site not available for purchase, land price does not represent value for money, another buyer purchases the land, unable to obtain both sites and amount of offset required. <u>Management of site:</u> Low risk as land to be ceded to DBCA or other responsible authority.</p>	<p>Can the values be defined and measured? Yes - the PTA is in the process of procuring a consultant to conduct a site survey to assess environmental values should the site be acquired, focusing on the environmental values proposed to be offset, other vegetation values and FCTs.</p> <p>Operator experience/Evidence? It is proposed that the DBCA manage the land.</p> <p>What is the type of vegetation being revegetated? The site is known to contain SCP 26a habitat. A site assessment will determine vegetation types and condition within the site.</p> <p>Is there evidence the environmental values can be re-created (evidence of demonstrated success)? A survey of the site will be conducted to assess the environmental values and extent of the SCP 26a habitat proposed to be conserved and managed. DBCA is responsible for biodiversity conservation in Western Australia and routinely carries out management and restoration activities within native flora and fauna habitats.</p>	<p><u>Acquisition of land:</u> No time lag - secures land upon agreement. Ecological benefit will be realised through classification to Parks and Recreation and management activities. Time lag is likely to range from 5 to 10 years.</p>	<p>To offset the loss of 0.05 ha of SCP 26a 0.2-0.3 ha of SCP 26a habitat will be acquired, protected and managed, calculated using the Commonwealth Offset calculator.</p>	
				<p><b>Option 3:</b> land acquisition of 2 lots east of Lake Clifton. Land has no existing conservation tenure and will be transferred to conservation estate.</p>	<p><u>Land acquisition:</u> Site not available for purchase, land price does not represent value for money, another buyer purchases the land, unable to obtain both sites and amount of offset required. <u>Management of site:</u> Low risk as land to be ceded to DBCA or other responsible authority.</p>	<p>Can the values be defined and measured? Yes - the PTA is in the process of procuring a consultant to conduct a site survey to assess environmental values should the site be acquired, focusing on the environmental values proposed to be offset, other vegetation values and FCTs.</p> <p>Operator experience/Evidence? It is proposed that the DBCA manage the land.</p> <p>What is the type of vegetation being revegetated? The site is known to contain SCP 26a habitat and potential Banksia woodlands of the SCP TEC. A site assessment will determine vegetation within the site.</p> <p>Is there evidence the environmental values can be re-created (evidence of demonstrated success)? A survey of the site will be conducted to assess the environmental values and extent of the SCP 26a habitat proposed to be conserved and managed. DBCA is responsible for biodiversity conservation in Western Australia and routinely carries out management and restoration activities within native flora and fauna habitats.</p>	<p><u>Acquisition of land:</u> No time lag - secures land upon agreement. Ecological benefit will be realised through classification to Parks and Recreation and management activities. Time lag is likely to range from 5 to 10 years.</p>	<p>To offset the loss of 0.05 ha of SCP 26a 0.2-0.3 ha of SCP 26a habitat will be acquired, protected and managed, calculated using the Commonwealth Offset calculator.</p>	

Clearing of 8.03 ha of the Commonwealth listed Banksia Woodlands of the Swan Coastal Plain TEC.

<p><b>Extent</b> Clearing of 8.03 ha of the Commonwealth listed Banksia Woodlands of the Swan Coastal Plain TEC.</p> <p><b>Quality</b> 8.03 ha of Banksia Woodland of SCP TEC comprising of 2.05 ha in Excellent condition, 4.09 ha in Very Good condition, 0.10 ha in Very Good-Good condition and 1.79 ha in Good condition.</p> <p><b>Conservation Significance</b> High conservation significance as Banksia Woodland of SCP TEC listed as Endangered under the EPBC Act.</p> <p><b>Land Tenure</b> State, Freehold or Unallocated Crown Land (UCL) (not currently managed for conservation)</p> <p><b>Time Scale</b> Permanent</p> <p>According to the agreed significance framework, residual impact is considered significant as the loss of up to 8.03 ha of Banksia Woodlands of the SCP TEC is likely to be viewed as a significant impact to the ecological community on the basis that the TCL project will contribute to the reduction in area of the ecological community.</p>	<p><b>Option 1:</b> Retrospective application of the WAPC acquired Mardella site and its reclassification as an A Class reserve (elevated from its Bush Forever status). Provision of funding to the DBCA for seven years of site management, with a focus on management of Banksia Woodlands of the SCP TEC.</p>	<p>There is no risk associated with acquisition as the site has already been acquired. Quality/condition of Banksia Woodlands of the SCP TEC habitat not maintained or improved or degrades over time despite rehabilitation and conservation measures. Insufficient area of Banksia TEC habitat meeting essential criteria able to be practicably acquired within required timeframe.</p>	<p><b>Can the values be defined and measured?</b> Yes - as an A Class Reserve, owned and managed by the DBCA, significant environmental surveys have been conducted onsite. These surveys will be provided to the PTA. Further, the PTA is in the process of procuring an additional site survey to assess environmental values, including Banksia TEC survey and assessment.</p> <p><b>Operator experience/Evidence?</b> The DBCA already owns and manages the land and will continue to do so.</p> <p><b>What is the type of vegetation being revegetated?</b> Black Cockatoo foraging habitat and potential Black Cockatoo breeding trees, Banksia Woodlands of the SCP TEC, known TEC habitat including <i>Caladenia huegelii</i> and <i>Drakea elastica</i>.</p> <p><b>Is there evidence the environmental values can be re-created (evidence of demonstrated success)?</b> The same environmental values in Excellent condition are known to exist within the proposed offset site. DBCA is responsible for biodiversity conservation in Western Australia and routinely carries out management and restoration activities within native flora and fauna habitats. The DBCA are responsible for managing the site following its classification as an A Class Reserve.</p>	<p>No time lag - Site acquisition and classification as a Class A nature reserve has already occurred. Ecological benefit has already occurred due to Class A classification. Funding for further management activities will prolong ecological benefit.</p>	<p>To offset 8.03 ha of Banksia Woodlands of the SCP TEC, acquisition and management of approximately 50 ha of Banksia TEC of the SCP as a minimum is required. This has been calculated using the DoEE offset calculator. The co-location of the Banksia Woodlands TEC with the Carnaby's Cockatoo offset and/or Bush Forever is cost effective. The acquisition and/or implementation of conservation measures to protect existing high quality areas of the TEC is appropriate and the Commonwealth offset calculator used to ensure the offset is proportionate to the impact.</p>
	<p><b>Option 2:</b> Acquisition of a privately owned Bush Forever site in Keysbrook for transfer from Rural Complimentary to Parks and Recreation and provision of funding to DBCA for 7 years of management, specific to the environmental values being offset.</p>	<p>There is no risk associated with acquisition as the site has already been acquired by the WPAC. Site environmental values are unknown and may not be applicable to the offset Banksia TEC impacts. Quality/condition of Banksia TEC not maintained or improved or degrades over time despite rehabilitation and conservation measures.</p>	<p><b>Can the values be defined and measured?</b> Yes - the PTA is in the process of procuring a site survey to assess environmental values, focusing on the environmental values and FCTs proposed to be offset.</p> <p><b>Operator experience/Evidence?</b> It is proposed that the DBCA manage the land, taking over from the WAPC.</p> <p><b>What is the type of vegetation being revegetated?</b> The site is likely to contain Black Cockatoo foraging habitat, potential Black Cockatoo breeding trees, Banksia Woodlands of the SCP TEC and wetland habitat. A site assessment will determine vegetation within the site.</p> <p><b>Is there evidence the environmental values can be re-created (evidence of demonstrated success)?</b> A survey of the site will be conducted to assess the environmental values and extent and condition of Banksia of SCP TEC habitat. DBCA is responsible for biodiversity conservation in Western Australia and routinely carries out management and restoration</p>	<p>No time lag - Site acquisition has already occurred. Reclassification from Rural Complimentary to Parks and Recreation is in the process of being undertaken. Ecological benefit has will be realised through classification to Parks and Recreation and management activities. Time lag is likely to range from 5 to 10 years.</p>	
	<p><b>Option 3:</b> Land acquisition of a site in Cataby. Land has no existing conservation tenure and will be transferred to conservation estate. Land is known to contain Banksia Woodlands of the SCP TEC.</p>	<p><b>Land acquisition:</b> No risk - land has already been acquired, however, the PTA is unsure how much will be allocated to the METRONET project.</p> <p><b>Management of site:</b> Low risk as land to be ceded to DBCA or other responsible authority.</p>	<p><b>Can the values be defined and measured?</b> Yes - A detailed site survey has been conducted to assess the type and extent of site environmental values. The PTA is in the process of procuring a consultant to conduct an additional site survey to assess the type and extent of environmental values focusing on the environmental values proposed to be offset including assessment of Banksia Woodlands of the SCP TEC habitat, vegetation values and FCTs if required.</p> <p><b>Operator experience/Evidence?</b> It is proposed that the DBCA manage the land.</p> <p><b>What is the type of vegetation being revegetated?</b> The site is known to contain low, moderate and high value Black Cockatoo foraging habitat and Banksia TEC.</p> <p><b>Is there evidence the environmental values can be re-created (evidence of demonstrated success)?</b> A survey of the site will be conducted to assess the environmental values and extent of Banksia Woodlands of the SCP habitat allocated to METRONET and proposed to be conserved and managed. DBCA is responsible for biodiversity conservation in Western Australia and routinely carries out management and restoration activities within native flora and fauna habitats.</p>	<p><b>Acquisition of land:</b> No time lag - as the site has already been acquired. Ecological benefit will be realised through classification to Parks and Recreation and management activities. Time lag is likely to range from 5 to 10 years.</p>	

<p>Clearing of 28.82 ha of Bush Forever site 289 (Ningana Bushland) including 18.07 ha of regionally significant bushland.</p>				<p><b>Extent</b> 28.82 ha of Bush Forever Site 289 will be intersected by the development envelope, including 18.07 ha of regionally significant bushland.</p> <p><b>Quality</b> More than 60% of the bushland is in Very Good or better condition.</p> <p><b>Conservation Significance</b> Regionally significant bushland as the vegetation comprises part of Bush Forever site 289</p> <p><b>Land Tenure</b> State, Freehold or Unallocated Crown Land (UCL) (not currently managed for conservation)</p> <p><b>Time Scale</b> Permanent</p> <p>According to the agreed significance framework, residual impact is considered significant due to the general high conservation significance of the vegetation which supports flora and fauna, TECs/PECs, Carnaby's Cockatoo, significant landform and its function as an ecological linkage.</p>	<p><b>Option 1:</b> on-ground conservation management in Ningana Bushland (Bush Forever Site 289) to improve the condition and quality of degraded vegetation within the un-impacted areas.</p>	<p>DBCA cannot secure funding shortfall to manage entire Ningana site. Condition of degraded vegetation not improved, or area of improved vegetation condition does not or is not likely to meet minimum area of 23.48 ha, within 7 years despite conservation measures.</p>	<p><b>Can the values be defined and measured?</b> Yes – vegetation values can be measured through vegetation condition inspections from on ground works during:</p> <ul style="list-style-type: none"> <li>• Rubbish removal</li> <li>• Fencing installation</li> <li>• Fire prevention and control works</li> <li>• Feral animal control</li> <li>• Weed management</li> <li>• Signage installation.</li> </ul> <p><b>Operator experience/Evidence?</b> DBCA will manage the land within their ownership</p> <p><b>What is the type of vegetation being revegetated?</b> Vegetation types/species associated with Bush Forever Site 289</p> <p><b>Is there evidence the environmental values can be re-created (evidence of demonstrated success)?</b> DBCA is responsible for biodiversity conservation in Western Australia and routinely carries out management and restoration activities.</p>	<p>Within seven years to achieve no net loss.</p>	<p>The application of conservation measures to an area of existing Bush Forever site that does not have existing active conservation management is cost effective and is relevant to the impact as it involves the site that is directly affected by the YRE Part 2 Project. The area of offset required is 28.48 ha, which is proportionate to the impact as calculated using the guidance in SPP 2.8 - on-ground conservation management of approximately 69.59 ha of Degraded to Good vegetation e.g. rehabilitation/revegetation (calculated independent of Commonwealth calculator).</p>
<p>Loss of 56.31 ha of Carnaby's Cockatoo habitat and 45 potential Black Cockatoo breeding trees</p>				<p><b>Extent</b> Loss of 56.31 ha of Carnaby's Cockatoo habitat and 45 potential breeding trees.</p> <p><b>Quality</b> 22.56 ha of high value foraging habitat, 33.75 ha of medium value foraging habitat and 2.13 ha of breeding habitat.</p> <p><b>Conservation Significance</b> High conservation significance as Carnaby's Black Cockatoo is listed as Endangered under the <i>Biodiversity Conservation Act 2016</i>.</p> <p><b>Land Tenure</b> State, Freehold or Unallocated Crown Land (UCL) (not currently managed for conservation)</p> <p><b>Time Scale</b> Permanent</p> <p>According to the agreed significance framework, residual impact is considered significant when considering cumulative impacts (in this instance, proposed adjacent industrial and urban development).</p>	<p><b>Option 1:</b> Retrospective application of the WAPC acquired Mardella site and its reclassification as an A Class reserve (elevated from its Bush Forever status). Provision of funding to the DBCA for seven years of site management, with a focus on management of Black Cockatoo habitat and potential breeding trees.</p>	<p><b>Land acquisition:</b> Site not available for purchase, land price does not represent value for money, another buyer purchases the land.</p> <p><b>Management of site:</b> Low risk as land to be ceded to DBCA or other responsible authority.</p>	<p><b>Can the values be defined and measured?</b> Yes - the PTA is in the process of procuring a consultant to conduct a site survey to assess environmental values should the site be acquired, focusing on the environmental values proposed to be offset, other vegetation values and FCTs.</p> <p><b>Operator experience/Evidence?</b> It is proposed that the DBCA manage the land.</p> <p><b>What is the type of vegetation being revegetated?</b> A site assessment will determine vegetation types and condition within the site.</p> <p><b>Is there evidence the environmental values can be re-created (evidence of demonstrated success)?</b> DBCA is responsible for biodiversity conservation in Western Australia and routinely carries out management and restoration activities within native flora and fauna habitats.</p>	<p><b>Acquisition of land:</b> No time lag - secures land upon agreement. Ecological benefit will be realised through classification to Parks and Recreation and management activities. Time lag is likely to range from 5 to 10 years.</p>	<p>The application of conservation measures to an area of existing Bush Forever site that does not have existing active conservation management is cost effective and change from Rural Complimentary to Parks and Recreation zoning reduces the risk to the land and promotes long-term conservation. A site that contains the same environmental values will be selected to ensure the offset is relevant to the impact. The total area of the offset involved is proportionate to the impact as calculated using the guidance in SPP 2.8</p>
				<p><b>Extent</b> Loss of 56.31 ha of Carnaby's Cockatoo habitat and 45 potential breeding trees.</p> <p><b>Quality</b> 22.56 ha of high value foraging habitat, 33.75 ha of medium value foraging habitat and 2.13 ha of breeding habitat.</p> <p><b>Conservation Significance</b> High conservation significance as Carnaby's Black Cockatoo is listed as Endangered under the <i>Biodiversity Conservation Act 2016</i>.</p> <p><b>Land Tenure</b> State, Freehold or Unallocated Crown Land (UCL) (not currently managed for conservation)</p> <p><b>Time Scale</b> Permanent</p> <p>According to the agreed significance framework, residual impact is considered significant when considering cumulative impacts (in this instance, proposed adjacent industrial and urban development).</p>	<p><b>Option 1:</b> Retrospective application of the WAPC acquired Mardella site and its reclassification as an A Class reserve (elevated from its Bush Forever status). Provision of funding to the DBCA for seven years of site management, with a focus on management of Black Cockatoo habitat and potential breeding trees.</p>	<p>There is no risk associated with acquisition as the site has already been acquired. Quality/condition of Bush Forever habitat not maintained or improved or degrades over time despite rehabilitation and conservation measures. Insufficient area of Black Cockatoo habitat meeting essential criteria able to be practicably acquired within required timeframe.</p>	<p><b>Can the values be defined and measured?</b> Yes - as an A Class Reserve, owned and managed by the DBCA, significant environmental surveys have been conducted onsite. These surveys will be provided to the PTA. Further, the PTA is in the process of procuring an additional site survey to assess environmental values, including a Black Cockatoo survey and assessment.</p> <p><b>Operator experience/Evidence?</b> The DBCA already owns and manages the land and will continue to do so.</p> <p><b>What is the type of vegetation being revegetated?</b> Black Cockatoo foraging habitat and potential Black Cockatoo breeding trees, Banksia Woodlands of the SCP TEC, known TEC habitat including <i>Caladenia huegelii</i> and <i>Drakea elastica</i>.</p> <p><b>Is there evidence the environmental values can be re-created (evidence of demonstrated success)?</b> The same environmental values in Excellent condition are known to exist within the proposed offset site. DBCA is responsible for biodiversity conservation in Western Australia and routinely carries out management and restoration activities within native flora and fauna habitats.</p>	<p>No time lag - Site acquisition and classification as a Class A nature reserve has already occurred. Ecological benefit has already occurred due to Class A classification. Funding for further management activities will prolong ecological benefit.</p>	<p>To offset 56.31 ha of Carnaby's Black Cockatoo habitat, acquisition and management of approximately 340 ha of land as minimum is required. This has been calculated using the DoEE offset calculator. To offset the clearing of 45 potential Black Cockatoo breeding trees, acquisition and conservation of 135 potential breeding trees is required. This has been calculated at a 3:1 ratio. The co-location of the Banksia Woodlands TEC with the Carnaby's Cockatoo offset and/or Bush Forever offset is cost effective. The acquisition and/or implementation of conservation measures to protect existing high quality areas of the TEC is appropriate and the Commonwealth offset calculator used to ensure the offset is proportionate to the</p>

