


Application for a



Section 91 Licence

under the *Threatened Species Conservation Act 1995* to harm or pick a threatened species, population or ecological community* or damage habitat.

1. Applicant's Name [^] : (if additional persons require authorisation by this licence, please attach details of names and addresses)	Ian Drinnan (Manager/Principal Environmental Scientist), and Beth Noel (Environmental Scientist)	
2. Australian Business Number (ABN):	52 018 204 808	
3. Organisation name and position of applicant [^] : (if applicable)	Sutherland Shire Council	
4. Postal address [^] :	Locked Bag 17 Sutherland NSW 1499	
5. Location of the action (including grid reference and local government area and delineated on a map).	<p>The action will take place at the Kareela flying-fox camp, a 1.9 ha remnant of vegetation located west of the Princes Highway at Bates Drive, Kareela in the Sutherland Shire Local Government Area (Figure 1). Map grid reference 56 323196E 6233606N (GDA 1994). Grey-headed flying foxes occupy trees in a shallow gully containing a minor creek line.</p> <p>The flying-fox camp is located within Lot 7013 DP1059414. The land is owned by the NSW State Government under the care and control of Sutherland Shire Council. The bushland is zoned on the Sutherland Shire Local Environment Plan 2006 as Zone 14 Public Open Space (Bushland).</p>	

* A threatened species, population or ecological community means a species, population or ecological community identified in Schedule 1, 1A or Schedule 2 of the *Threatened Species Conservation Act 1995*.

[^]The personal details of all Section 91 licences will be displayed in the register of Section 91 licences required under Section 104 of the *Threatened Species Conservation Act 1995*. See notes.

<p>6. Full description of the action and its purpose (e.g. environmental assessment, development, etc.)</p>	<p>The purpose of the action is to remove 60% of vegetation from the reserve area and increase the buffer between schools, residents and the up to 20,000 Grey-headed Flying-foxes from the current 10m to approximately 30m. This will eliminate the risks the special needs children are experiencing adjacent the camp and remove the significant conflict between Council, residential properties, schools and the general community.</p> <p>The community have been plagued by impacts such as:</p> <ul style="list-style-type: none"> • Risks to human health, particularly vulnerable children with learning and intellectual disabilities, from the presence of flying-foxes which can carry Lyssavirus. Disabled children at the schools commonly put objects in their mouth and parts of dead flying-foxes have been found in play yards; • Noise from 4am lasting the entire day until sunset, disrupting learning within these schools; • Odour especially following rain or high levels of dew; • Faecal drop in pools, on children's play equipment within the special schools, buildings, cars, paths, pergolas and outdoor areas; • Invasion of noxious and environmental weeds in a reserve that was once native bushland; • Loss of native tree canopy as weeds have invaded and trees have been destroyed by flying-fox activity; • Increasing flying-fox numbers at Kareela have pushed the animals closer to schools and residential properties so that insufficient distance between animals and people exist.
<p>7. Details of the area to be affected by the action (in hectares).</p>	<p>Sixty percent of the reserve area will be cleared of vegetation greater than 2m in height or likely to achieve 2m in height. This comprises 1.14 ha of vegetation consisting mostly of weeds with some scattered native species. Species to be removed include:</p> <ul style="list-style-type: none"> • Small Leaved Privet (<i>Ligustrum sinense</i>); • Large Leaf Privet (<i>Ligustrum lucidum</i>); • Coral Tree (<i>Erythrina</i>); • Palm (varied exotic species); • Pittosporum (<i>Pittosporum undulatum</i> and <i>Pittosporum revolutum</i>); • Willows (<i>Salix babylonica</i>); • Camphor Laurel (<i>Cinnamomum camphora</i>); • Brown Stringy Bark (<i>Eucalyptus capitellata</i>); • Blueberry Ash (<i>Elaeocarpus reticulatus</i>); • Cheese Tree (<i>Glochidion ferdinandi</i>); • Bleeding Heart (<i>Omalanthus populifolius</i>); • Blackbutt (<i>Eucalyptus pilularis</i>); • Lillipilli (<i>Acmena smithii</i>); • She Oak (<i>Allocasuarina littoralis</i>); • Red Bloodwood (<i>Corymbia gummifera</i>); • Wattle Coast Myall (<i>Acacia binnervia</i>); • Broad-leaved Paperbark (<i>Melaleuca quinquenervia</i>); • Crimson Bottlebrush (<i>Callistemon citrinus</i>) <p>The area of compensatory planting located south of the camp which was planted to compensate for previous vegetation clearing along the</p>

	northern boundary will remain and Council will ensure that it is maintained. Council propose that further compensation for removal of 1.14 ha of vegetation from the reserve will be in the form of planting in other Council reserves and street tree planting to the equivalent of at least 2.5 ha of bushland (a minimum 2:1 replacement ratio) and trees compensated at a rate of 4:1 in accordance with Council's adopted Urban Tree and Bushland Policy.
8. Duration and timing of the action (including staging, if any).	The action will take place during winter 2014, after the population at the camp reaches minimum annual levels. The precise timing of the action will be determined by the timing of the autumn migration, but it will commence as soon after that migration as practical and prior to 31 August 2014. Tree removal will be conducted after the camp fly out in the evening. To minimise the impact on the residents the vegetation removal will be undertaken from approximately 5:30pm to 9pm over an estimated 3 to 5 week period (or more if required).
9. Is the action to occur on land declared as critical habitat*? (tick appropriate box)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

10. Threatened species, populations or ecological communities to be harmed or picked.	<u>Scientific name</u>	<u>Common name</u> (if known)	<u>Conservation status</u> (i.e. critically endangered, endangered or vulnerable)	<u>Details of no. of individual animals, or proportion and type of plant material</u> (e.g. fertile branchlets for herbarium specimens or whole plants or plant parts)
	<i>Pteropus poliocephalus</i>	Grey-headed flying fox	Vulnerable	The action will take place when the camp population reaches its annual winter low. It is expected that between 1,000 ~7000 will be present, on the basis of population estimates during previous winters.

* Critical habitat means habitat declared as critical habitat under Part 3 of the *Threatened Species Conservation Act 1995*.

<p>11. Species impact: (please tick appropriate box)</p> <p>a) For action proposed on land declared as critical habitat;</p> <p>or</p> <p>b) For action proposed on land <u>not</u> declared as critical habitat.</p>	<p>an SIS is attached <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Items 12 to 25 have been addressed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p><i>N.B: Provision of a species impact statement is a statutory requirement of a licence application if the action is proposed on critical habitat. The provision of information addressing items 12 to 17 is a statutory requirement of a licence application if the action proposed is <u>not</u> on land that is critical habitat. Information addressing any of the questions below must be attached to the application.</i></p>	
<p>12. Describe the type and condition of habitats in and adjacent to the land to be affected by the action.</p>	<p>The vegetation in the north east part of the site is classified as Sydney Coastal Dry Sclerophyll Forests (SMCMA mapping V2 2013), this is the area surrounding Council's depot on Bates Drive, Eucalyptus pilularis and Melaleuca quinquenervia are the majority of canopy species present in this location. The south west part of the site is classified as >90% exotic species (SMCMA mapping V2 2013).</p> <p>Native species in the canopy include <i>Eucalyptus capitellata</i>, <i>Allocasuarina littoralis</i>, <i>Eucalyptus pilularis</i> and <i>Glochidion ferdinandi</i>, <i>Melaleuca quinquenervia</i>. There is a significant presence of exotic plants especially in the south west part of the reserve. Canopy species Small-leaved Privet (<i>Ligustrum sinense</i>), Large-leaved Privet (<i>Ligustrum lucidum</i>), Coral Tree (<i>Erythrina</i>) and Camphor Laurel (<i>Cinnamomum camphora</i>).</p> <p>The habitat is heavily used by up to 15,000 Grey-headed Flying Foxes, with temporary peaks of up to ~20,000 Grey-headed Flying-foxes with the majority of vegetation occupied during these temporary peak periods. Figure 2 shows the core habitat occupied for the majority of the peak summer/autumn period. Dead, dying and living trees, native and exotic species are all used as habitat for roosting within the boundary of the reserve.</p> <p>The remnant bushland is surrounded by a mixture of residential, educational and recreational land (Figure 1). The grounds of the Bates Drive Public School, Sylvanvale Disability Services Facility and ASPECT Autism join the camp to the north. These facilities cater for children and young adults with physical and intellectual disabilities. Residential houses join the remnant to the west, with a varied buffer ranging from 2m to 18m between residential properties and the camp. This area consists of cleared, mown land separating the camp vegetation from the residential boundaries. Training and playing fields of the Sutherland Shire Soccer Football Club and the Harrie Denning Soccer Centre bound the camp to the south, the Kareela Golf Course is located across Bates Dr to the north and north east.</p>
<p>13. Provide details of any</p>	

<p>known records of a threatened species in the same or similar known habitats in the locality (include reference sources).</p>	<p><u>Data source:</u> Threatened species database maintained by Sutherland Shire Council. The database incorporates records from the DECCW Wildlife Atlas (dated Oct 2011). An area of 2 km radius around the Kareela camp was searched. Northern parts of Royal National Park and significant bushland in the Woronora Valley occur at greater distances from the site. The search was limited to a 2 km radius in order to promote records from urban bushland habitats similar to the Kareela remnant. The following threatened species have been recorded in this area: Superb Fruit-Dove, Major Mitchell's Cockatoo, Gang-gang Cockatoo, Purple-crowned Lorikeet, Eastern Bentwing-bat, Powerful Owl and Grey-headed Flying-fox.</p>																								
<p>14. Provide details of any known or potential habitat for a threatened species on the land to be affected by the action (include reference sources).</p>	<table border="1"> <thead> <tr> <th>Species</th> <th>status</th> <th>Habitat</th> </tr> </thead> <tbody> <tr> <td>Superb Fruit-Dove</td> <td>V</td> <td>requires rainforest or similar closed forest; none affected by the action http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10709</td> </tr> <tr> <td>Major Mitchell's Cockatoo</td> <td>V</td> <td>sighting significantly outside range; considered an aviary escape</td> </tr> <tr> <td>Gang-gang Cockatoo</td> <td>V</td> <td>requires large tree hollows for nesting & breeding; none affected by the action http://www.environment.nsw.gov.au/determinations/GanggangCockatooVulSpListing</td> </tr> <tr> <td>Purple-crowned Lorikeet</td> <td>V</td> <td>sighting substantially outside range; considered an aviary escape</td> </tr> <tr> <td>Eastern Bentwing-bat</td> <td>V</td> <td>requires caves or other structures for roosting & breeding; none affected http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10534</td> </tr> <tr> <td>Grey-headed flying fox</td> <td>V</td> <td>roosting habitat affected</td> </tr> <tr> <td>Powerful Owl</td> <td>V</td> <td>possible feeding habitat</td> </tr> </tbody> </table> <p>The balance of this application refers to Grey-headed flying foxes.</p>	Species	status	Habitat	Superb Fruit-Dove	V	requires rainforest or similar closed forest; none affected by the action http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10709	Major Mitchell's Cockatoo	V	sighting significantly outside range; considered an aviary escape	Gang-gang Cockatoo	V	requires large tree hollows for nesting & breeding; none affected by the action http://www.environment.nsw.gov.au/determinations/GanggangCockatooVulSpListing	Purple-crowned Lorikeet	V	sighting substantially outside range; considered an aviary escape	Eastern Bentwing-bat	V	requires caves or other structures for roosting & breeding; none affected http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10534	Grey-headed flying fox	V	roosting habitat affected	Powerful Owl	V	possible feeding habitat
Species	status	Habitat																							
Superb Fruit-Dove	V	requires rainforest or similar closed forest; none affected by the action http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10709																							
Major Mitchell's Cockatoo	V	sighting significantly outside range; considered an aviary escape																							
Gang-gang Cockatoo	V	requires large tree hollows for nesting & breeding; none affected by the action http://www.environment.nsw.gov.au/determinations/GanggangCockatooVulSpListing																							
Purple-crowned Lorikeet	V	sighting substantially outside range; considered an aviary escape																							
Eastern Bentwing-bat	V	requires caves or other structures for roosting & breeding; none affected http://www.threatenedspecies.environment.nsw.gov.au/tsprofile/profile.aspx?id=10534																							
Grey-headed flying fox	V	roosting habitat affected																							
Powerful Owl	V	possible feeding habitat																							
<p>15. Provide details of the amount of such habitat to be affected by the action proposed in relation to the known distribution of the species and its habitat in the locality .</p>	<p>The Grey-headed flying fox has an extensive range which includes coastal lowlands, coastal ranges and the coastal fall of the escarpment from Mackay, Qld to Geelong, Vic; and tablelands and western slopes in SEQ and northern NSW. Over 270 camps have been identified in the range (Eby 2007 and unpublished data). Three camps, Kareela, Kurnell (previously occupied but not currently) and Menai (temporary) are found in the Sutherland Shire. The Kurnell and Menai camps remain in good condition and would provide suitable alternative habitat for any displaced Kareela Grey-headed Flying Foxes. Other suitable habitat for the Grey-headed flying fox exists in urban gullies and gullies in adjacent reserves (including the Royal and Georges River National Parks) throughout the Sutherland Shire. Suitable alternative habitat is identified within the Kareela Flying Fox Camp Plan of Management.</p> <p>The action will remove 0.4 ha (21%) of core habitat and 1.14 ha of vegetation at Kareela which could be used as GHFF habitat.</p>																								
<p>16. Provide an assessment of the likely nature and intensity of the effect of</p>	<p>The affect on the GHFF would be to remove 21% of their core habitat. This would have some impact on the camp but it would be</p>																								

<p>the action on the lifecycle and habitat of the species.</p>	<p>lessened by the fact that the numbers over winter will have significantly declined giving the animals time to find other roosting accommodation.</p> <p>None of the vegetation removed would provide significant food sources for the GHFF.</p>
<p>17. Provide details of possible measures to avoid or ameliorate the effect of the action.</p>	<p>Measures taken to avoid or ameliorate impact from the action include:</p> <ol style="list-style-type: none"> 1. scheduled to be undertaken at minimum population size; 2. scheduled to be undertaken outside critical phases of reproduction; 3. staged program over 3 to 5 weeks to allow animals to adapt to disruption; 4. compensatory planting 5. conducted at night to avoid direct disturbance of animals
<p><i>N.B: The Director-General must determine whether the action proposed is likely to significantly affect threatened species, populations or ecological communities, or their habitats. To enable this assessment the Applicant is required to address items 18 to 24. Any additional information referred to in addressing these items must be attached to the application.</i></p>	
<p>18. In the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.</p>	<p>While the Kareela camp contains reproductive animals, the timing of the action, during winter, is outside critical phases in the annual reproductive cycle of the Grey-headed flying fox. The previous season's young are weaned, mating is complete and the females are in the early stages of pregnancy.</p> <p>The action will take place after the autumn migration has occurred and a minimum population size is reached. Observations in previous winters indicate that 1000 ~7000 animals will be present in the Kareela camp at this time.</p> <p>Similar works (though removing less vegetation) utilising a similar methodology were undertaken in 2010 without significantly impacting on flying fox numbers within the camp.</p> <p>While the works are not proposing to disperse the Kareela camp, the vegetation clearing may result in the displacement of numerous Grey-headed flying fox from the camp due to the reduction in available habitat. Other actions undertaken in the Sydney region which have resulted in the dispersal or displacement of Grey-headed flying fox have not resulted in localised extinction (Kurnell, Sydney Royal Botanical Gardens). Displaced individuals have established in new camps (eg. Centennial Park) or joined existing camps. Recent studies of dispersals by Roberts & Eby (2013) show that in the majority of instances (16 out of 17 cases) dispersal did not reduce the number of flying foxes in a local area.</p> <p>On this basis it is considered that while the vegetation buffer clearing works may result in the displacement of some individuals from the camp, this will not result in a significant on the Grey-headed flying fox.</p>

<p>19. In the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction.</p>	<p>n/a</p>
<p>20. In the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:</p> <p>(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or</p>	<p>n/a</p>
<p>21. In relation to the habitat of a threatened species, population or ecological community:</p> <p>(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed, and</p> <p>(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and</p> <p>(iii) the importance of the habitat to be removed, modified, fragmented or isolated</p>	<p>(i). The action will remove a total of 1.14 hectares of vegetation from the 1.9 hectare remnant. Of this 1.9ha, the core area occupied by flying foxes is 1.2 ha. Only 0.4 ha or 21% of this core habitat will be removed with 79% retained.</p> <p>(ii) A total of 1.14 ha will be removed. The removal is designed to ensure the maximum distance from neighbouring properties whilst retaining the best quality core habitat.</p> <ol style="list-style-type: none"> 1. Grey-headed flying foxes are highly mobile animals. 2. The action will be conducted at an appropriate time of the year to reduce the impact on the animals. 3. The action will be undertaken over 3 to 5 weeks (or longer if required) to ensure animals can relocate. <p>(iii) It is unlikely that the removal of habitat will impact the long-term survival of the species</p> <ol style="list-style-type: none"> 1. The Sutherland Shire and Sydney as a whole have many

<p>to the long-term survival of the species, population or ecological community in the locality.</p>	<p>suitable areas that can be used as GHFF habitat.</p> <p>2. Compensatory planting in the Sutherland Shire will enhance roosting options away from vulnerable children in the long-term.</p>
<p>22. Whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly).</p>	<p>No critical habitat has been declared for GHFF</p>
<p>23. Whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan.</p>	<p>The action is not consistent with the objectives of the Draft National Recovery Plan for the Grey-headed Flying-fox (DECC NSW 2008). However this removal plan has been designed in order to reduce conflict, increase the distance between the camp and neighbouring residents and vulnerable children, whilst retaining as much core habitat as possible.</p>
<p>24. Whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.</p>	<p>The action is pertinent to three key threatening processes listed on the TSC Act. Each of them is exposed to incremental as well as broad-scale influences and this action will contribute a minor increase in the impact of the processes as described below.</p> <ol style="list-style-type: none"> 1. <u>Clearing of native vegetation</u>: 60% of the area of the remnant vegetation will be removed in this action. It should be noted that compensatory plantings will substantially reduce the net loss of native vegetation in the long term across the Sutherland Shire LGA and that the majority of core habitat is being maintained. 2. <u>Loss of hollow-bearing trees</u>: None of the trees are known to have hollows. None of the trees contain medium or large hollows visible using binoculars. The number of trees with small hollows not visible with binoculars is not known. The presence and size of hollows in eucalypts increases with the age and dbh of trees. (http://www.environment.nsw.gov.au/determinations/lossofhollowtreesktp.htm) Most of the eucalypts to be removed are <400mm dbh. It is likely that some will contain small hollows of sufficient dimension to be used by solitary, tree-roosting microchiroptera. 3. <u>Removal of dead wood and dead trees</u>: there is a significant proportion of dead and dying trees within the camp. The activity of the flying-foxes has resulted in the dead trees being unsuitable as habitat for other native species due to their occupation and their gradual destruction of the dead trees by heavy numbers roosting in them.

Important information for the applicant

Processing times and fees

The *Threatened Species Conservation Act 1995* provides that the Director-General must make a decision on the licence application within 120 days where a species impact statement (SIS) has been received. No timeframes have been set for those applications which do not require a SIS.

The Director-General will assess your application as soon as possible. You can assist this process by providing clear and concise information in your application.

Applicants may be charged a processing fee. The Director-General is required to advise prospective applicants of the maximum fee payable before the licence application is lodged. Therefore, prospective applicants should contact the Department of Environment, Climate Change and Water NSW (DECCW) prior to submitting a licence application .

A \$30 licence application fee must accompany a licence application.

Protected fauna and protected native plants*

Licensing provisions for protected fauna and protected native plants are contained within the *National Parks and Wildlife Act 1974*. However, a Section 91 Licence may be extended to include protected fauna and protected native plants when these will be affected by the action.

If you are applying for a licence to cover both threatened and protected species please provide the information requested in Item 10 *as well as* a list of protected species and details of the number of individuals animals or proportion and type of plant material which are likely to be harmed or picked.

Request for additional information

The Director-General may, after receiving the application, request additional information necessary for the determination of the licence application.

Species impact statement

Where the application is not accompanied by a SIS, the Director-General may decide, following an initial assessment of your application, that the action proposed is likely to have a significant effect on threatened species, populations or ecological communities, or their habitats. In such cases, the *Threatened Species Conservation Act 1995* requires that the applicant submit a SIS. Following initial review of the application, the Director-General will advise the applicant of the need to prepare a SIS.

Director-General's requirements for a SIS

Prior to the preparation of a SIS, a request for Director-General's requirements must be forwarded to the relevant DECCW Office. The SIS must be prepared in accordance with section 109 and 110 of the TSC Act and must comply with any requirements notified by the Director-General of DECCW

Disclosure of Personal Information in the Public Register of s91 Licences

The Public Register provides a list of licence applications and licences granted. A person about whom personal information is contained in a public register may request that the information is removed or not placed on the register as publicly available.

Copies of all applications and licences issued under section 91 and certificates issued under section 95 of the Act are available on the DECCW website at

www.environment.nsw.gov.au/threatenedspecies/S91TSCaRegisterByDate.htm

or in hardcopy form from The Librarian, DECC, 59 Goulburn St, Sydney.

Certificates

If the Director-General decides, following an assessment of your application, that the proposed action is not likely to significantly affect threatened species, populations or ecological communities,

* Protected fauna means fauna of a species not named in Schedule 11 of the *National Parks and Wildlife Act 1974*.

Protected native plant means a native plant of a species named in Schedule 13 of the *National Parks and Wildlife Service 1974*.

or their habitats, a Section 91 Licence is not required and the Director-General must, as soon as practicable after making the determination, issue the applicant with a certificate to that effect.

N.B: An action that is not required to be licensed under the Threatened Species Conservation Act 1995, may require licensing under the National Parks and Wildlife Act 1974, if it is likely to affect protected fauna or protected native plants.

I confirm that the information contained in this application is correct. I hereby apply for a licence under the provisions of Section 91 of the *Threatened Species Conservation Act 1995*.

Applicant's name

(Please print)

Ian Drinnan

Applicant's Position &

Organisation *(if relevant)*

(Please print)

Manager/Principal

Environmental Scientist

Sutherland Shire

Council

Applicant's signature



Date

26 May 2014

For more information or to lodge this form, contact the nearest branch of DECCW's Environment Protection and Regulation Group:

Metropolitan Branch

P: 02 9995 6851

F: 02 9995 6900

PO Box 668

Parramatta

NSW 2124

Metropolitan Branch

P: 02 4225 1455

F: 02 4225 3545

PO Box 5436

Wollongong

NSW 2515

North East Branch

P: 02 6640 2500

F: 02 6642 7743

PO Box 498

Grafton

NSW 2460

North East Branch

P: 02 4908 6800

F: 02 4908 6810

PO Box 488G,

Newcastle

NSW 2300

North West Branch

P: 02 6883 5330

F: 02 6884 9382

PO Box 2111

Dubbo

NSW 2830

South Branch

South East Region

P: 02 6122 3100

F: 02 6299 3525

PO Box 622

Queanbeyan

NSW 2620

South Branch

South West Region

P: 02 6022 0600

PO Box 544

Albury

NSW 2640

Department of Environment, Climate Change and Water (NSW)

PO Box A290, Sydney South NSW 1232

Phone: 131 555 (Environment Line) Fax: 9995 5999

Email: info@environment.nsw.gov.au



Figure 1. An aerial view of the remnant vegetation that contains the Kareela flying fox camp (bounded by red line) and the immediate surrounds comprising 1.9 ha. Schools to the north, residential properties to the west, playing fields to the south, Golf Course to the north east.



Figure 2. The location of the 1.2 ha area of core habitat (green) for the flying-fox camp within the vegetation reserve. The black hatched area shows the 0.76 ha area of habitat to be retained following 60% (1.14 ha) removal.



Figure 3. The boundary of the area of compensatory planting currently at the Kareela flying fox camp (blue).