

*Threatened Species and Habitat*

The mature native trees and shrubs at the site are currently providing habitat for the threatened mammal species Squirrel Glider, Brush-tailed Phascogale, Grey-headed Flying-fox and microchiropteran bats as well as other non-threatened fauna species such as the Brush-tailed Possum (*Trichosurus vulpecula*), Sugar Glider and Ring-tailed Possum (*Pseudocheirus peregrinus*).

Twelve trees within the site were found to contain hollows of varying sizes which may be providing sheltering habitat for the Squirrel Glider, Sugar Glider and the Brush-tailed Phascogale, as well as habitat for microchiropteran bats and small parrot species. Given the small size of the hollows, it is unlikely that they provide habitat for large birds or large arboreal mammals.

The entire site appears to be utilised by gliders, with the majority of nocturnal activity occurring in the north eastern portion of the site. This area (see *Figure 4.1*) had a denser canopy cover than the rest of the site and this may be the reason for the higher levels of activity. Within this mapped area, the highest amount of activity occurred in the northeast and east.

The occurrence of Squirrel Glider den sites within the site was not able to be ascertained during the April 2006 field investigations and it is unknown whether this species or the Brush-tailed Phascogale are resident on the site. Given the number of gliders recorded during field investigations, it is possible that there may be a den site present.

Home ranges of the Squirrel Glider have been estimated at between 0.65 and 8.55 ha, with the home range of a family group varying according to habitat quality and availability of resources (NPWS 1999a). The site is therefore likely to represent a portion of a home range for the Squirrel Glider given the limited resources available on the site. The Brush-tailed Phascogale has a much larger home range, with the females inhabiting territories of approximately 20 to 60 ha, while the males maintain territories of up to 100 ha. The territory of a female is exclusive. However, the territory of a male may overlap with other females and males (NPWS 1999b). Given the large size of home ranges for this species it is likely that the site represents a small part of a home range for the individuals captured there.

The site provides potential foraging habitat for the Grey-headed Flying-fox but is not a known camp site for this species. Therefore the proposal is considered unlikely to displace any Grey-headed Flying-foxes.

The Fishing Bat generally roosts in groups of 10 – 15, close to water in caves, mine shafts, hollow-bearing trees, stormwater channels, buildings, under bridges and in dense foliage (DEC 2005a). The proposal will remove potential habitat for this species in the form of hollow-bearing trees. However it is unknown whether the species currently roosts on site.

The Eastern Freetail bat occurs in dry sclerophyll forest and woodland east of the Great Dividing Range. It roosts mainly in tree hollows but will also roost under bark or in man-made structures (DEC 2005b). The proposal will remove potential roost sites for this species in the form of mature trees and hollows. However it is unknown whether the species currently roosts on site.

Little Bent-wing Bats roost in caves, tunnels and sometimes tree hollows during the day, and at night forage for small insects beneath the canopy of densely vegetated habitats. The proposal will remove potential roost sites for this species. However, it is unknown whether the species currently roosts on site.

Caves are the primary roosting habitat for the Eastern Bent-wing Bat, but the species also uses derelict mines, storm-water tunnels, buildings and other man-made structures. It is unknown whether the species currently roosts on site.

#### *Fauna Corridor*

There is some connectivity of the trees within the site to vegetation to the north and south, which may provide for some local movement and dispersal from nearby Hat Head National Park. However, it is unlikely that the site provides for major movement and dispersal of fauna in the locality. The site has not been identified as a regional or subregional corridor (Canri Website),

#### *Vegetation Communities*

A total of four vegetation communities were identified on site. The vegetation community described by Connell Wagner as Subtropical Coastal Floodplain Forest is shown as the area dominated by Forest Red Gum (*Figure 3.4*). The general absence of diagnostic understorey and ground cover species on site meant that this area of vegetation could not be positively identified as Subtropical Coastal Floodplain Forest. In addition, it is considered that if current and ongoing disturbances were removed from this area the community would not return to its pre-disturbance state, as the *in situ* native biota have been largely replaced by exotic species, and the soil has been disturbed.

The proposal aims to retain trees that will not be removed for development or for safety or asset protection purposes and this will provide potential opportunity for continued habitat linkage for fauna to areas of vegetation to the north and south. The tree retention plan for the site is shown in *Figure 4.2*.



Figure 4.1

Area of Highest Mammal Activity During  
April 2006 Surveys (ERM)





<b>PROPOSED SUBDIVISION</b> ARAKOON STREET, SOUTH WEST ROCKS		<b>AMENDMENTS</b> REF. No. 47/3833/4 SHEET 1 OF 1 SHEETS	
<b>ROSE ATKINS</b> CONSULTING SURVEYORS 142 BUNNINGS ROAD, BLACKTOWN NSW PH: (02) 9090 0000, 020 807 7300 EMAIL: info@roseatkins.com.au		<b>MVPG</b> Andrew Miller Property Group Pty Limited	
PLAN 558: 1:1000 LONG SECT. N:..... CROSS SECT. N:..... V:.....	REDUCED: 1:200 LONG SECT. N:..... CROSS SECT. N:..... V:.....	DATE: 10/10/14 DRAWN BY: ..... CHECKED BY: ..... DESIGNED BY: ..... APPROVED BY: .....	DATE: 10/10/14 DRAWN BY: ..... CHECKED BY: ..... DESIGNED BY: ..... APPROVED BY: .....

Figure 4.2 Tree Retention Plan for the Site