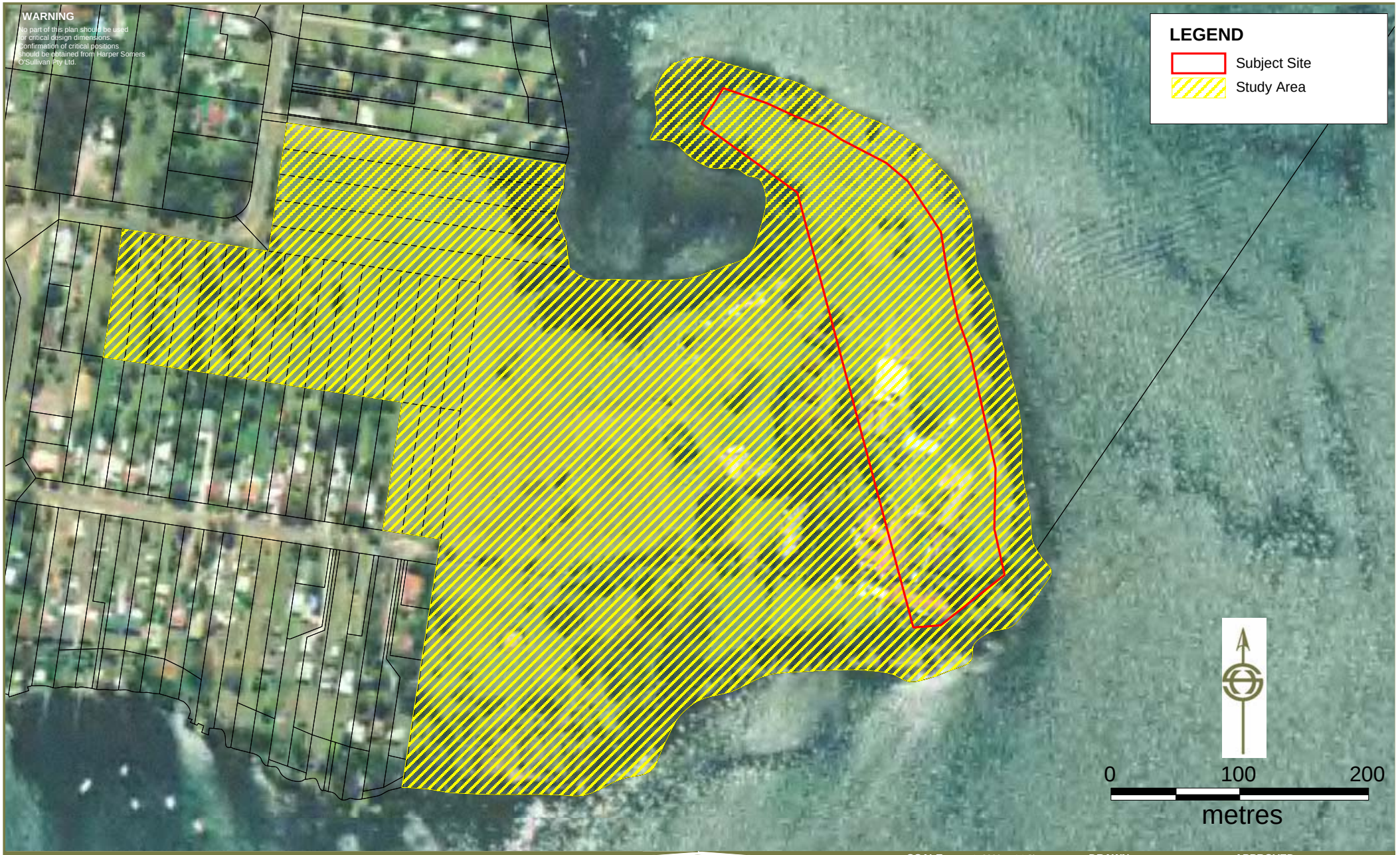

TITLE:
Figure 1-2
Study Area and Subject Site

CLIENT:
Johnson Property Group Pty Ltd

PLANNING SURVEYING ECOLOGY

HARPER SOMERS O'SULLIVAN

SCALE: 1: 3900 at A4 Size **DRAWN:** E. Graham **APPROVED:** S. Jones

DATUM: MGA Zone 56 (GDA 94) **DATE:** 12/11/2007

LAYOUT REF: J:\JOBS\20k\20970 - Trinity Point\Mar .... Resort - 2007\MapInfo\20970 FF FIG 1-3 StudyArea&Site.121107.wor

CONTOUR INTERVAL: N/A

JOB REF: 20970

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Source : HBO + EMTB Architecture Pty Ltd

TITLE: Figure 1-3 Proposed Development Layout
Trinity Point
Lake Macquarie

CLIENT:
Johnson Property Group

PLANNING SURVEYING ECOLOGY

HARPER SOMERS O'SULLIVAN

SCALE: NTS
DRAWN: L Steel
APPROVED: A McConville
DATE: 12 November 2007
SURVEYOR:
DATUM:
ORIGIN:
CONTOUR INTERVAL: Lot Layout
SHEET 1 of 1
AUTOCAD REF: 20970-2A_Lot Layout
LAYOUT REF: Lot Layout
JOB REF: 20970

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2 METHODOLOGY

2.1 Summary of methods

The development of the Ecological Assessment for Trinity Point Marina comprised of the following aspects:

- **Collation and review of existing flora and fauna datasets and survey reports** – Five previous flora and fauna investigation and assessment reports undertaken by HSO (2004; 2003a; 2003b; 2002; and 2001) were reviewed as part of this ecological assessment. Additionally the NPWS Atlas of NSW Wildlife and BioNet databases were searched for threatened species records within 10 km of the site. An EPBC Act Protected Matters Search within 10 km of the site was also undertaken.

- **Vegetation survey & mapping datasets** – The vegetation assessment included a review of the Lower Hunter Central Coast Regional Environmental Management Strategy (LHCCREMS) regional vegetation mapping (House, 2003) and finer scale vegetation survey and mapping that was undertaken by HSO (2001). A site inspection was undertaken within the subject site to verify the vegetation community mapping previously undertaken.

- **Threatened species surveys and habitat investigations –** Targeted surveys for threatened flora and fauna species considered likely to occur within the site were undertaken as part of previous investigations (HSO, 2001). Further threatened species habitat assessment has been undertaken as part of this ecological assessment report using information presented in HSO (2001; 2003b; 2004) and collected during the site inspection.

- **Site inspection** - a RPS HSO Ecologist undertook a site inspection on the 23 October 2007 to verify previous vegetation mapping and to assess the current condition and habitat values of the subject site.

Table 2-1 below summarises the field survey methods and survey effort carried out within and/or adjacent to the site. Previous flora and fauna survey reports undertaken by HSO (2001 and 2003b) have been attached as Appendix B and C to support this Terrestrial Ecological Assessment.

Table 2-1 Combined survey effort of flora and fauna investigations within the study area

	Harper Somers O'Sullivan (*2001*) Flora and Fauna Survey and Assessment	**Harper Somers O'Sullivan (*2003b*) Supplementary Owl Survey**	**RPS Harper Somers O'Sullivan (2007) current**	**Combined Total**	**Minimum DECC (2004) Requirements**
Season	Winter (August)	Spring (November)	Spring (October)	Winter and Spring	-
Location	Study area	North-western section of 2(a) zoned land (outside subject site , but within study area)	Subject site only	Study area	-
Flora Survey Work	Random meander, 4 x quadrats and 4 x transects. Targeted threatened flora searches	-	Verify vegetation mapping, identify individual trees within proposal footprint.	4 x Transects, 4 x Quadrats. Delineation of vegetation community boundaries noting vegetation and significant species.	Transects - 1 x 100m transect per stratification unit <2 ha; Quadrats - 1 x quadrat per stratification unit <2 ha; Random Meander - One 30 minute random meander per quadrat.
Diurnal Bird Survey	General observation and call identification	General observation	General observation	Census, general and targeted surveys.	Area search, wetland census, water source census.
Effort	Undertaken during each site visit	Undertaken whilst carrying out habitat searches	Undertaken opportunistically during site visit	Estimated 9 hours targeted and incidental observations	1ha sample for 20 mins per habitat.
Nocturnal Bird Survey	Spotlighting, stagwatching, call playback and call identification	Stagwatching, spotlighting, call playback and call identification	-	Stagwatching, spotlighting, call playback and call identification	Call playback, day habitat search, stagwatching, spotlighting.
Effort	2 hours	3hrs	-	5 hours over four separate visits, various locations	Call playback - 5 visits per site for Powerful Owl, Barking Owl and Grass Owl; 6 visits per site for Sooty Owl; 8 visits per site for Masked Owl. Stagwatching - 30 minutes prior and 60 minutes following sunset.
Herpetofauna Survey	General observation and hand searches in habitat	General observation	General observation	Diurnal-hand searches in suitable habitat for frogs and reptiles. Nocturnal spotlighting.	REPTILES: Diurnal hand searches, spotlighting and pitfall trapping. November to March. AMPHIBIANS: Diurnal and nocturnal habitat searches. Playback of recorded calls.
Effort	Unknown	Undertaken whilst carrying out habitat searches	Undertaken opportunistically during site visit	Estimated 5 hours	REPTILES: Diurnal - 30 minute searches on 2 separate days. Nocturnal - 30 minute search on 2 separate nights. AMPHIBIANS: Diurnal habitat search - 1 hour per stratification unit. Spotlighting - 30 mins on 2 separate nights; Playback - Once on each of 2 separate nights; Nocturnal habitat search - 2 hrs per 200 metre of water body edge.
Bat Survey	Bat call recording (ANABAT) and spotlighting	-	-	Bat call recording and spotlighting	Harp trapping, ultrasonic call recording, spotlighting and habitat searches. Trip lines and mist netting for targeted surveys.
Effort	1.5 hours bat call recording; 2 hours spotlighting	-	-	1.5 hours bat call recording; 2 hours spotlighting	Harp trapping - 4 trap nights over 2 consecutive nights (October - March) per stratification unit. Ultrasonic call recording - 2 sound recording devices for the entire night (minimum 4 hours) for two nights (October - March) per stratification unit. Spotlighting - 2 x 1 hour spotlighting on 2 separate nights (October - March) per stratification unit.
Terrestrial Mammal Survey	Terrestrial Elliott 'A' trapping	-	-	Elliott 'A' trapping	Elliott 'A', Elliott 'B' and / or cage traps and hair tubes.
Effort	15 x Elliott 'A' traps for 4 nights (total of 60 trap nights)	-	-	60 trap nights over 4 nights	Elliott 'A' and Elliott 'B' traps - 100 trap nights over 3-4 consecutive nights per stratification unit. Cage traps - 24 trap nights over 304 consecutive nights per stratification unit. Hair tubes - 10 large and 10 small placed in pairs for four days and four nights per stratification unit.
Arboreal Mammal Survey	Arboreal trapping, Stagwatching and Spotlighting	-	-	Elliott 'B' trapping, spotlighting and stagwatching.	Arboreal Elliott 'B' traps, arboreal hairtubes and spotlighting.
Effort	10 x Elliott 'B' traps mounted on trees for 4 nights (total of 40 trap nights); 2hrs spotlighting and stagwatching	-	-	40 trap nights over 4 nights; 2hrs spotlighting and stagwatching	Arboreal Elliot 'B' trapping - 24 trap nights over 3-4 consecutive nights per stratification unit. Aboreal hairtubes - 3 tubes in each of 10 habitat trees for at least 4 days and 4 nights. Spotlighting: 2 x 1 hour and 1km, walking at approximately 1km per hour on 2 separate nights.
Koala Survey	Spotlighting, habitat searches and general observation	-	-	Searches for scratch marks & scats, spotlighting and SEPP 44 assessment	Call playback, spotlighting and habitat searches.
Effort	2hrs spotlighting	-	-	Estimated 4 hrs	Call playback - 2 sites per stratification unit on 2 separate nights. Spotlighting: 2 x 1 hour and 1km, walking at approximately 1km per hour on 2 separate nights.
Secondary indications and incidental observations	General observation and habitat searches	Searches under each hollow-bearing tree for indication of owl presence; observation of hollow-bearing trees for usage (scratches, wear marks etc)	General observation and habitat searches	Searches for scratches, scats, diggings, whitewash, nests, burrows, bones, feathers	Searches of suitable habitat
Effort	Undertaken during each site visit	1.25hrs	Undertaken opportunistically during site visit	Estimated 5hrs	As necessary

2.2 Vegetation survey and mapping

Harper Somers O'Sullivan (HSO, 2001) undertook a vegetation survey and vegetation community mapping across the entire study area, which included the subject site. The flora survey methodology consisted of a combination of quadrats, transects, random meanders and targeted searches for threatened flora species considered likely to occur within the site. Vegetation community mapping was undertaken using information collected during the flora survey and aerial photograph interpretation. Significant plants were recorded using a handheld Magellan 320 GPS and depicted on appropriate maps.

A site inspection was undertaken by a RPS HSO ecologist on 23 October 2007 to verify and update initial vegetation surveys and vegetation community mapping undertaken by HSO (2001) within the subject site. Individual remnant trees were identified within the proposal footprint.

2.3 Fauna Survey

Fauna surveys were conducted by HSO (2001) within the study area, utilising targeted methods to sample a range of fauna species. The main field surveys were undertaken 14-24 August 2001, with other site inspections carried out 14 June 2001 and 1 November 2001.

Methods employed by HSO (2001) included:

- fauna habitat assessment;
- significant tree survey;
- terrestrial mammal trapping;
- arboreal mammal trapping;
- bat call detection (Anabat II detector);
- avifauna survey (diurnal and nocturnal surveys);
- herpetofauna surveys;
- spotlighting; and
- secondary indications and incidental observations.

Targeted owl surveys were undertaken adjacent within the study area, but outside of the subject site, by HSO (2003b) on 12 November 2003. Methodology included:

- diurnal habitat searches under hollow-bearing trees for signs of whitewash, regurgitation pellets, prey remains, feathers, nesting material etc as evidence of usage by owl species;
- stagwatching of hollows;
- spotlighting;
- call playback of the Masked Owl (*Tyto novaehollandiae*), Powerful Owl (*Ninox strenua*) and Barking Owl (*N. connivens*);

- distressed prey imitation; and
- opportunistic fauna observations.

A site inspection was undertaken by a RPS HSO ecologist on 23 October 2007 to assess the fauna habitat present within the subject site and included:

- hollow-bearing tree survey;
- notes on the presence of important foraging resources (such as winter flowering myrtaceous tree species, *Allocasuarina* species, etc);
- habitat searches for evidence of fauna use such as scats, owl pellets, scratches on trees and glider incisions; and
- opportunistic fauna observations.

2.4 Limitations

A number of limitations / deficiencies were experienced during the course of these investigations and / or are inherent in the results data. These should be noted and considered in regards to the Trinity Point Marina assessment process, and include:

- the results of threatened species surveys are somewhat biased to those threatened species which are easily detected such as diurnal / sedentary birds, perennial plants and some mammals. Habitat suitability assessment has been used for threatened species where less survey effort was undertaken; and
- ecosystems and species distributions are dynamic in nature and are likely to change in time; therefore, the data presented should only be viewed as a 'snapshot in time'.

Where possible, these above mentioned limitations have been taken into consideration with regards to results interpretations, threatened species assessments and conclusions.

2.5 Qualifications and licencing

Qualifications

The Ecological Assessment Report was undertaken by the following ecologists from RPS HSO:

- Anna McConville (B Env Sc);
- Craig Anderson (B App Sc (EAM)); and
- Toby Lambert (B Env Sc).

Licensing

Research was conducted under the following licences:

- NSW National Parks and Wildlife Service Scientific Investigation Licence S10300 (Valid 30 November 2007);

- Animal Research Authority (Trim File No: 01/1142) issued by NSW Agriculture (Valid 12 March 2008);
- Animal Care and Ethics Committee Certificate of Approval (Trim File No: 01/1142) issued by NSW Agriculture (Valid 12 March 2010); and
- Certificate of Accreditation of a Corporation as an Animal Research Establishment (Trim File No: 01/1522 & Ref No: AW2001/014) issued by NSW Agriculture (Valid 26 May 2008).

3 RESULTS

3.1 Threatened and Significant Flora Species

No threatened flora species listed under TSC Act 1995 and/or EPBC Act 1999 were recorded within or adjacent to the subject site during recent site inspection (October 2007) or within the study area during previous investigations (HSO, 2001; 2003b). One regionally significant flora species, Tallowwood (*Eucalyptus microcorys*), listed under LMCC (2001) was identified within the study area by HSO (2001); however, no individuals were recorded within the subject site.

A total of 13 threatened flora species were recorded within 10 km of the study area (NPWS Atlas of NSW wildlife data). An assessment of the likelihood of occurrence of these threatened flora species (contained in Appendix D) concluded that no threatened flora species were considered likely to occur due to the absence of suitable habitat or absence from the subject site during targeted surveys. It should be noted that the subject site is quite open, being primarily in a 'parkland' state, thus detection of any threatened flora was considered to be relatively easy. Additionally, no ROTAP species listed by Briggs and Leigh (1996) were recorded within the subject site.

3.2 Vegetation Communities

Three vegetation communities were recorded within the study area by HSO (2001) and verified during a recent site inspection (October 2007):

- Eucalypt Woodland;
- Riparian Vegetation; and
- Open Pasture.

The Eucalypt Woodland vegetation community within the subject site was found to contain remnant Forest Red Gum (*Eucalyptus tereticornis*) and Rough-barked Apple (*Angophora floribunda*) (HSO, 2001). The understorey was found to be mostly absent and the groundcover was found to be a mixture of native and introduced grasses and herbaceous weeds (HSO, 2001). Three mature Forest Red Gums exist within the development footprint, with the remainder of the Eucalypt Woodland vegetation community existing to the west or as an ecotone between the Riparian Vegetation to the east.

The Riparian Vegetation was found to contain a natural succession from the water's edge of Mangroves, Saltmarsh and ultimately, Swamp Oak Forest (HSO, 2001). The Riparian Vegetation integrades with remnant Eucalypt Woodland in the east of the subject site, where Forest Red Gums and Rough-barked Apples exist adjacent to Swamp Oak.

The Open Pasture vegetation community consists of introduced grasses and herbaceous weeds with little ecological significance (HSO, 2001). A mature Camphor Laurel (*Cinnamomum camphora*), a class 4 noxious weed, listed under the NSW *Noxious Weeds Act 1993*, was recorded in the east of the subject site.

Figure 3-1 illustrates the approximate location of vegetation communities within the subject site.

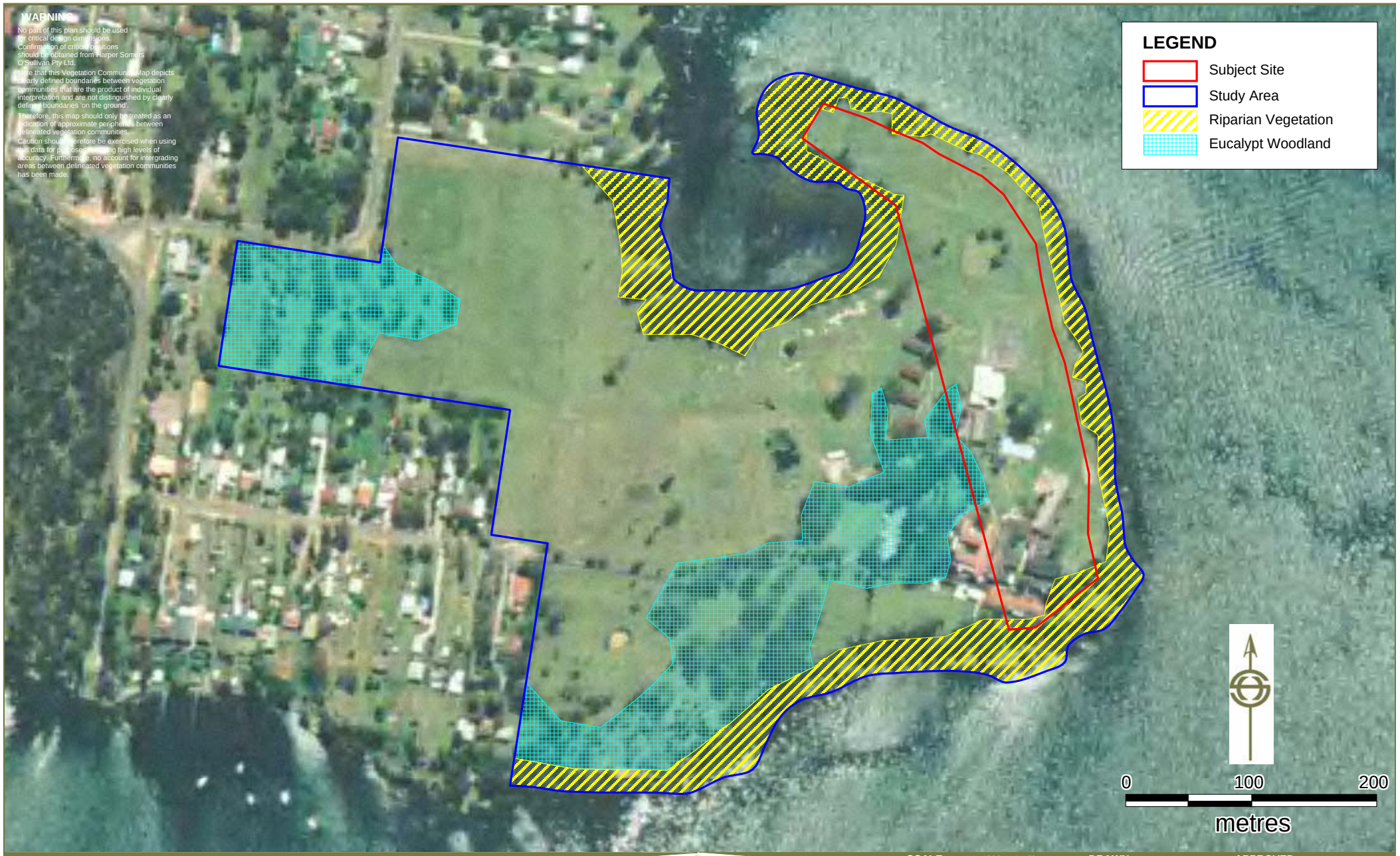
3.2.1 Endangered Ecological Communities

The subject site was found to contain remnants of two EECs listed under TSC Act 1995, River Flat Eucalypt Forest (RFEF) and Swamp Oak Floodplain Forest (SOFF).

The Eucalypt Woodland Vegetation community within the subject site contained Forest Red Gum and Rough-barked Apple which may indicate that the subject site once contained the RFEF EEC. However, clearing for the St. John of God training centre and grazing has eradicated all but a few scattered remnant trees. Additionally, the regeneration potential of this vegetation community is considered to be quite low within the subject site due to the high level of soil disturbance and understorey maintenance (mowing) due to the close proximity of the training centre facilities.

The Riparian Vegetation within the subject site contained SOFF EEC varies in condition from highly disturbed (isolated Swamp Oak trees within grassland) to areas where minor understorey components were present. Small areas of Saltmarsh EEC were also recorded immediately adjacent to the subject site; however, these have been discussed within the Aquatic Ecological Assessment undertaken by The Ecology Lab.

The Riparian Vegetation community mapped in Figure 3-1 contains both SOFF and RFEF EECs which merge together (commonly referred to as an ecotone) in some areas. The northern portion of riparian vegetation is low-lying and is considered to be consistent with SOFF EEC, whilst the southern portion exists at higher elevation and is considered to be more consistent with RFEF EEC.



TITLE:
Figure 3-1
Vegetation Map

CLIENT:
Johnson Property Group Pty Ltd

PLANNING SURVEYING ECOLOGY

HARPER SOMERS O'SULLIVAN

SCALE: 1: 4000 at A4 Size **DRAWN:** E.Graham **APPROVED:** S. Jones

DATUM: MGA Zone 56 (GDA 94) **DATE:** 12/11/2007

LAYOUT REF: J:\JOBS\20k\20970 - Trinity Point\Mar .... Resort - 2007\MapInfo\20970 FF FIG 3-1 VegMap.121107.wor

CONTOUR INTERVAL: N/A

JOB REF: 20970

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4 FAUNA

4.1 Habitat

Fauna habitat within the subject site was found to be limited to remnant trees and riparian vegetation. Winter flowering tree species recorded within the subject site include Forest Red Gum, which may provide foraging resources for nectarivorous bird and mammal species. Additionally, figs (*Ficus* sp.) located within the southern portion of the subject site are likely to provide some foraging habitat for frugivorous species such as the Grey-headed Flying Fox.

No hollow-bearing trees were recorded within the subject site; however, adjacent areas within the broader study area were found to contain trees with a variety of hollow size classes. During the recent site inspection, three mature Forest Red Gums that would represent foraging habitat for a number of fauna species were recorded within the central portion of the proposal footprint.

The subject site consists largely of grassland with scattered trees that offered little shelter for small mammals and reptiles. Some of the riparian areas contained some shelter for small mammals and reptiles. The absence of understorey species across most of the subject site would deter many fauna species.

The subject site is situated on the tip of the Morisset Park peninsula and as such terrestrial connectivity exists only to the west from the site. However, since the subject site is largely cleared, current connectivity is limited. Riparian vegetation with remnant understorey along the northern boundary of the subject site does provide some connectivity to vegetation to the west. Some tentative connectivity does remain between remnant canopy within the subject site and vegetation to the west; however, residential development at Morisset Park further limits the functionality of this tenuous link.

4.2 Terrestrial Mammals

The only terrestrial mammals recorded within the within the study area consisted of introduced pest species such as Rabbits (*Oryctolagus cuniculus*) and Foxes (*Vulpes vulpes*) and introduced domestic species such as Cattle (*Bos taurus*), Horses (*Equus caballus*), dogs (C*anis familiaris*) and cats (*Felis catus*).

4.3 Arboreal Mammals

Aboreal mammals recorded by HSO (2001) within the study area included:

- Common Brushtail Possum (*Trichosurus vulpecula*);
- Mountain Brushtail Possum (*T. caninus*); and
- Common Ringtail Possum (*Pseudocheirus peregrinus*).

Personal communications with a local resident and Lake Macquarie SCA ranger indicated that Squirrel Glider (*Petaurus norfolcensis*) was active in adjacent areas.

4.4 Bats

Microchiropteran bat species recorded within the study area by HSO (2001) included:

- Gould's Wattled Bat (*Chalinolobus gouldii*);
- Long-eared Bat (*Nyctophilus* sp.); and
- East-coast Freetail Bat (*Mormopterus norfolkensis*).

4.5 Avifauna

Avifauna species recorded within the study area by HSO (2001) include species commonly recorded in remnant woodland such as Galah (*Cacatua roseicapilla*), Wood Ducks (*Chenonetta jubata*), Rainbow Lorikeet (*Trichoglossus haematodus*), Scaly-breasted Lorikeet (*Trichoglossus chlorolepidotus*), Laughing Kookaburra (*Dacelo novaeguinea*) and Whistling Kite (*Haliastur sphenurus*). Riparian zones contained avifauna species such as Superb Fairy Wrens (*Malurus assimilis*), Yellow Thornbills (*Acanthiza lineata*) and Satin Bowerbird (*Ptilinorhynchus violaceus*) (HSO, 2001).

4.6 Herpetofauna

Frog and reptile species identified within the study area by HSO (2001) included several common species: Common Eastern Froglet (*Crinia signifera*), Spotted Grass Frog (*Limnodynastes tasmaniensis*), Dwarf Tree Frog (*Litoria fallax*), Grass Skink (*Lampropholis delicata*), Garden Skink (*Lampropholis guichenoti*) and Three-toed Skink (*Saiphos equalis*).

4.7 Threatened Fauna Species

One threatened fauna species was recorded within the study area during previous investigations, being Eastern Freetail Bat (Mormopterus norfolkensis). A further seven threatened fauna species have been considered likely to occur within the subject site on at least an occasional basis, as assessed in Appendix D. Threatened fauna species considered to have a moderate to high chance of occurrence within the site include:

- Osprey (*Pandion haliaetus*);
- Swift Parrot (*Lathamus discolor*);
- Grey-headed Flying Fox (*Pteropus poliocephalus*);
- Eastern Bentwing Bat (*Miniopterus schreibersii*);
- Little Bentwing Bat (*Miniopterus australis*);
- Large-footed Myotis (*Myotis adversus*); and
- Greater Broad-nosed Bat (*Scoteanax ruepelli*).

5 ECOLOGICAL IMPLICATIONS OF THE PROPOSAL

5.1 Vegetation Removal

Following a review of the current design it is anticipated that 16 trees would require removal including three mature *Eucalyptus tereticornis* (Forest Red Gums), five Swamp Oak (*Casuarina glauca*), two Rough-barked Apple (*Angophora floribunda*) and a number of ornamental species such as Plum Pine (*Podocarpus elatus*), English Oak (*Quercus robur*) and Broad-leaved Privet (*Ligustrum lucidum*) (see Figure 5-1). In addition, a further five trees consisting of mainly ornamental species may be removed subject to the finalisation of the detailed design. The remnant native trees to be removed as a result of the proposal comprise a highly disturbed exampled of endangered riparian vegetation. Figure 5-1 depicts the trees to be removed and those that would be retained within the development proposal.

It is understood that an area of vegetation including an historic Norfolk Island Pine (*Araucaria heterophylla*), a number of Figs (*Ficus* sp.) and Cabbage Tree Palm (*Livistona australis*) in the south of the subject site would not be removed as a result of the proposal.

The remainder of the subject site is cleared grassland, few ornamental shrubs and old building and facility footprints that would require little vegetation clearance.

No impacts upon EPBC Act matters of National Environmental Significance are expected.

5.2 Threatened Species

5.2.1 Flora

No threatened flora species were recorded or considered likely to occur within the subject site and as such there are few potential implications with regards to threatened flora species arising from the proposal.

No impacts upon EPBC Act matters of National Environmental Significance are expected.

5.2.2 Fauna

One threatened fauna species (Eastern Freetail Bat - *Mormopterus norfolkensis*) was recorded within the study area during investigations (HSO, 2001). A further seven threatened fauna species were considered likely to occur within the subject site on at least an occasional basis. All the threatened fauna species considered likely to occur within the subject site are highly mobile species able to exist or traverse in open habitats.

The removal or modification of minor foraging habitat (vegetation) for these threatened fauna species is considered to comprise a negligible impact. This is particularly the case given the proportion of habitat available in the local area and the small amount of foraging habitat to be removed within the subject site.

Potential nesting/breeding habitat in tall remnant trees for Osprey may be affected as a result of the proposal. However, the species or evidence of Osprey nesting was not recorded during a recent site investigation (October 2007) or during the various previous surveys (HSO, 2001; 2003b). No roosting/breeding habitat was recorded within the subject site for

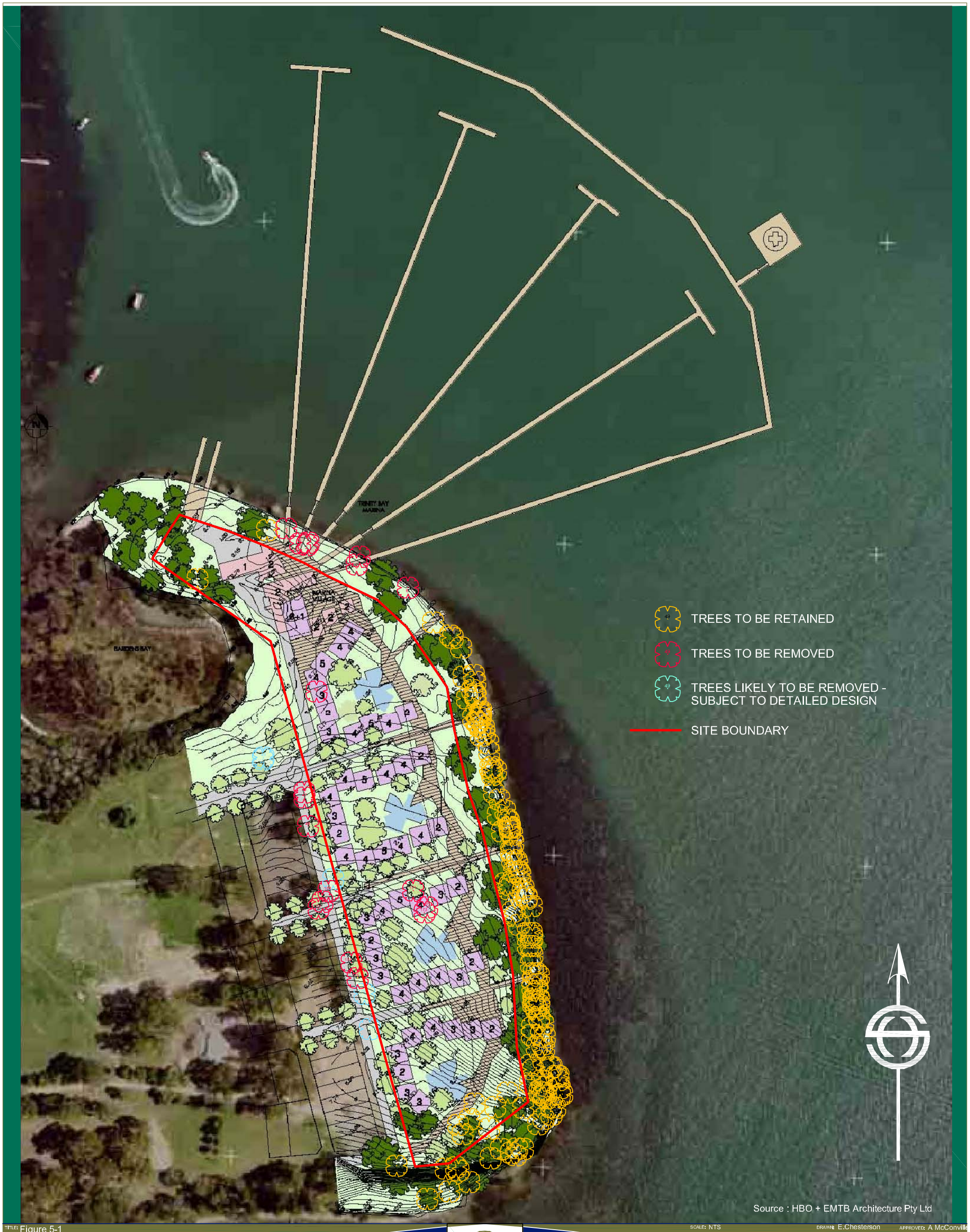
the remaining threatened fauna species considered likely to occur and as such would not be impacted upon by the proposal.

Potential impacts arising from the proposed Trinity Point Marina on threatened fauna species recorded or considered likely to occur within the subject site are of a small scale and magnitude. The proposal is considered unlikely to adversely impact on threatened fauna species recorded or considered likely to occur within the subject site.

A helicopter landing pad and associated use of helicopters forms part of the Trinity Point proposal. The helicopter-landing pad is located at the end of the marina on Lake Macquarie, approximately 300 m from the subject site. Any impacts that require consideration as part of this Terrestrial Ecological Assessment are limited to those impacts that might be expected to occur upon aerial terrestrial (primarily) fauna. Such species would primarily consist of birds and bats. In terms of birds, the main issue of potential concern would be impacts upon flocking wader species. No significant residential populations of any such species have been recorded during the various surveys undertaken over the site. Bird mortality in general would not be expected to be significant as such impacts would be considered to consist primarily of occasional blade strike upon the common species recorded within the subject site. Bat mortality in general would be limited to very occasional blade strike of individuals should the helicopter landing pad be operated at night.

In terms of impacts upon groundwater tables and groundwater-dependent ecosystems, no significant impacts are considered likely to occur since the groundwater-related ecosystems are primarily aquatic with water sources from Lake Macquarie (such as Mangroves and Saltmarsh). However, the Aquatic Ecological Assessment Report prepared for this proposal by The Ecology Lab, covers this in more detail.

No impacts upon EPBC Act matters of National Environmental Significance are expected.



TITLE: Figure 5-1
Proposed Tree Removal

CLIENT:
Johnson Property Group Pty Ltd

PLANNING SURVEYING ECOLOGY

HARPER SOMERS O'SULLIVAN

SCALE: NTS
DRAWN: E.Chesterson
APPROVED: A McConville
DATE: 7 December 2007
SURVEYOR:
DATUM:
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SHEET 1 of 1
AUTOCAD REF: 20970-2A_Lot Layout
LAYOUT REF: FIG 5-1
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