

Cobaki Estate Environmental Assessment Report

Southern Special Purpose Precinct
(SSPP) Bulk Earthworks

- Bulk Earthworks

Revision 2
August 2016



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Report for:	LEDA Manorstead PTY LTD

PREPARATION, REVIEW AND AUTHORISATION

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1 INTRODUCTION

This Environmental Assessment has been prepared by SMEC Pty Ltd for LEDA Manorstead Pty Ltd and relates to the proposed infill area located within the Southern Special Purpose Precinct of the Cobaki Estate development.

1.1 Location

The Cobaki Development is located west of the Tugun Bypass and Gold Coast Airport, Tweed Heads. The proposed development is bound by the Queensland and New South Wales border to the north and west and Piggabean Road to the south. The site adjoins Cobaki Creek and Cobaki Broadwater to the east. It is located approximately 6km west of Tweed Heads/Coolangatta Town Centre and 1.5km west of the Gold Coast Airport and the Gold Coast Highway, and 500m west of the Pacific Motorway (Tugun Bypass). Access is currently off Piggabean Road. Future access will be off Boyd Street from the north and linking to Piggabean Road via the proposed Cobaki Parkway.

The site exists in its current state as a large portion of cleared land, which was previously cleared for agricultural purposes (cattle grazing), and scatterings of native vegetation communities.

This report specifically pertains to the infill area located in the Southern Special Purpose Precinct, herein referred to as the SSPP. The SSPP occurs in the southern section of the site and consists of land described as Lot 55 DP755740 and Lot 1 DP570076. The SSPP covers a total area of approximately 4.3ha, sharing boundaries with Cobaki Parkway and the Central Open Space.

The location of the SSPP with respect to the Cobaki site is shown in Figure 1.

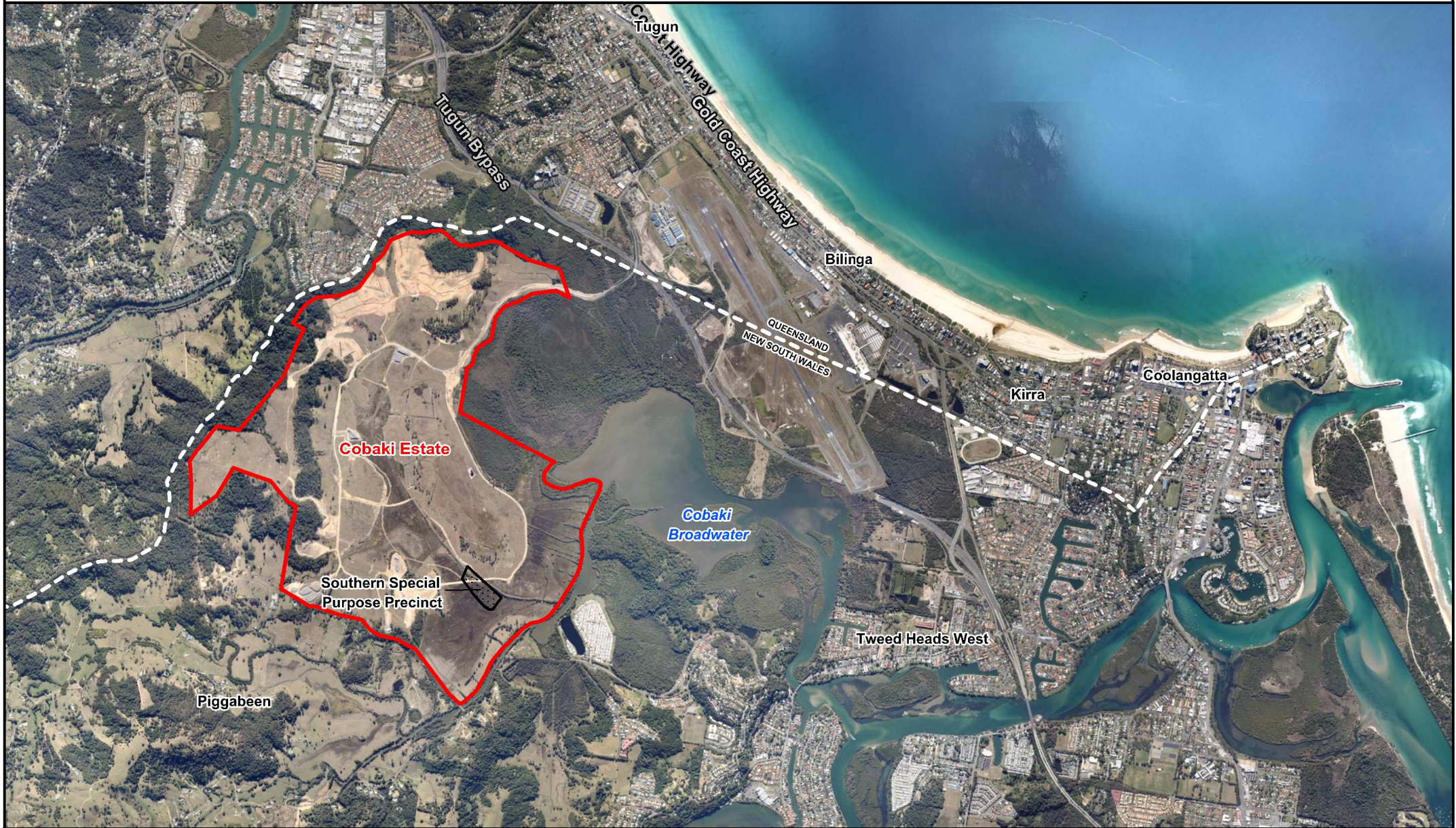
1.2 Scope

LEDA Manorstead are seeking a modification application for the Cobaki Estate Central Open Space Project Approval (08_0200 Mod 3) for the extraction and placement of fill in the SSPP, including bulk earthworks. Fill is proposed to be taken from Precinct 9 to place the required 170,185m³ of fill in the SSPP.

This report details the potential environmental impacts of the proposed earthworks and a description of environmental management, mitigation and monitoring measures to minimise these potential impacts.

Refer to Drawing YC0229-1E1-D03 of Appendix A for Scope of Works and earthworks intent.

Figure 1: Site Locality



COORDINATE SYSTEM
GDA 1994 MGA Zone 56

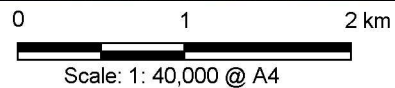


FIGURE 1 - Site Locality

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PROJECT NO. 30031162 **PROJECT TITLE** Cobaki Estate Management Plans

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1.3 Previous Studies

A number of previous studies have been undertaken and management plans prepared as part of the various stages of development approval for this proposed development. These have been reviewed as part of this assessment.

Studies and Plans reviewed as part of this report include, but are not limited to:

- Construction Environmental Management Plan – Precincts 9,11,SSPP (SMEC, 2013a)
- Fauna Management Plan – Precincts 9,11,SSPP (SMEC, 2013b)
- Site Regeneration and Revegetation Plan – Precincts 9,11,SSPP (SMEC, 2013c)
- Vegetation Management Plan – Precincts 9,11,SSPP (SMEC, 2013d)
- Flora and Fauna Monitoring Program (SMEC, 2013e)
- Acid Sulphate Soils Management Plan (SMEC, 2013f)
- Noise and Vibration Management Plan – Central Open Space and Precincts 1,2 and 6 (SMEC, 2013g)
- Freshwater Wetland Compensatory Habitat Management Plan (SMEC, 2012)
- Revised Assessment of Significance (JWA, 2013a)
- Revised Ecological Assessment (JWA, 2013b)
- Revised Saltmarsh Rehabilitation Plan (JWA, 2012)
- Revised Fauna Management Plan (JWA, 2010)

The various management plans have specific management measures, monitoring and reporting requirements that must be implemented as per the various conditions of approval relating to this proposed development.

2 APPROVALS AND LICENSING

The legislative requirements, policies, guidelines and standards relevant to the project are summarised in **Table 1**.

Table 1 Environmental Legislation Relevant to the Project

Legislation	Details of Approvals/Permits Required	Relevance to the Project
Commonwealth		
Environmental Protection and Biodiversity Act 1999 (EPBC)	The EPBC Act requires that actions that are proposed to be taken which are likely to have a significant impact on matters of national environmental significance (NES) are referred to the Minister for a decision on if it will be subject to a rigorous assessment and approval process. The EPBC Act also applies to actions that are likely to have a significant impact on the environment of Commonwealth land and to actions taken by the Commonwealth that will have a significant impact on the environment anywhere.	The Minister of SEWPaC provided approval of the development on 13 th October 2011, subject to a list of conditions.
Aboriginal and Torres Strait Islander Heritage Protection Act 1984	The Aboriginal and Torres Strait Islander Heritage Protection Act 1984 is the principal Commonwealth legislation for the protection of areas and objects of particular significance to Indigenous Australians.	The Act applies in addition to any State requirements. Persons who discover anything that they have reasonable grounds to suspect to be Aboriginal remains are required to report their discovery to the Minister (s.20).
Native Title Act 1993	The Native Title Act (1993) was developed by the Federal Government in recognition of the outcomes of the <i>Mabo versus Queensland</i> High Court decision in 1992 which found that the common law of Australia could authorise the rights of Aboriginal and Torres Strait Islander people to lands and waters according to their laws and customs (refer HCA₂₃ 1992). The Act aims to authorise and protect Aboriginal peoples' and Torres Strait Islanders' common law native title rights and interests with specifically to: - provide for the recognition and protection of native title; - establish ways in which future activities affecting native title may proceed; - establish a mechanism for determining applications for the recognition of native title; and - provide for, or permit, the validation of	Under the Native Title Act 1993 (Cwlth), the valid grant of a freehold estate on or before 23 December 1996 is known as a 'previous exclusive possession act' (PEPA). This means that native title has been extinguished over the area in question tenured as freehold. The area over which the Cobaki Development is proposed is tenured as freehold and therefore meets the definition of a PEPA.

Legislation	Details of Approvals/Permits Required	Relevance to the Project
	certain acts carried out before 1 January 1994 that were made invalid because of the existence of native title. The Act was substantially amended in 1998. The amended <i>Native Title Act (1993 (Cwlth))</i> allows for confirmation that native title rights and interests have been extinguished (removed) outright by providing a list of the kinds of acts or activities that extinguish native title rights and interests, and provides for, or permits, the validation of certain acts carried out between 1 January 1994 and 23 December 1996.	
New South Wales		
Environmental Planning and Assessment Act 1979 and Environmental Planning and Assessment Regulations 2000 (EP&A Act)	Development in NSW is regulated principally through the EP&A Act. It establishes a system of identifying development requiring consent, and the applicable assessment and approval processes. The Act makes provision for the development of Environmental Planning Instruments including State Environmental Planning Policies (SEPPs) and Local Plans.	On February 1 2007, the Director General, as delegate of the Minister of Planning, advised the applicant that the proposal for Cobaki Lakes Estate is a 'major' project to which Part 3A of the EP&A Act applies and requires the Minister's approval, and authorizes the submission of the Concept Plan.
Fisheries Management Act 1994	• Notification of dredging and/or reclamation works in waterways • Permit to obstruct fish passage • Permit to damage or remove aquatic vegetation	As the works proposed are being conducted under an existing part 3A approval, the requirements of the <i>Fisheries Management Act 1994</i> do not apply.
Threatened Species Conservation Act 1995	The Threatened Species Act 1995 identifies and protects threatened and endangered species, populations and ecological communities.	As several threatened species and endangered ecological communities will be impacted by the proposed development a number of management plans have been conditioned as part of MP06_0316 and MP08_0200 to ensure the long term protection of such species/communities.
National Parks and Wildlife Act 1974	The NPW Act provides for the reservation and dedication of national parks, nature reserves, historic sites etc and protection of certain native flora and fauna. It is also the principal legislation for the protection of Aboriginal objects and places of significance ("Aboriginal places").	Section 84 and 90 of the National Parks and Wildlife Act 1974 (NPW Act) provides the primary basis for the legal protection and management of Aboriginal sites and relics within NSW. The Act requires amongst other things: • Consultation with the

Legislation	Details of Approvals/Permits Required	Relevance to the Project
	It is an offence to disturb or move any Aboriginal objects without a permit (s.86). Similarly, it is an offence to destroy, deface or damage an Aboriginal place or Aboriginal object without consent from the D-G NPWS (s.90).	OEH prior to development to determine the existence of items of Aboriginal heritage; • Consultation with local Aboriginal groups; and • Consent to disturb Aboriginal heritage sites/items. In the case of a Part 3A Concept Plan, approval under the NPW Act is not required.
Noxious Weeds Act 1993	The Noxious Weeds Act 1993 defines the roles of government, councils, private landholders and public authorities in the management of noxious weeds, according to their potential to cause harm to the local environment.	Personnel and sub-contractors are to be made aware of correct procedures of removal and treatment of noxious weeds if they are identified in the work area.
Water Management Act 2000	The WMA consolidates the Water Act 1912 and the Rivers and Foreshores Improvement Act. It deals with surface and ground water management. Approval is required to undertake water supply works, drainage works, or floodplain works. The WMA provides a scheme for the transitional recognition of permits granted under the Water Act 1912.	Condition AN2 of the Project Approval requires water licensing.

3 POTENTIAL ENVIRONMENTAL IMPACTS

Construction activities associated with the SSPP include:

- Site establishment including installation of exclusion fencing;
- Removal of saltmarsh and freshwater wetland communities;
- Temporary erosion, sediment and water quality control measures;
- Topsoil stripping and management;
- Drainage construction; and
- Bulk earthworks (Refer to Appendix A for Bulk earthworks drawings)

Works could potentially impact on the following environmental aspects:

- Native Fauna and habitat;
- Native flora;
- Endangered Ecological Communities;
- Surface water quality;
- Acid sulphate soils and associated impacts;
- Air quality; and
- Cultural heritage.

3.1 Native fauna and habitat

Earthworks activities associated with the SSPP area will involve the removal of potential habitat for native fauna species. Furthermore, activities within the SSPP have the potential to indirectly affect fauna and habitats through:

- Mortality and loss of habitat (foraging, breeding, and roosting/nesting) due to changes in land use (vehicle strike, trampling, spills, dumping of waste, filling of tidal land); and
- Habitat degradation due to altered natural hydrological regimes and increases in pollutants.

Three (3) threatened fauna species and/or their habitat have been recorded within or adjacent to the SSPP, as detailed in **Table 2**.

Table 2 Threatened fauna species and/or habitat within or adjacent to the SSPP

Common name	Scientific name	Status	Act
Wallum froglet	<i>Crinia tinnula</i>	Vulnerable	TSC Act
Osprey	<i>Pandion haliaetus</i>	Vulnerable	TSC Act
Black-necked stork	<i>Ephippiorhynchus asiaticus</i>	Endangered	TSC Act

Specific potential impacts to threatened fauna and habitat are detailed below.

Wallum froglet (*Crinia tinnula*)

Local wallum froglet populations exist within and surrounding the site, with core (breeding and/or refuge) habitat for the species provided in the Compensatory Habitat Area containing wet heathland and wetland communities east of the proposed Cobaki Parkway. The locations of wallum froglets recorded during surveys are shown in **Figure 2**.

Approximately 79.12 hectares of forage habitat is considered likely to occur on the whole development site during suitable conditions (i.e. after periods of heavy rainfall). Approximately 0.23 hectares (0.3%) will be removed from the SSPP. However, the loss of potential forage habitat is unlikely to significantly impact upon the local population of wallum froglets as the proposed works will not remove or modify any 'core' habitat areas. 'Core' habitat areas are defined as those containing physical and ecological characteristics suitable for breeding and/or refuge for the species.

Potential indirect impacts to this species include:

- Alteration of water quality in drainage lines due to runoff from the construction site;
- Alteration of hydrology of the drainage lines;
- Contamination or reduction of water quality in drainage lines due to runoff from chemicals or debris (fertilisers, etc.);
- Introduction of weed species into core habitat areas; and
- Increased competition from disturbance-adapted native, domestic and introduced fauna (such as Cane toads and Gambusia).

Osprey (*Pandion haliaetus*)

The osprey occupies coastal areas, especially the mouths of large rivers, lagoons and lakes throughout most of Australia (excluding Tasmania and Victoria).

Three ospreys and a stick nest were observed by SMEC on the southern nesting platform in the Saltmarsh Rehabilitation Area in June 2013. This nest site is approximately 300m south-east of the SSPP (Figure 3), and human disturbance near the nest site is not expected. The proposed development is considered highly unlikely to result in significant impacts on this species (JWA, 2010a).

Black-necked stork (*Ephippiorhynchus asiaticus*)

The black-necked stork inhabits wetlands, such as floodplains of rivers with large shallow swamps and pools, freshwater meadows, wet heathland, farm dams, shallow floodwaters and adjacent grasslands, paddocks and open savannah woodlands in coastal and sub-coastal northern and eastern Australia (DECC, 2012). Storks usually forage in water 5-30cm deep for vertebrate and invertebrate prey and build large nests high in tall trees close to water. The territory of the Black-necked Stork in Cobaki is predicted at 4730 ha (Clancy and Andren, 2009). A pair was observed nesting at Piggabeen in 2005 with young on the nest, however the exact location of this nest has not been released (Clancy and Andren, 2009).

This species has been recorded foraging within the SSPP, Saltmarsh Rehabilitation Area and Central Open Space (WBM, 1990; Warren, 1993; Woodward-Clyde 1997; EcoPro 2004 & SMEC, 2014). Most recent sightings were of an individual within the western extent of the Saltmarsh Rehabilitation Area in April 2014 and a pair foraging in the Central Open Space in May 2014.

Approximately 142 hectares of potential forage habitat for the species exists within the low-lying eastern and south eastern portions of the site, and the species has been identified foraging within the SSPP. Refer to Figure 4 for Potential Habitat and recorded sightings of the Black-necked Stork.

Approximately 78.7 hectares (55%) of potential forage habitat will be removed from the site, of which 4 hectares occurs within the SSPP. The potential foraging habitat to be removed comprises Saltmarsh, dams and drainage lines within the SSPP. Given the high mobility of this species, the loss of potential foraging habitat is not considered significant in relation to the regional distribution of habitat for this species.

No breeding habitat will be impacted by the works.

Figure 2: Wallum Froglet Distribution and Habitat

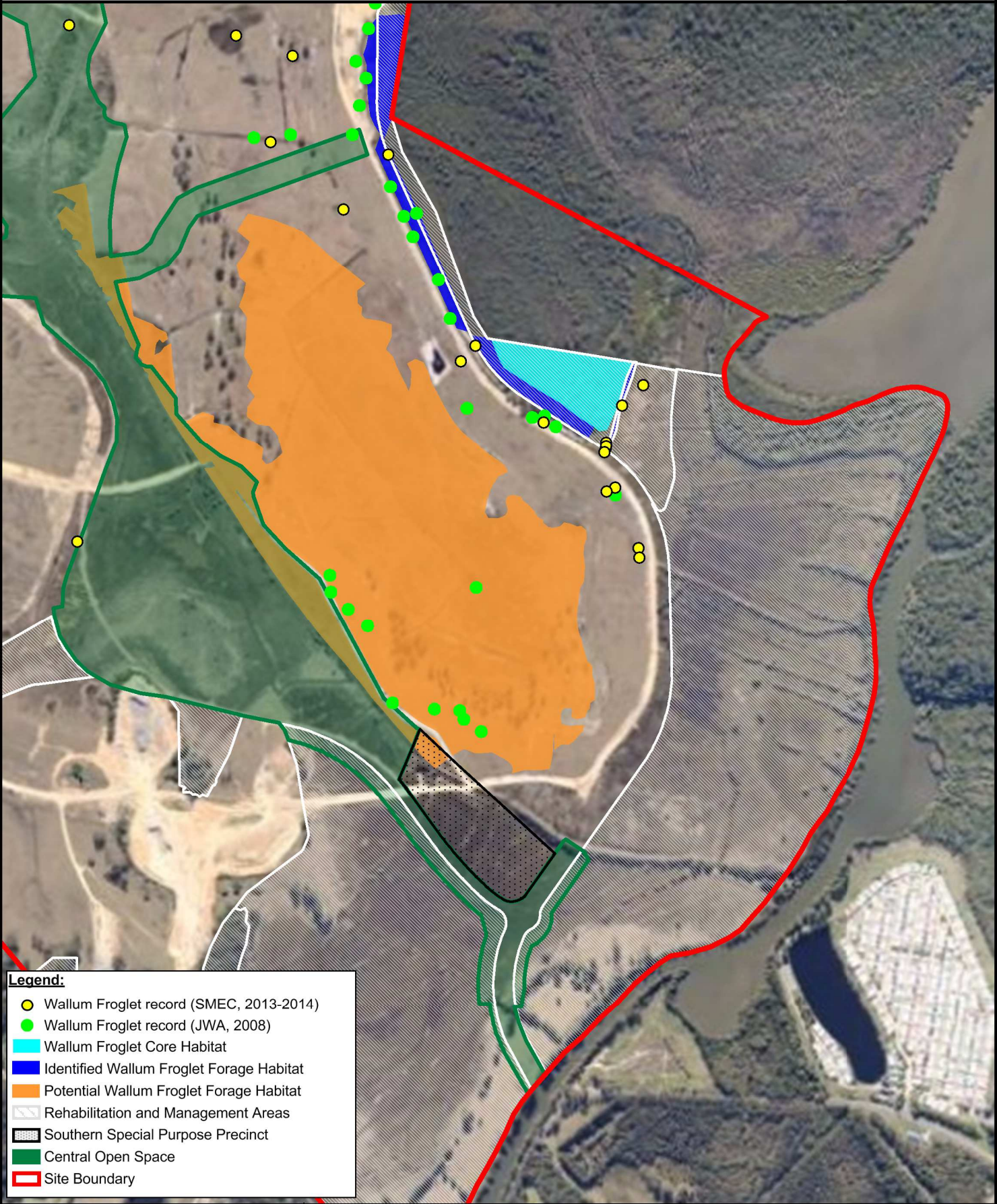


FIGURE 2: Wallum Froglet Distribution and Habitat CREATED BY AM11482 PROJECT NO. 30031162 PROJECT TITLE Cobaki Estate Environmental Management Plans	REVISION 0 DATE 05/06/2014	STATUS FINAL ISSUED FOR INFORMATION	 Scale: 1:10,000 @ A4	 CONSULTANT SMEC Australia Copyright SMEC Australia Pty Ltd. All Rights Reserved. CLIENT LEDA MANORSTEAD PTY LTD
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Figure 3: Raptor Nesting Platforms and Nest Locations

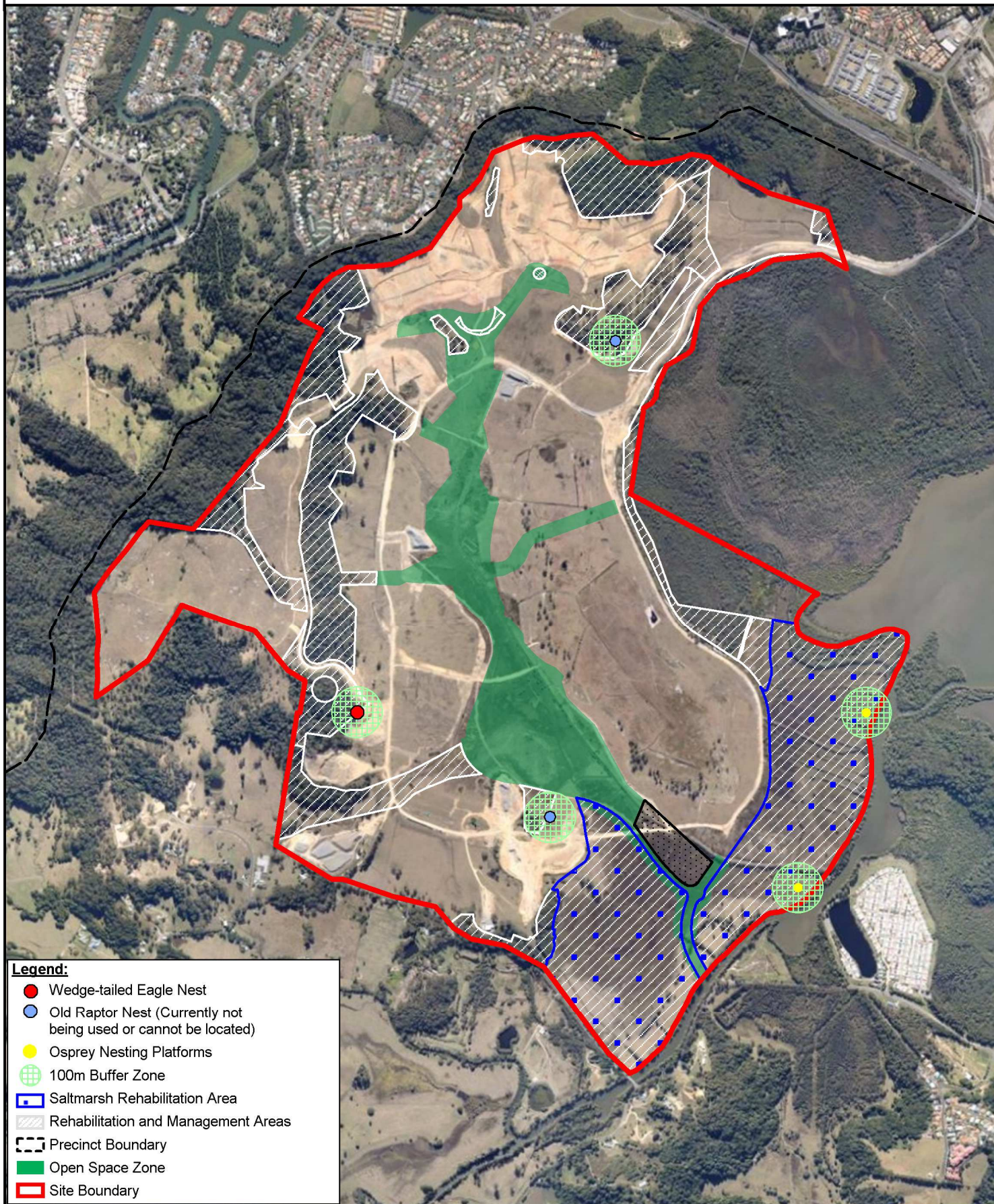


FIGURE 3: Raptor Nesting Platform Locations

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