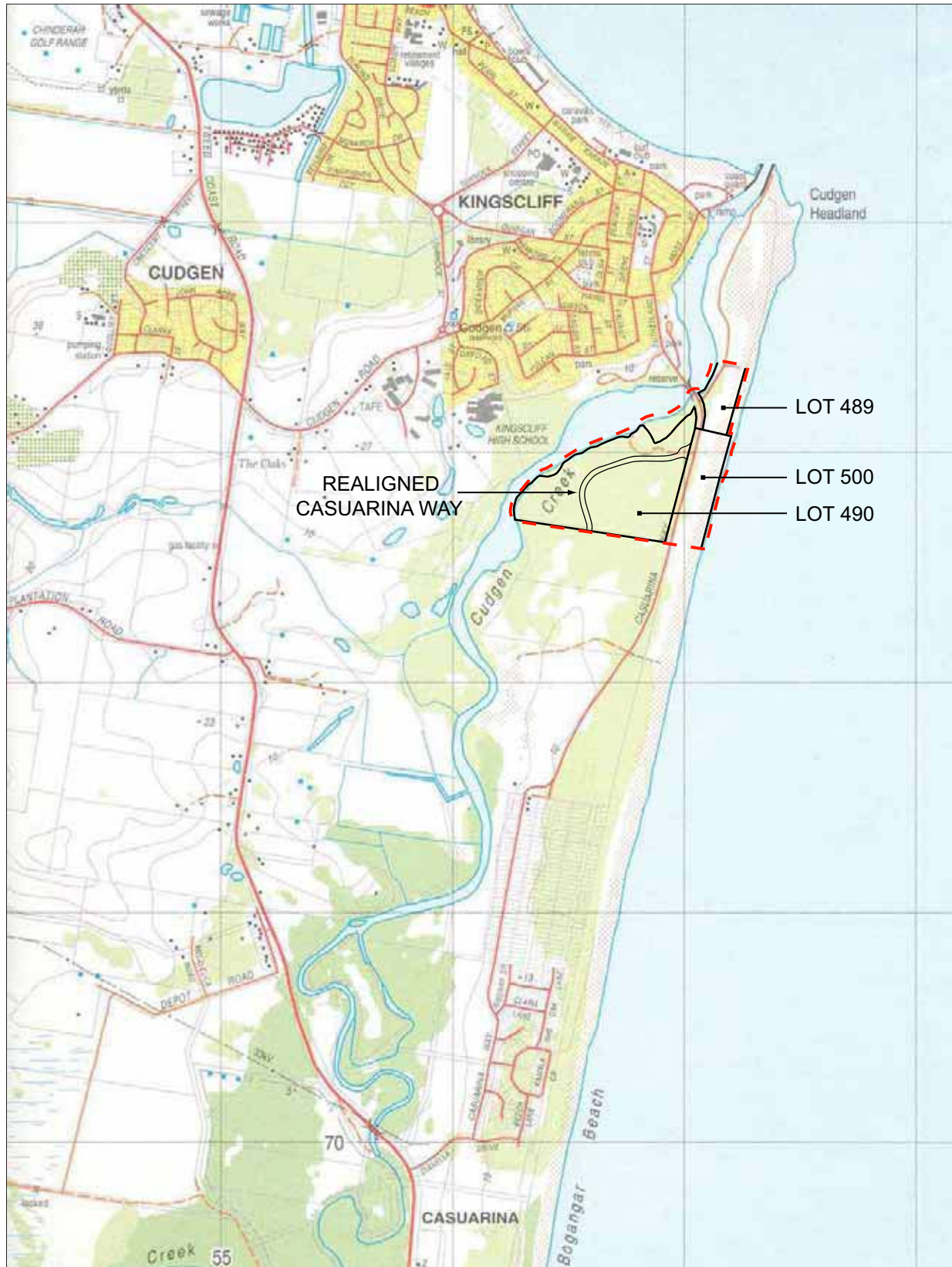


# APPENDIX 1

## FIGURES



- - - - - PLAN OF MANAGEMENT BOUNDARY
- PROPERTY BOUNDARY

CLIENT: Leighton Properties

JOB: Lot 490

DATE: 25/06/2007

SCALE: 1 : 25 000

FILE: 490location

IMS: 490loc

SOURCE: Dept. of Lands

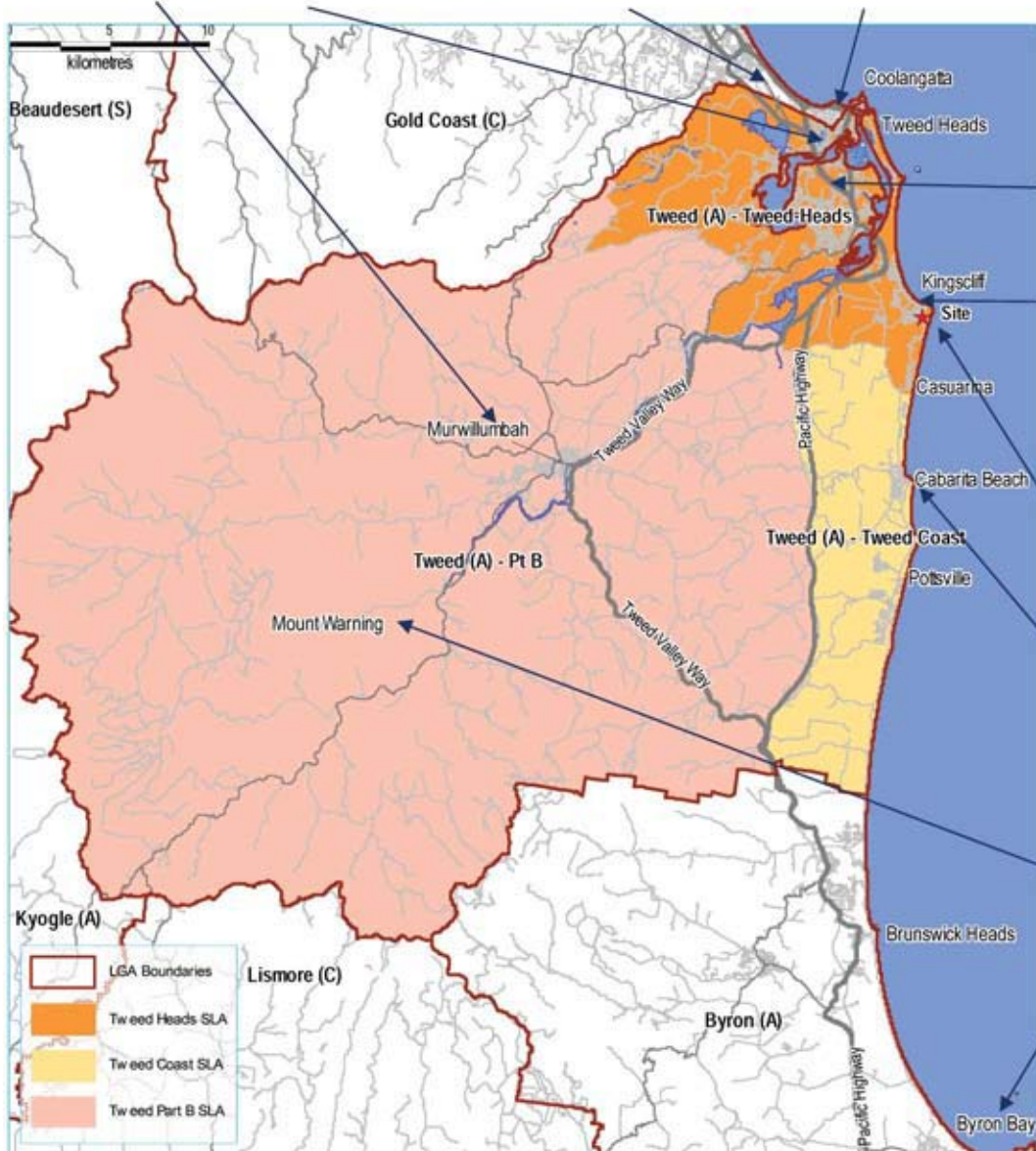


Major hospitals are located in Tweed Heads and Murwillumbah.

The major employment hub of the Tweed LGA is located on the state border in Tweed Heads.

During 2007/08, the Gold Coast Airport serviced over 4.2 million domestic and international passengers. Completion of the \$10 million terminal upgrade is expected in 2010.

A concentrated supply of tourism accommodation and food suppliers, including Twin Towns, are located in Tweed Heads-Coolangatta.



The Tugun Bypass was completed in June 2008, effectively cutting the drive time between SE Qld and Northern NSW by approximately 15 to 30 minutes.

Kingscliff is an establishing tourism destination, located approx. 15 minutes from the Gold Coast Airport, 30 minutes to Byron Bay and 20 minutes to Murwillumbah and Mt Warning.

The subject site is located next to Salt Village, on the Cudgen Creek.

Casuarina, Cabarita Beach and Pottsville are establishing communities along the Tweed Coast, now easily accessible due to the upgrade of the Pacific Highway.

Mount Warning is a dominant tourist attraction of the Tweed LGA.

Byron Bay has become a popular Northern Rivers tourism hub with a concentration of accommodation and tourism suppliers.







AERIAL PHOTOGRAPH VIEWING EAST SHOWING SITE CONTEXT



AERIAL PHOTOGRAPH VIEWING SOUTH EAST SHOWING SITE CONTEXT

**CLIENT:** Leighton Properties

**JOB:** Lot 490

**DATE:** 03/12/2008

**SCALE:** not to scale

**FILE:** 490siteplates

**IMS:** Ivois1,2

**SOURCE:** LVO Architecture



**FIGURE: 4**  
AERIAL PHOTOGRAPH



<b>CLIENT:</b> Leighton Properties	<b>JOB:</b> Lot 490
<b>FILE:</b> 490aerial	<b>IMS:</b> aeriallot490

**JGA** **JIM GLAZEBROOK**  
**& ASSOCIATES** PTY LTD  
ACN 003 836 799  
TOWN PLANNERS & DEVELOPMENT CONSULTANTS

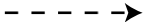



<b>DATE:</b> 02/12/2008	<b>SCALE:</b> 1 : 8000
<b>SOURCE:</b> J.M.A. Architects	

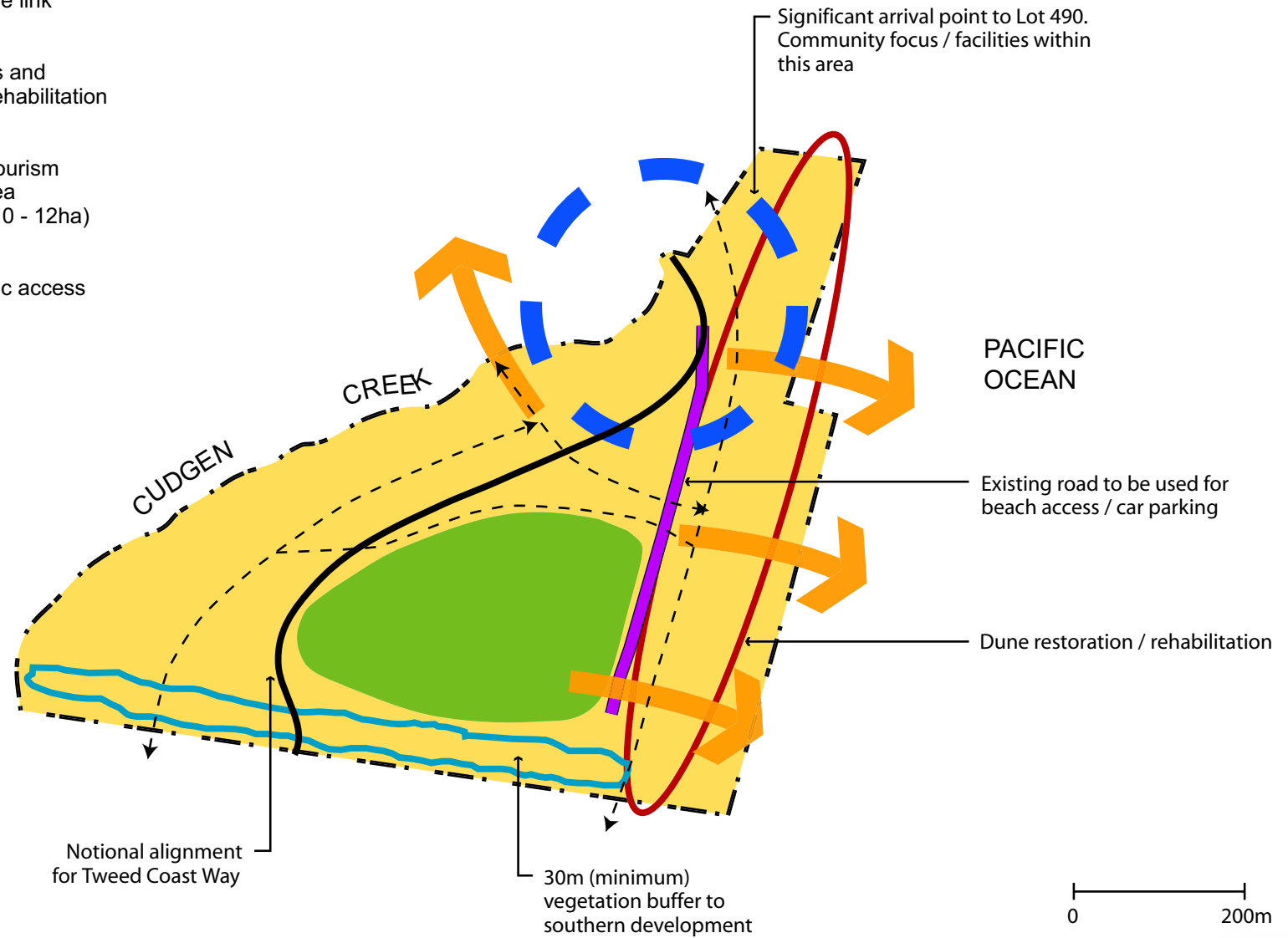


**FIGURE: 5**

DESIGN & MANAGEMENT PRINCIPLES  
- LOT 490 PLAN OF MANAGEMENT

**KEY**

-  Pedestrian / cycle link
-  Community uses and environmental rehabilitation
-  Indicative Eco Tourism development area (approximately 10 - 12ha)
-  Formalised public access



CLIENT: Leighton Properties

JOB: Lot 490

**JGA** JIM GLAZEBROOK  
& ASSOCIATES PTY LTD  
TOWN PLANNERS & DEVELOPMENT CONSULTANTS  
ACN 003 836 799

DATE: 28/02/2007

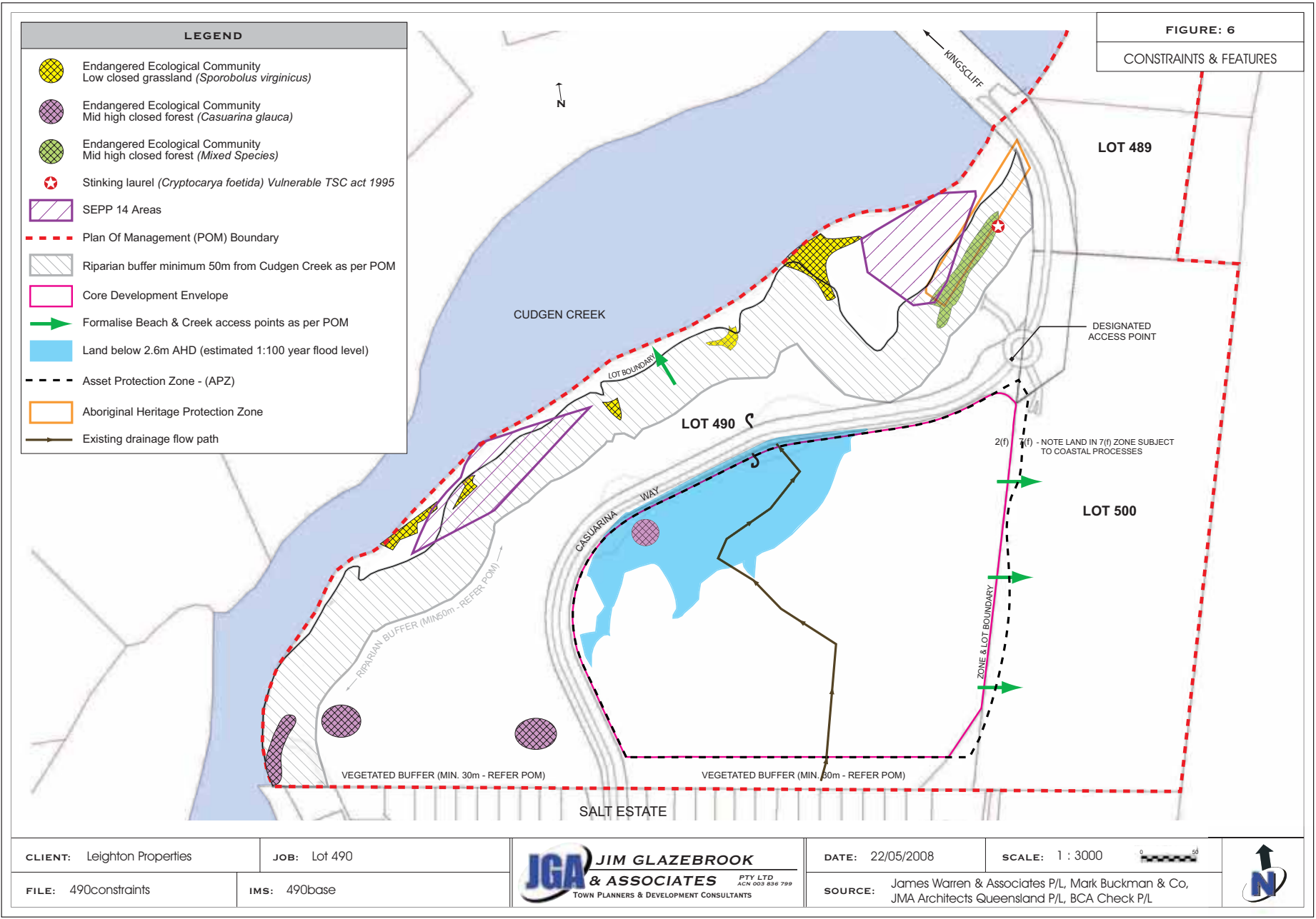
SCALE: as shown

FILE: 490managed

IMS: 490manage

SOURCE: Dept. of lands - Plan of Management





CLIENT: Leighton Properties  
FILE: 490constraints

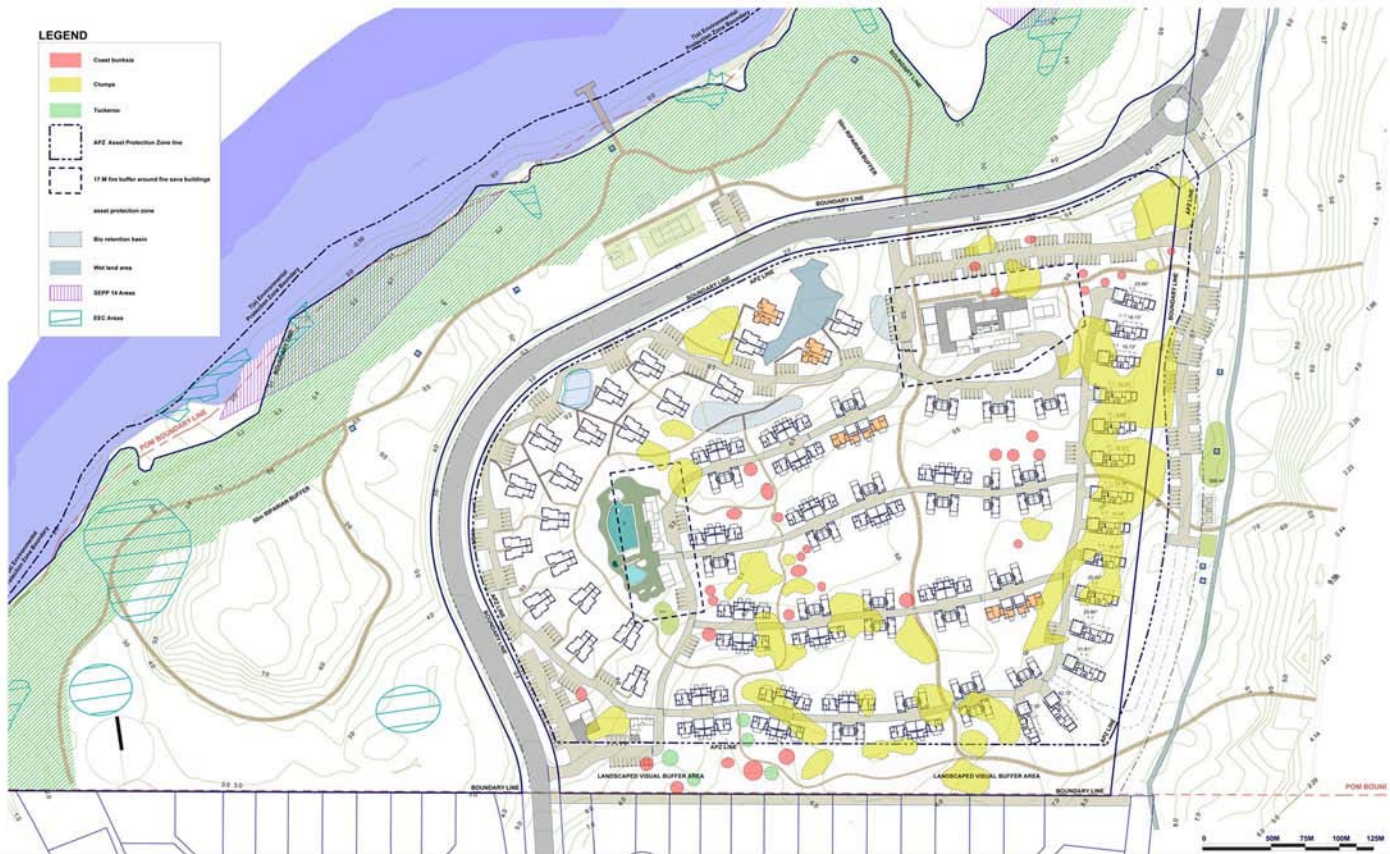
JOB: Lot 490  
IMS: 490base

**JGA JIM GLAZEBROOK & ASSOCIATES**  
PTV LTD  
ACN 003 836 799  
TOWN PLANNERS & DEVELOPMENT CONSULTANTS

DATE: 22/05/2008  
SOURCE: James Warren & Associates P/L, Mark Buckman & Co, JMA Architects Queensland P/L, BCA Check P/L

SCALE: 1 : 3000





CLIENT: Leighton Properties

JOB: Lot 490

**JGA** JIM GLAZBROOK  
 & ASSOCIATES PTY LTD  
 TOWN PLANNERS & DEVELOPMENT CONSULTANTS  
ACN 004 818 728

DATE: 03/12/2008

SCALE: 1 : 2000

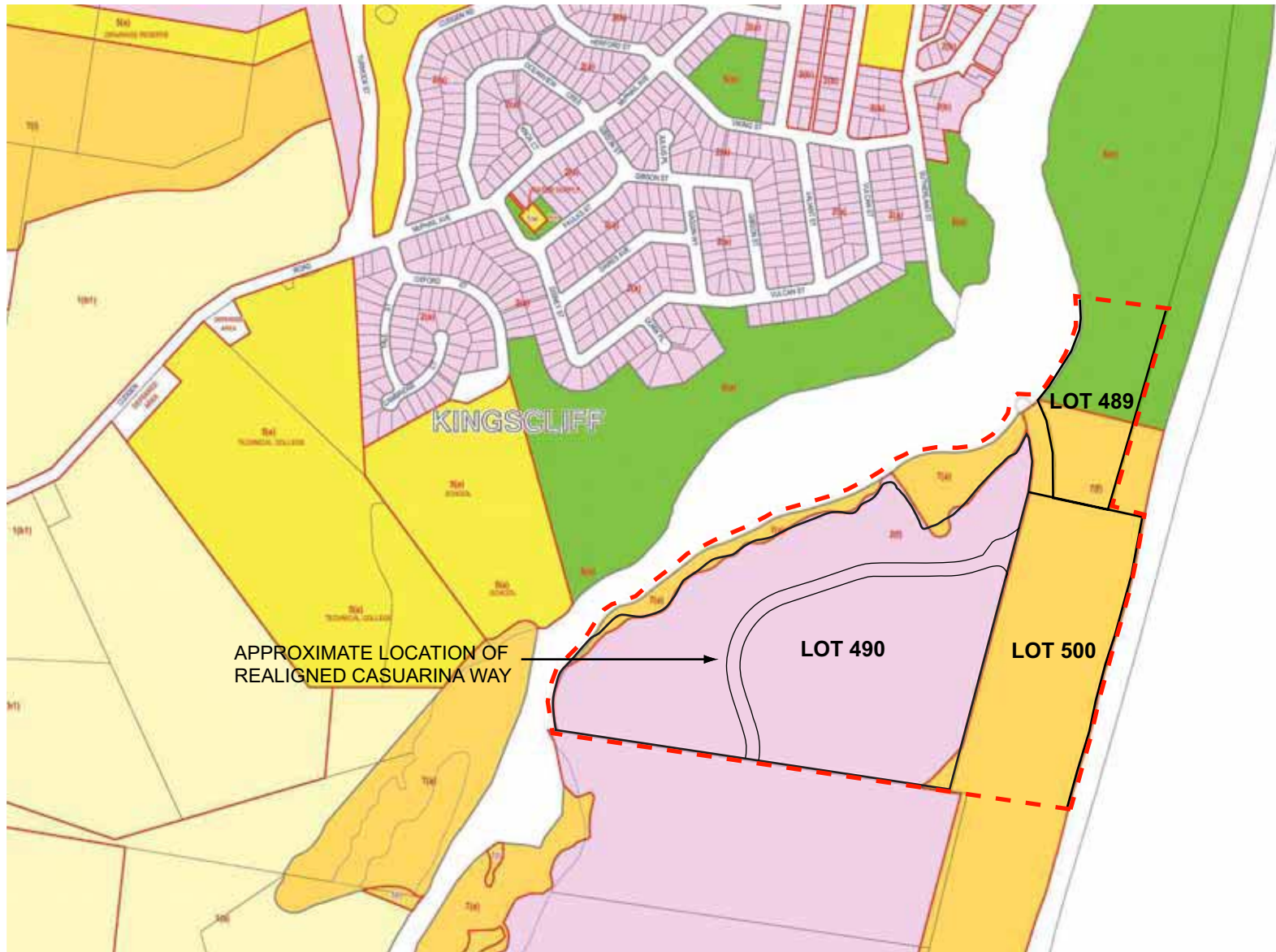
FILE: 490devipmt

IMS: 490constraint

SOURCE: J.M.A. Architects



**FIGURE: 8**  
ZONING EXTRACT



APPROXIMATE LOCATION OF REALIGNED CASUARINA WAY

LOT 490

LOT 500

LOT 489

KINGSCLIFF

 - PLAN OF MANAGEMENT BOUNDARY

**LEGEND**

- I. RURAL**
  -  (a) RURAL LIVING
  -  (b1) AGRICULTURAL PROTECTION
  -  (b2) AGRICULTURAL PROTECTION
  -  (c) RURAL LIVING
- 2. RESIDENTIAL**
  -  (a) LOW DENSITY RESIDENTIAL
  -  (b) MEDIUM DENSITY RESIDENTIAL
  -  (c) URBAN EXPANSION
  -  (d) VILLAGE
  -  (e) RESIDENTIAL TOURIST
  -  (f) TOURISM
- 3. BUSINESS**
  -  (a) SUB-REGIONAL BUSINESS
  -  (b) GENERAL BUSINESS
  -  (c) COMMERCE & TRADE
  -  (d) WATERFRONT ENTERPRISE
  -  (e) SPECIAL TOURIST - (Not Listed in Handbook)
- 4. INDUSTRIAL**
  -  (a) INDUSTRIAL
- 5. SPECIAL USES**
  -  (a) SPECIAL USES - (See Handbook for Specific Special Use Categories)
- 6. OPEN SPACE**
  -  (a) OPEN SPACE
  -  (b) RECREATION
- 7. ENVIRONMENTAL PROTECTION**
  -  (a) ENVIRONMENTAL PROTECTION (Wetlands & Littoral Rainforests)
  -  (b) ENVIRONMENTAL PROTECTION (Scenic / Escarpment)
  -  (c) ENVIRONMENTAL PROTECTION (Coastal Lands)
  -  (d) ENVIRONMENTAL PROTECTION (Habitat)
- 8. NATIONAL PARKS / NATURE RESERVES**
  -  (a) NATIONAL PARKS & NATURE RESERVES
- ADDITIONAL CONTROLS**
  -  CLAUSE 37 (TRANSITION TO LOW CORRIDOR)
  -  CLAUSE 38 (FUTURE BOUNDARY)
  -  CLAUSE 41 (BROOKSIDE COORDINATION AREA)
  -  CLAUSE 52 (RIDGE BEACH / RIDGE FOREST - GEARLY NEFT)
  -  CLAUSE 52 (BLACK ROCKS)
  -  CLAUSE 52 (POTTVILLE)
  -  CLAUSE 52 (GOMERALEEK AND HILL)
  -  CLAUSE 52 (GOMERALEEK)
  -  CLAUSE 52 (WOODS) AND FUTURE DAM AREAS
  -  CLAUSE 53 (SCHEDULE 3 FIELDS)

CLIENT: Leighton Properties

JOB: Lot 490



DATE: 26/06/2007

SCALE: 1 : 5000

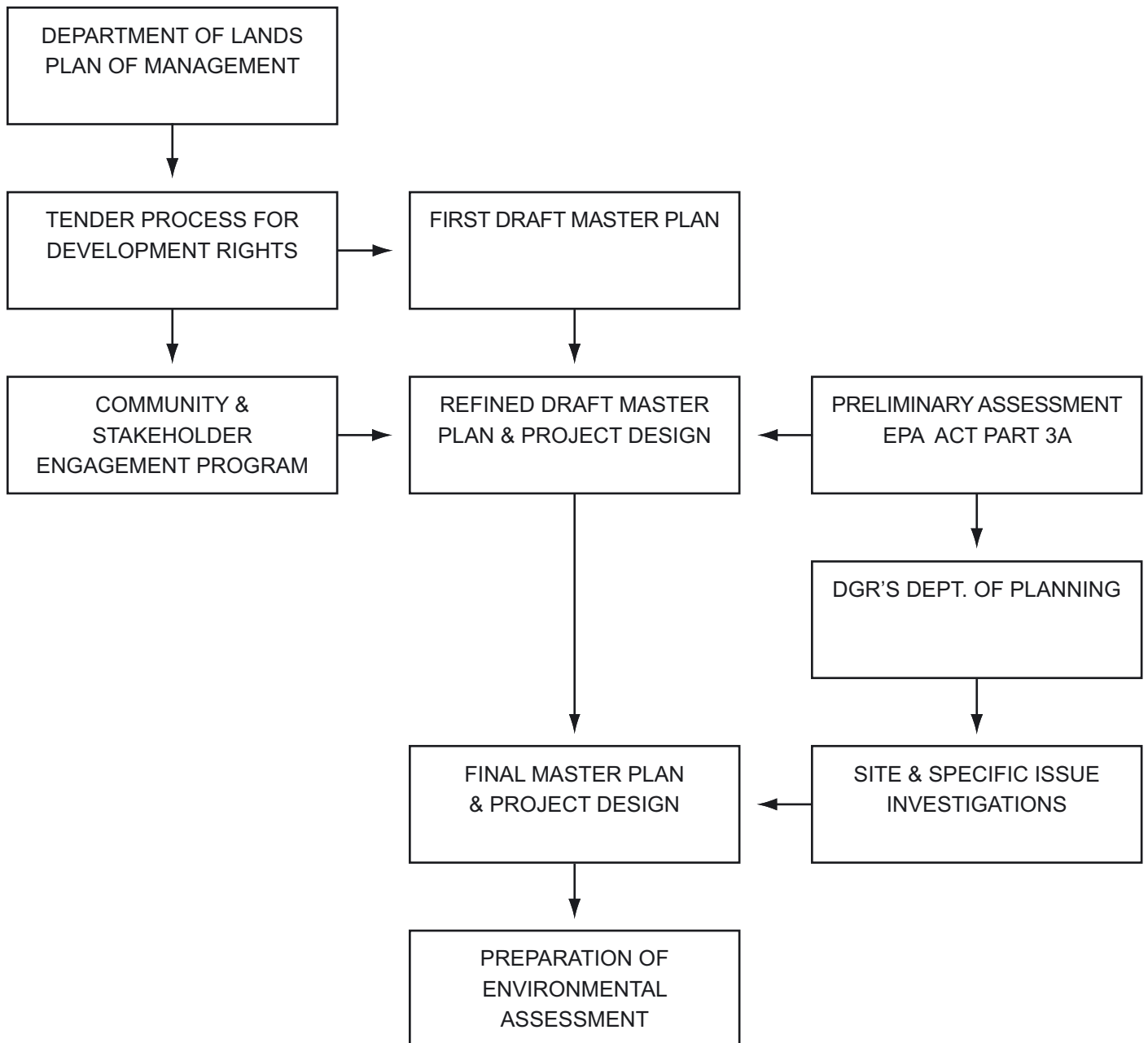
FILE: 490zone

IMS: fil17+fil18

SOURCE: T.S.C.









AERIAL PHOTOGRAPH VIEWING NORTH SHOWING RIPARIAN & ESTUARINE GREENBELT MAINTAINED POST DEVELOPMENT

CLIENT: Leighton Properties

JOB: Lot 490

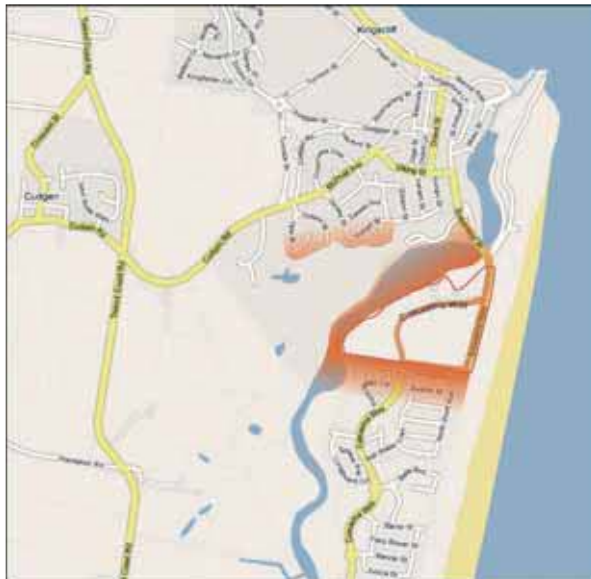
DATE: 05/12/2008

SCALE: not to scale

FILE: 490envcontext

IMS: archreport.490

SOURCE: J.M.A. Architects



SITE VISUAL CATCHMENT



BEFORE - VIEW FROM PP03 BEFORE PROPOSED DEVELOPMENT



PP03 LOCATION



AFTER - VIEW FROM PP03 AFTER PROPOSED DEVELOPMENT

NOTE:

- Photomontages are not survey accurate but are sufficiently accurate to fairly illustrate the proposed development in its context
- Some distortion of photo and model may occur due to merging of photos
- Vegetation shown as per landscape plans prepared by LVO Architecture, and consistent with species of approximately 5 years of growth. Additional growth may result in additional screening effects.

CLIENT: Leighton Properties

JOB: Lot 490



DATE: 02/12/2008

SCALE: not to scale

FILE: 490montageA

IMS: monatge1,visualcatch490

SOURCE: LVO Architecture





SITE VISUAL CATCHMENT



BEFORE - VIEW FROM PP02 BEFORE PROPOSED DEVELOPMENT



PP02 LOCATION



AFTER - VIEW FROM PP02 AFTER PROPOSED DEVELOPMENT

- NOTE:
- Photomontages are not survey accurate but are sufficiently accurate to fairly illustrate the proposed development in its context
  - Some distortion of photo and model may occur due to merging of photos.
  - Vegetation shown as per landscape plans prepared by LVO Architecture, and consistent with species of approximately 5 years of growth. Additional growth may result in additional screening effects.

CLIENT: Leighton Properties

JOB: Lot 490

FILE: 490montageB

IMS: monatge2,visualcatch490



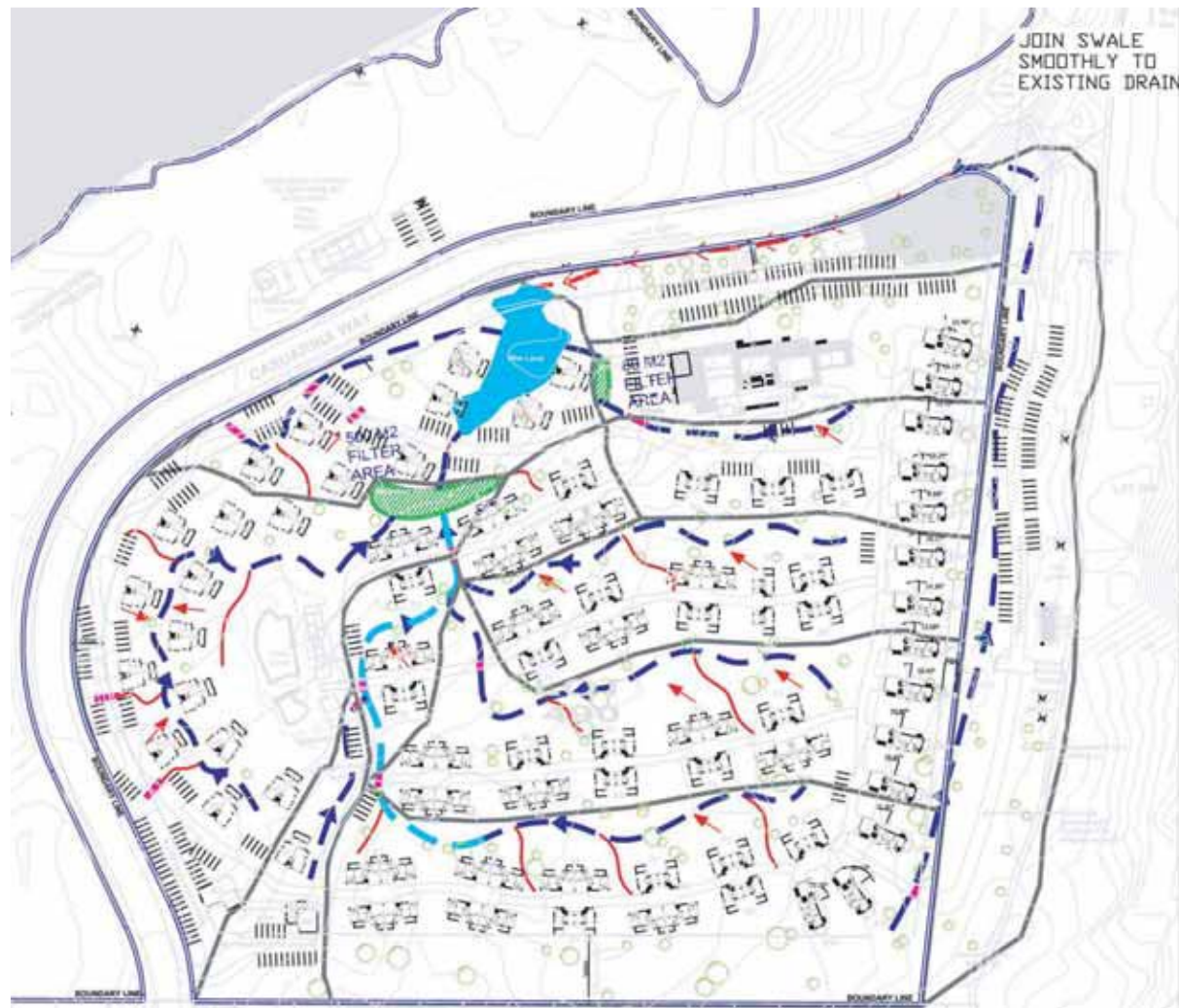
DATE: 02/12/2008

SCALE: not to scale

SOURCE: LVO Architecture



FIGURE: 13  
STORMWATER CONTROL PLAN



**LEGEND**

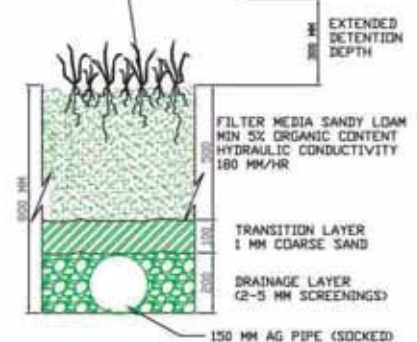
- 0.4 M SWALE DEPTH (SEE DETAIL) ▬▬▬
- 0.6 M SWALE DEPTH (SEE DETAIL) ▬▬▬
- CULVERTS ▬▬▬
- BIORETENTION BASINS ▨▨▨
- SPOON DRAIN (SEE DETAIL) ▬▬▬
- WETLAND ▬▬▬
- EXISTING DRAIN ▬▬▬

**NOTES:**

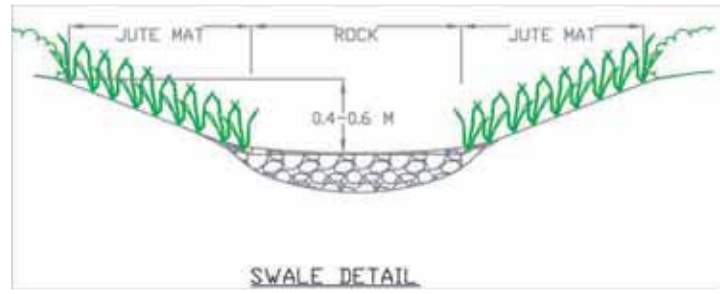
1. FINAL SWALE POSITION IS SUBJECT TO CONFIRMED ARCHITECTURAL LAYOUT & PEDESTRIAN PATH NETWORK.
2. SIZING OF BASINS IS INDICATIVE & SUBJECT TO DETAILED ENGINEERING DESIGN AT OPERATIONAL WORKS STAGE.
3.

DEVELOPMENT TYPE	ROOF AREA m <sup>2</sup>	TRENCH VOLUME REQUIRED m <sup>3</sup>
SMALL POD	100	2.5
MEDIUM POD	150	4
LARGE POD	230	7
COMMERCIAL	2500	88
4. INFILTRATION DRAINAGE MEDIA TO BE COARSE GRAVEL MIN VOIDS 30%

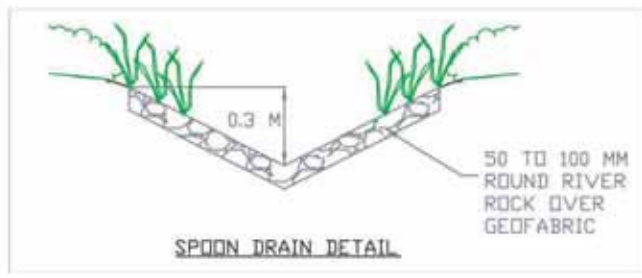
PROVIDE VEGETATION STABILISATION TO BASIN FLOOR IN ACCORDANCE WITH COUNCIL STANDARDS



**BIORETENTION MEDIA CROSS SECTION**



**SWALE DETAIL**



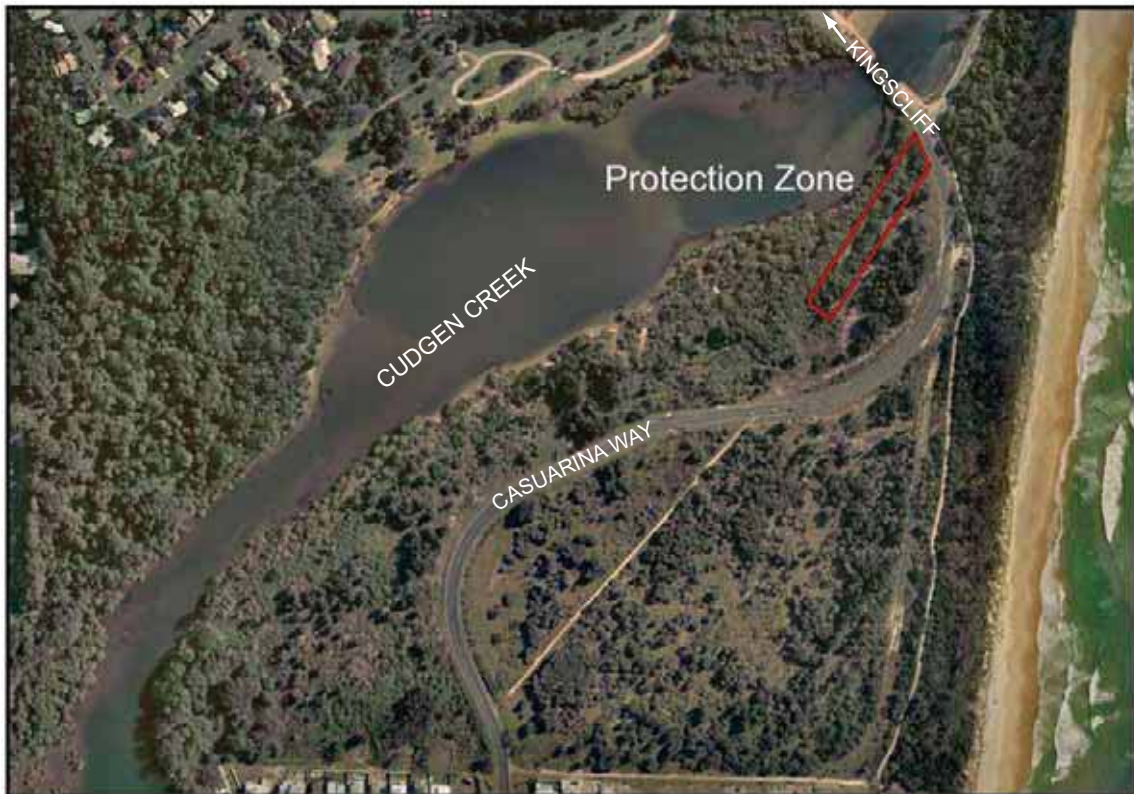
**SPOON DRAIN DETAIL**

CLIENT: Leighton Properties	JOB: Lot 490
FILE: 490stormwater	IMS: stormplan490

**JGA** **JIM GLAZEBROOK**  
**& ASSOCIATES** PTY LTD  
 ACN 003 836 799  
 TOWN PLANNERS & DEVELOPMENT CONSULTANTS

DATE: 03/12/2008	SCALE: as shown
SOURCE: Belleng VDM.	

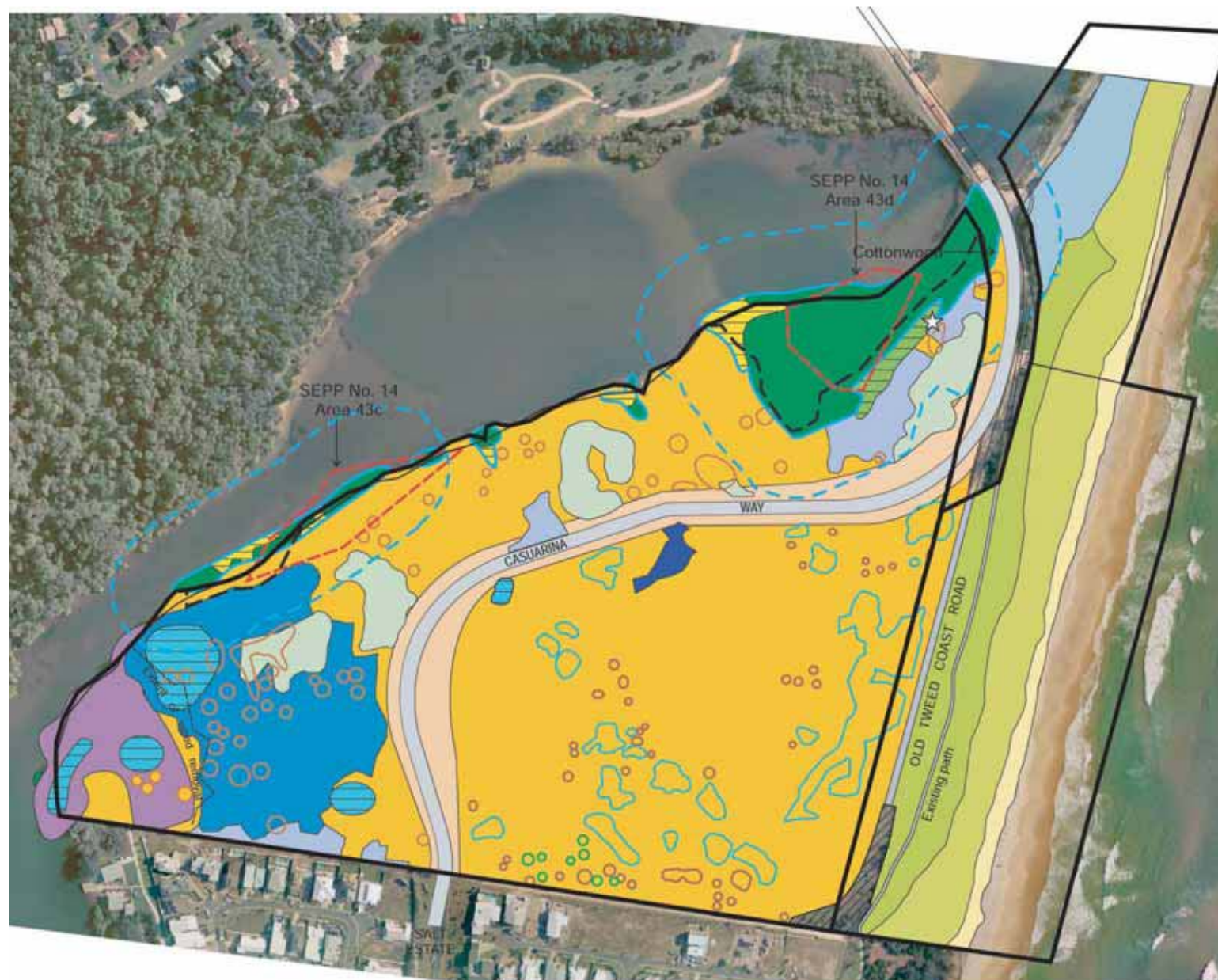




ABORIGINAL PROTECTION ZONE AS IDENTIFIED IN CULTURAL HERITAGE ASSESSMENT

FIGURE: 15

EXISTING SITE VEGETATION



**LEGEND**

- Community 1 - Mid-high closed forest (*Avicennia marina*)
- Community 2 - Mid-high closed forest (Mixed species)
- Community 3 - Mid-high closed forest (*Casuarina glauca*)
- Community 4 - Mid-high open forest (*Banksia integrifolia*)
- Community 5 - Mid-high open woodland (*Banksia integrifolia*, *Lantana camara*, *Leptospermum laevigatum*, *Acacia sophora*, *Macaranga tanarius* +/- Mixed species)
- Community 6 - Mid-high open forest (*Macaranga tanarius*, *Acacia melanoxylon*)
- Community 7 - Low closed shrubland (*Lantana camara*, *Chrysanthemoides monilifera* subsp. *rotundata* & Scattered trees)
- Community 8 - Low closed grassland (*Sporobolus virginicus*)
- Community 9 - Low closed grassland to bare ground (Mixed grass & weed species)
- Community 10 - Mid-high closed forest (Mixed species)
- Community 11 - Mid-high open forest (*Casuarina equisetifolia*)
- Community 12 - Low open forest (*Acacia sophorae* +/- emergent *Casuarina equisetifolia*)
- Community 13 - Low closed grassland (*Spinifex sericeus*)
- Community 14 - Sedgeland (*Phragmites australis*, *Typha orientalis*, *Baumea articulata*)
- Grassed verge
- Area of existing revegetation plantings
- Clumps (mainly *Banksia integrifolia* with occasional *Cupaniopsis anacardioides*)
- Coast banksia (*Banksia integrifolia*)
- Tuckeroo (*Cupaniopsis anacardioides*)
- Stinking laurel (*Cryptocarya foetida*) (Vulnerable, TSC Act 1995)
- Endangered Ecological Community
- Mapped SEPP No. 14 areas
- Ground Truthed Wetland
- Buffer to Wetland (50m)
- Existing Tracks
- Lot Boundary
- Subject Site

CLIENT: Leighton Properties

JOB: Lot 490

FILE: 490VEG

IMS: existingveg490



DATE: 03/12/2008

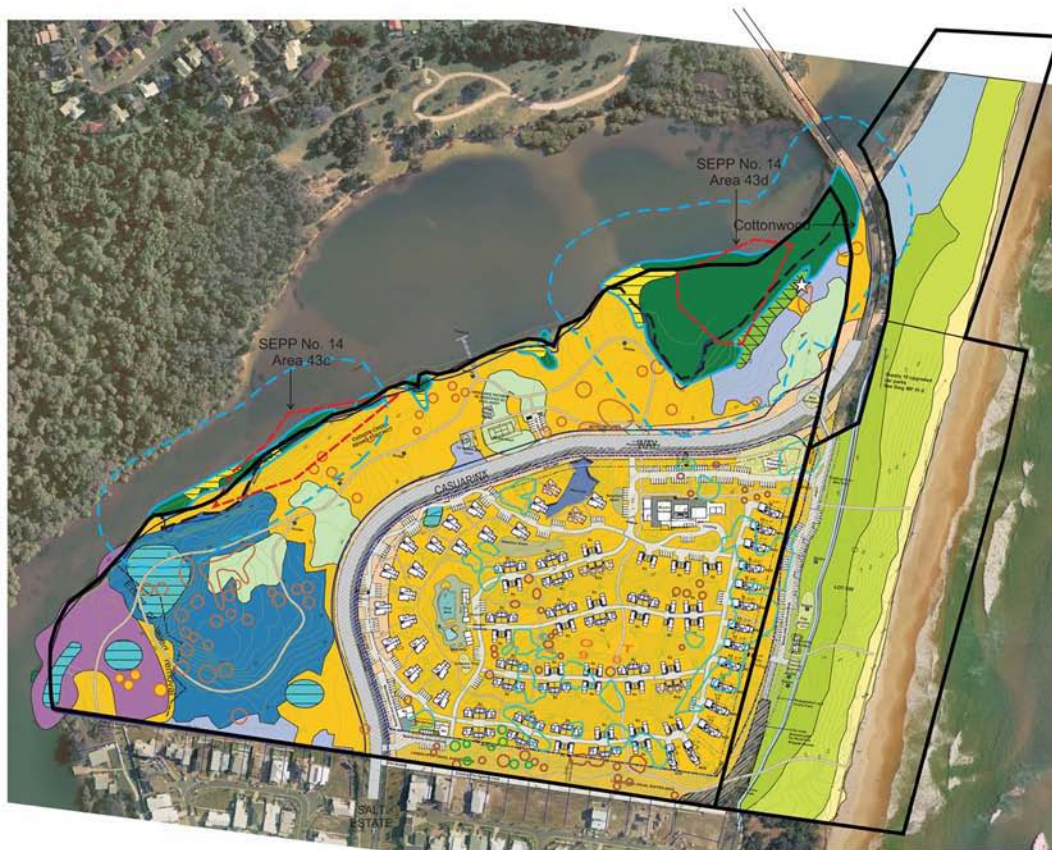
SCALE: 1 : 3500



SOURCE: James Warren & Associates.



DEVELOPMENT OVERLAY & EXISTING SITE VEGETATION



- LEGEND**
- Community 1 - Mid-high closed forest (*Avicennia marina*)
  - Community 2 - Mid-high closed forest (Mixed species)
  - Community 3 - Mid-high closed forest (*Casuarina glauca*)
  - Community 4 - Mid-high open forest (*Banksia integrifolia*)
  - Community 5 - Mid-high open woodland (*Banksia integrifolia*, *Lantana camara*, *Leptospermum laevigatum*, *Acacia sophora*, *Macaranga tanarius* +/- Mixed species)
  - Community 6 - Mid-high open forest (*Macaranga tanarius*, *Acacia melanoxylon*)
  - Community 7 - Low closed shrubland (*Lantana camara*, *Chrysanthemoides monilifera* subsp. *rotundata* & Scattered trees)
  - Community 8 - Low closed grassland (*Sporobolus virginicus*)
  - Community 9 - Low closed grassland to bare ground (Mixed grass & weed species)
  - Community 10 - Mid-high closed forest (Mixed species)
  - Community 11 - Mid-high open forest (*Casuarina equisetifolia*)
  - Community 12 - Low open forest (*Acacia sophorae* +/- emergent *Casuarina equisetifolia*)
  - Community 13 - Low closed grassland (*Spinifex sericeus*)
  - Community 14 - Sedgeland (*Phragmites australis*, *Typha orientalis*, *Baumea articulata*)
  - Grassed verge
  - Area of existing revegetation plantings
  - Clumps (mainly *Banksia integrifolia* with occasional *Cupaniopsis anacardioides*)
  - Coast banksia (*Banksia integrifolia*)
  - Tuckeroo (*Cupaniopsis anacardioides*)
  - Stinking laurel (*Cryptocarya foetida*) (Vulnerable, TSC Act 1995)
  - Endangered Ecological Community
  - Mapped SEPP No. 14 areas
  - Ground Truthed Wetland
  - Buffer to Wetland (50m)
  - Potential Roost Habitat for Common blossom bat
  - Existing Tracks
  - Lot Boundary
  - Subject Site

CLIENT: Leighton Properties

JOB: Lot 490

FILE: 490VEGdev

IMS: developveg490

**JGA** JIM GLAZEBROOK & ASSOCIATES  
 PTY LTD  
 ACN 003 838 798  
 TOWN PLANNERS & DEVELOPMENT CONSULTANTS

DATE: 03/12/2008

SCALE: 1 : 3500



SOURCE: James Warren & Associates.

