



WorleyParsons

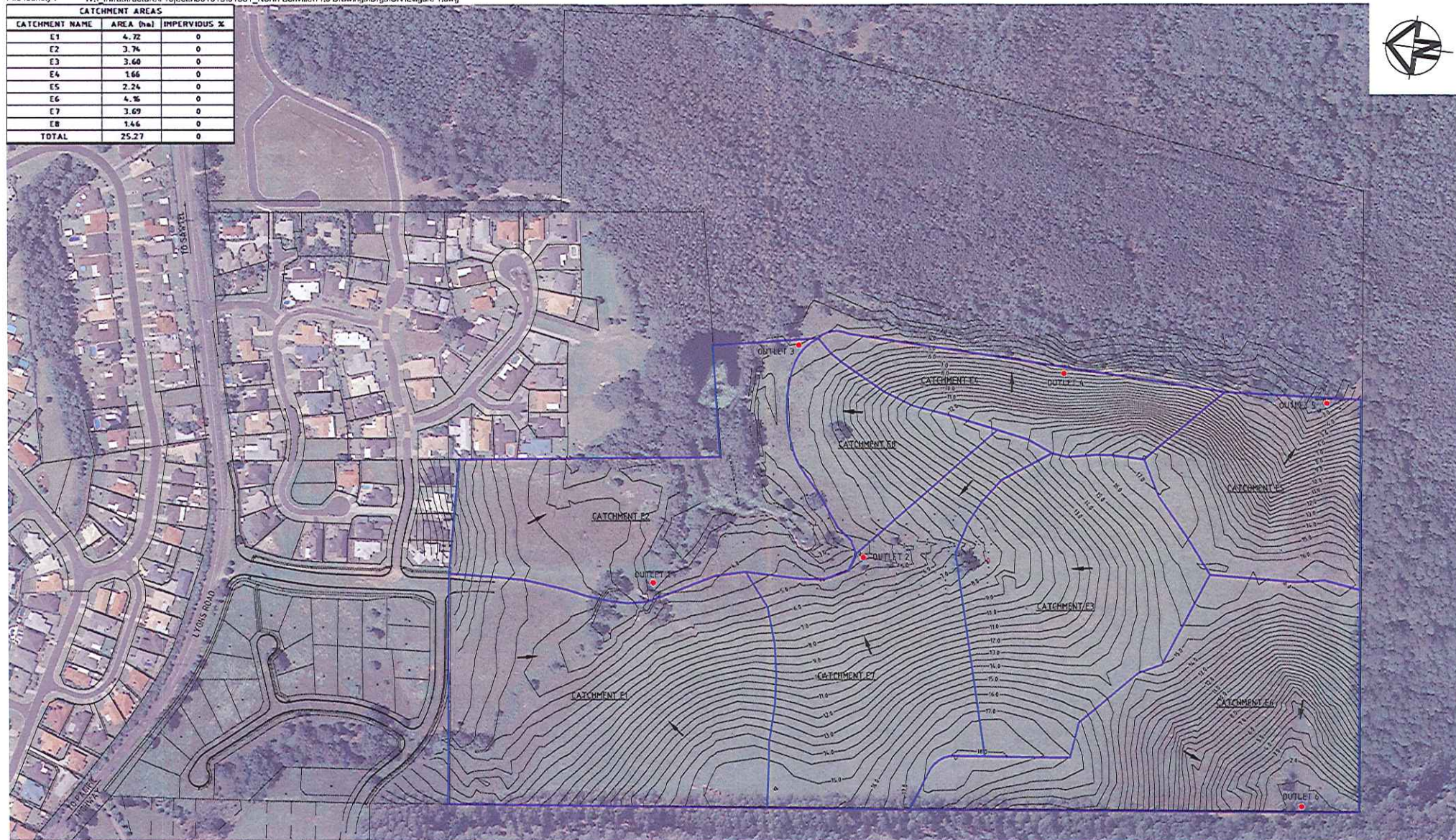
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EcoNomics

UTILA PTY LTD
NORTH BONVILLE
STORMWATER MANAGEMENT STRATEGY

Appendix 2 - FIGURES

CATCHMENT AREAS		
CATCHMENT NAME	AREA (ha)	IMPERVIOUS %
E1	4.72	0
E2	3.74	0
E3	3.60	0
E4	1.66	0
E5	2.24	0
E6	4.16	0
E7	3.69	0
E8	1.46	0
TOTAL	25.27	0



NOTES:

1. AERIAL SOURCE OF COFFS CITY HARBOUR COUNCIL.
2. CONTOURS PROVIDED BY GEOFF SLATTERY AND ASSOCIATES.

LEGEND

- EXISTING CATCHMENT BOUNDARY
- OUTLET POINTS
- EXISTING CONTOUR (0.5m INTERVAL)
- DIRECTION OF OVERLAND FLOW
- SITE BOUNDARY

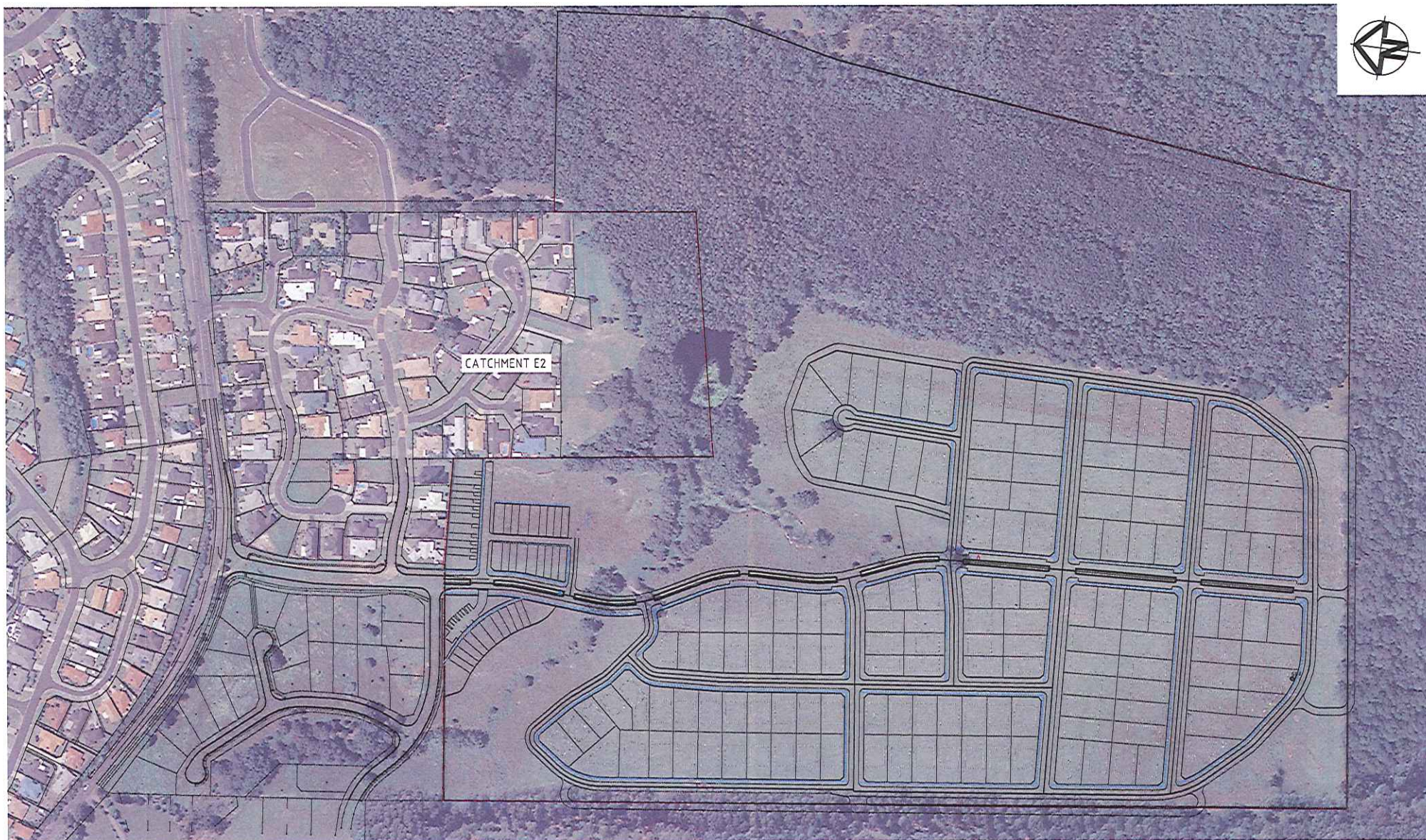
0 30 60 90 120 150m
1:1500 (A1) 1:3000 (A3)

A		18/5/18	ISSUED FOR REVIEW
ISSUE	DATE		ISSUE DESCRIPTION

Source :

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0 30 60 90 120 150m
1: 1500 (A1) 1: 3000 (A3)

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CATCHMENT AREAS			BIO-RETENTION BASINS					
CATCHMENT NAME	AREA (ha)	IMPERVIOUS %	DEVICE	EXTENDED DIVERSION DEPTH	SURFACE AREA (m ²)	SEEPAGE (mm/hr)	FILTER AREA (m ²)	FILTER DEPTH (m)
P1A	0.97	60.3	BIO-RETENTION BASIN 1	0.30	400	0	200	1
P1B	0.99	0						
P1C	0.68	59.9						
P1D	1.34	59.9						
P1E	1.99	59.8						
P2A	0.88	59.8						
P2B	0.91	60.2	BIO-RETENTION BASIN 2	0.30	600	0	300	1
P2C	2.26	60.3	BIO-RETENTION BASIN 3	0.30	1300	0	650	1
P2D	1.57	60.2	BIO-RETENTION BASIN 4	0.30	300	0	50	1
P3A	1.08	60	BIO-RETENTION BASIN 5	0.30	500	0	250	1
P3B	3.15	0	BIO-RETENTION BASIN 6	0.30	600	0	300	1
P3C	1.15	60.3						
P4	1.86	59.8						
P5A	1.61	60.1						
P5B	0.64	0						
P6A	2.76	60.2						
P6B	1.39	0						
TOTAL	25.23							



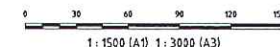
NOTES:

- THE LOCATION AND EXTENT OF TREATMENT MEASURES ARE INDICATIVE ONLY.
- ALL LOTS TO HAVE A SKL RAINWATER TANK PLUMBED TO TOILETS, WASHING MACHINES AND OUTDOOR IRRIGATION.

LEGEND

- 10.0— EXISTING CONTOUR (0.5m INTERVAL)
- SITE BOUNDARY
- +17.5 SPOT HEIGHT
- SUB-CATCHMENT BOUNDARY

- BIORETENTION SWALE WIDTH 5m PSL 1m ABOVE GROUND WATER LEVEL. REFER FIGURE 4 FOR DETAIL
- BIORETENTION BASIN PSL 1m ABOVE GROUND WATER LEVEL. REFER FIGURE 4 AND TABLE FOR DETAIL
- OUTLET POINTS
- DIRECTION OF OVERLAND FLOW
- GPT (GROSS POLLUTANT TRAP) CDS OR APPROVED EQUIVALENT

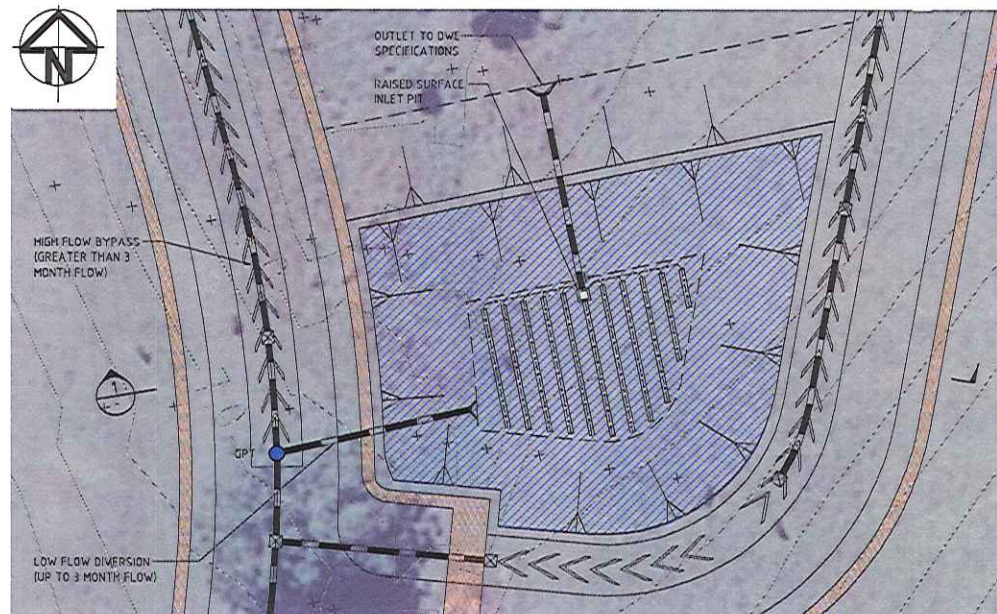


ISSUE	DATE	ISSUE DESCRIPTION
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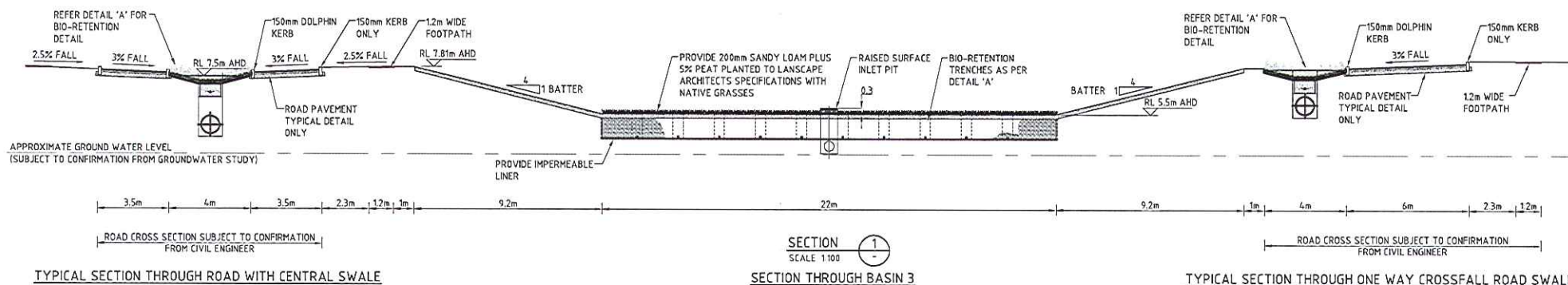
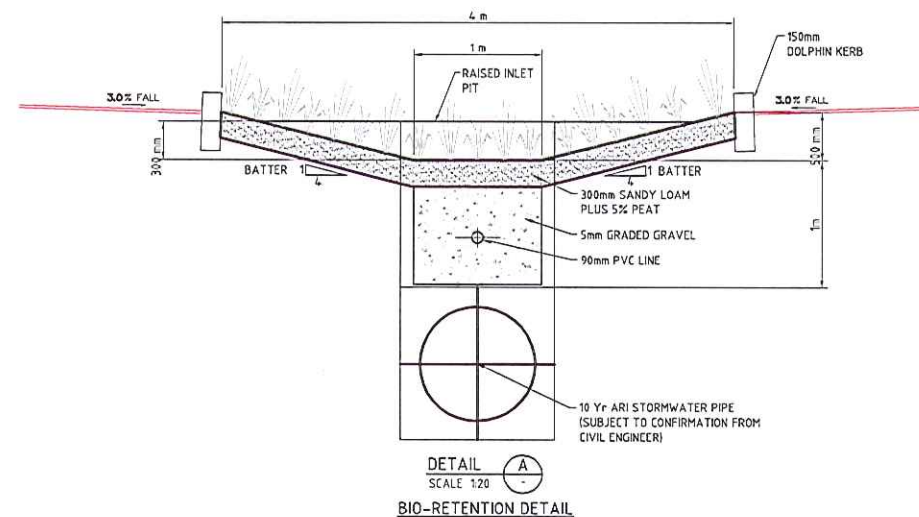
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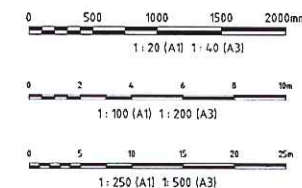


INSET A
SCALE 1:250
GENERAL ARRANGEMENT BIO-RETENTION BASIN 3



LEGEND

- 10.0 — EXISTING CONTOUR (0.5m INTERVAL)
- SITE BOUNDARY
- +17.5 EXISTING SPOT HEIGHT
- GPT (GROSS POLLUTANT TRAP)
- ==== BIO-RETENTION SWALE WIDTH 5m PSL 1m ABOVE GROUND WATER LEVEL.
- ==== BIO-RETENTION BASIN PSL 1m ABOVE GROUND WATER LEVEL.
- DIRECTION OF OVERLAND FLOW
- PROPOSED FOOT PATH



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OneWay
TO ZERO EMISSIONS

ISSUE	DATE	ISSUED FOR REVIEW	ISSUE DESCRIPTION
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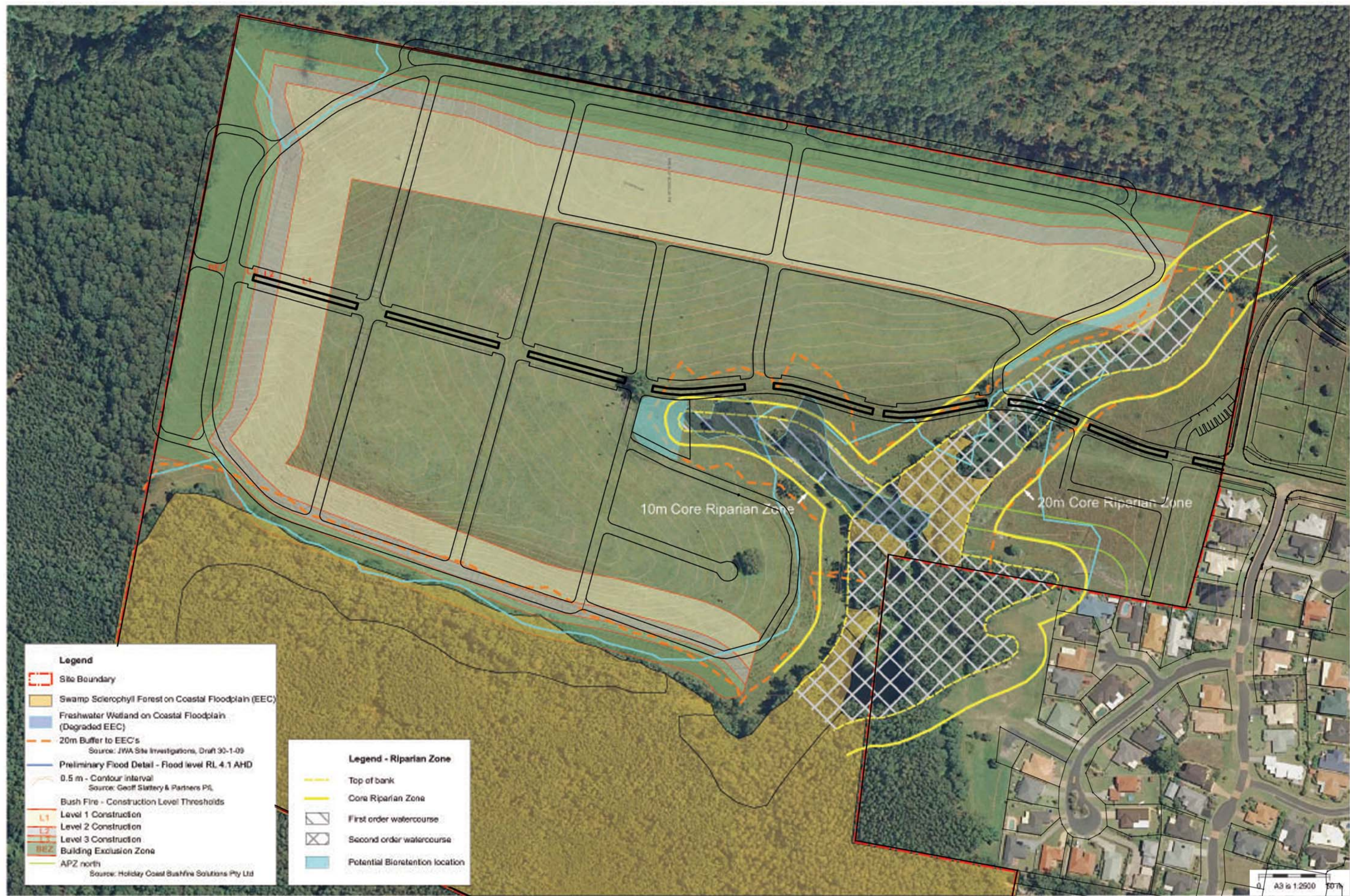
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**PROPOSED STORMWATER
MANAGEMENT DETAILS**

FIGURE 4



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OneWay
to zero harm

Issue	Date	Issue Description

Source:

File Identity: 301015/01381_FIG5_LyonsRdProp
SubdivisionConstraints.jpg

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NORTH

North Bonville
Lyons Road - Proposed Subdivision
Constraints

FIGURE 5



8



9



10



11



12



13



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OneWay
to zero harm

Issue	Date	Issue Description

Source:

File Identity: 301015/01381_FIG6_SitePhotograph

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**North Bonville
Site Photographs**

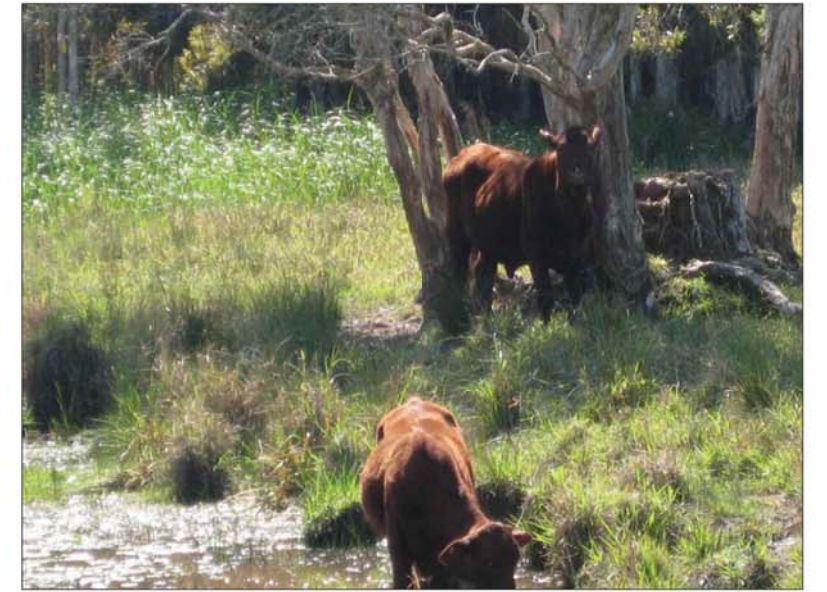
FIGURE 6



1



2



3



4



5



6



7



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OneWay
to zero harm

Issue	Date	Issue Description

Source:

File Identity: 301015/01381_FIG7_SitePhotograph

Date Modified: 13/5/2010



North Bonville
Site Photographs

FIGURE 7