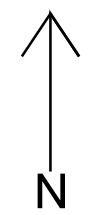


- LEGEND:**
- 18.13% AEP (5 YEAR ARI) FLOOD LEVEL
 - 1% AEP (100 YEAR ARI) FLOOD LEVEL
 - INTERNAL CATCHMENT BOUNDARY
 - INNER 50% RIPARIAN ZONE

SCALE: 0 20 100 200m



| | | | |
|-------------------|----|-----------------|--|
| DRAFT FOR COMMENT | | 11 OCTOBER 2017 | |
| REVISION | BY | DATE | |
| 1 | | | |
| 2 | | | |



| | | | |
|---------------|-------------|-----------|---|
| DESIGNED | Michael Mag | PLAN REF. | # |
| CHECKED | Valerie Mag | | |
| AUTHORISED BY | | | |

Website: www.stormywater.com.au
 Email: stormywater@optusnet.com.au
 Phone: (03) 8555 9669
 ABN: 95 656 703 998

WALLACIA CEMETERY
 STORMWATER MANAGEMENT PLAN
 OVERVIEW

| |
|------------------------|
| SCALE: AS SHOWN |
| SHEET 1 OF 8 |
| DRAWING No. 1774/SWS/1 |

LEGEND:

- NORMAL WATER LEVEL = 35.2 m AHD
- TOP OF EXTENDED DETENTION = 35.7 m AHD
- APPROXIMATE CUTLINE
- 42.5 EXISTING SITE CONTOURS
- JERRY CREEK 1% AEP EXTENT
- JERRY CREEK 18.13% AEP EXTENT
- 20m RIPARIAN ZONE OFFSET FROM THE JERRY CREEK TOP OF BANK
- EXISTING TREE

**TED 35.7 m AHD,
740 m²**

**MIN. CUT LINE (ON
DOWNSLOPE OF
SYSTEM) = 36.0 m AHD**

**JERRY CREEK - 18.13%
AEP FLOOD EXTENT**

WETLAND 1A

**NWL
35.2 m AHD,
450 m²**

**OUTLET PIPE
(TO BE DESIGNED AS PER
REQUIREMENTS IN OCTOBER
2017 SWMP REPORT)**

**JERRY CREEK - 1%
AEP FLOOD EXTENT**

**20 m RIPARIAN ZONE
OFFSET FROM TOP OF
BANK OF JERRY'S CREEK**

CUTLINE

1 IN 3
BATTERS

1 IN 5
BATTERS

43.0
42.5
42.0
41.5
41.0
40.5
40.0
39.5
39.0

SCALE: 0 2 10 20m



| | |
|-------------------|-----------------|
| DRAFT FOR COMMENT | 11 OCTOBER 2017 |
| | |
| | |
| REVISION | DATE |



| | | | |
|---------------|-------------|-----------|---|
| DESIGNED | Michael Mag | PLAN REF. | # |
| CHECKED | Valerie Mag | | |
| AUTHORISED BY | | | |

Website: www.stormywater.com.au
 Email: stormywater@optusnet.com.au
 Phone: (03) 8555 9669
 ABN: 95 656 703 998

WALLACIA CEMETERY
 STORMWATER MANAGEMENT PLAN
 WETLAND 1A
 CONCEPT DESIGN

| |
|---------------------------|
| SCALE: AS SHOWN |
| SHEET 2 OF 8 |
| DRAWING No. 1774/SWS/2 |

LEGEND:

- NORMAL WATER LEVEL = 33.5 m AHD
- TOP OF EXTENDED DETENTION = 34.0 m AHD
- APPROXIMATE CUTLINE
- 36.5 EXISTING SITE CONTOURS
- JERRY CREEK 1% AEP EXTENT
- JERRY CREEK 18.13% AEP EXTENT
- 20m RIPARIAN ZONE OFFSET FROM THE JERRY CREEK TOP OF BANK
- EXISTING TREE

MIN. CUT LINE (ON
DOWNSLOPE OF
SYSTEM) = 34.5 m AHD

OUTLET PIPE
(TO BE DESIGNED AS
PER REQUIREMENTS IN
OCTOBER 2017 SWMP
REPORT)

TED 34.0 m
AHD, 905 m²

WETLAND /
RETARDING
BASIN - 1B

INLET PIPE

GPT - ROCLA CDS 0708M
(OR EQUIVALENT)

NWL
33.5 m AHD,
570 m²

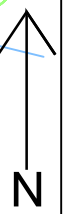
CUTLINE

20 m RIPARIAN ZONE
OFFSET FROM TOP OF
BANK OF JERRYS CREEK

JERRY CK - 1% AEP
FLOOD EXTENT

JERRY CK - 18.13% AEP
FLOOD EXTENT

SCALE: 0 2 10 20m



| | | | |
|-------------------|------|-----------------|--|
| DRAFT FOR COMMENT | | 11 OCTOBER 2017 | |
| REVISION | DATE | | |



| | | | |
|---------------|-------------|-----------|---|
| DESIGNED | Michael Mag | PLAN REF. | # |
| CHECKED | Valerie Mag | | |
| AUTHORISED BY | | | |

Website: www.stormywater.com.au
 Email: stormywater@optusnet.com.au
 Phone: (03) 8555 9669
 ABN: 95 656 703 998

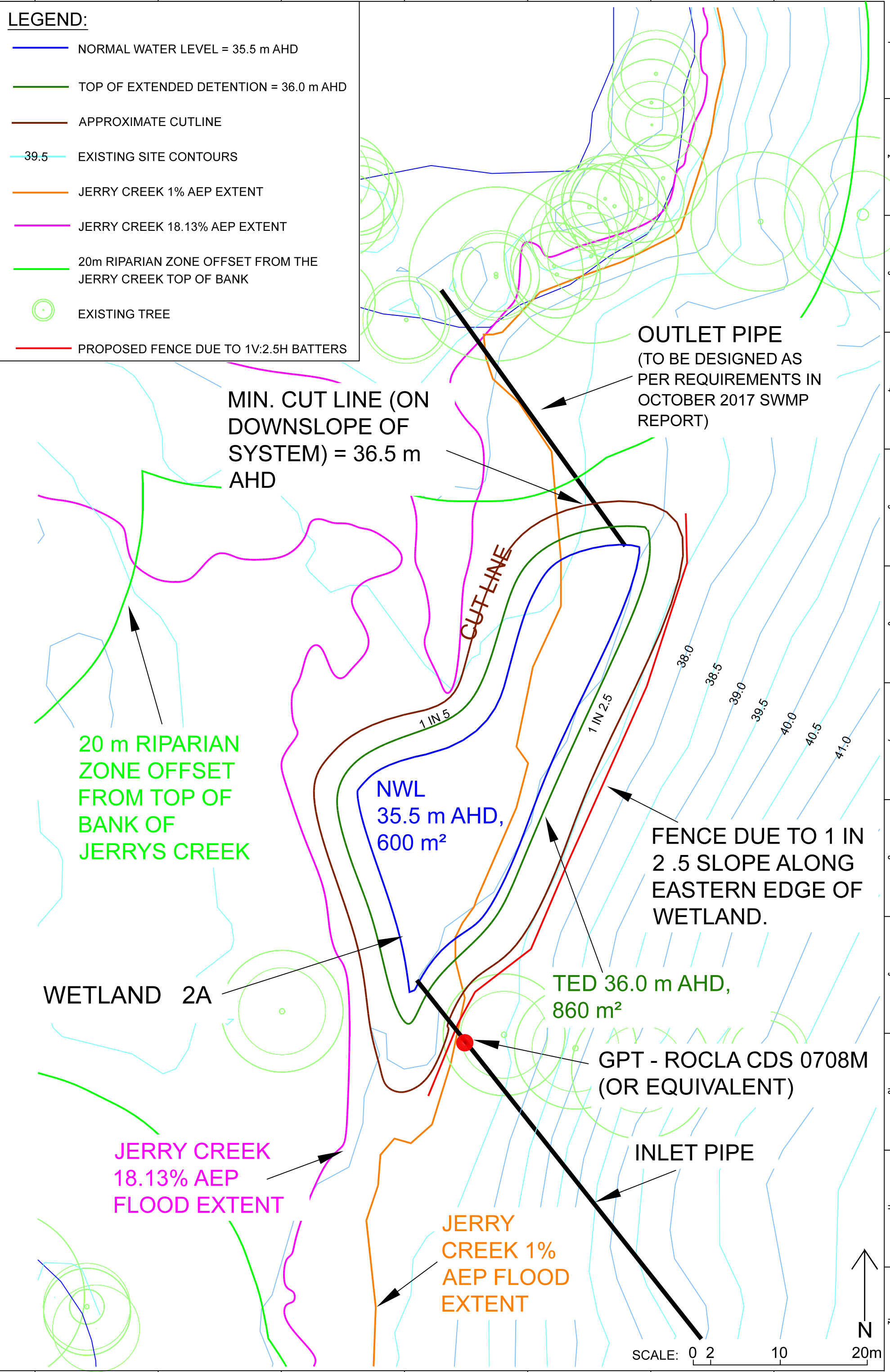
WALLACIA CEMETERY
 STORMWATER MANAGEMENT PLAN
 WETLAND/RETARDING BASIN 1B
 CONCEPT DESIGN

| |
|------------------------|
| SCALE: AS SHOWN |
| SHEET 3 OF 8 |
| DRAWING No. 1774/SWS/3 |

LEGEND:

- NORMAL WATER LEVEL = 35.5 m AHD
- TOP OF EXTENDED DETENTION = 36.0 m AHD
- APPROXIMATE CUTLINE
- 39.5 EXISTING SITE CONTOURS
- JERRY CREEK 1% AEP EXTENT
- JERRY CREEK 18.13% AEP EXTENT
- 20m RIPARIAN ZONE OFFSET FROM THE JERRY CREEK TOP OF BANK
- EXISTING TREE
- PROPOSED FENCE DUE TO 1V:2.5H BATTERS

| | | | | | | | | | | | | | | | | | | | |
|-------------------|--|------|--|-----------------|--|---------|--|-------------|--|-----------|--|-------------|--|---|--|----------------------------|--|-----------------|--|
| REVISION | | DATE | | DESIGNED | | CHECKED | | AUTHORISED | | PLAN REF. | | # | | Website: www.stormywater.com.au | | WALLACIA CEMETERY | | SCALE: AS SHOWN | |
| 1 | | | | | | | | | | | | | | Email: stormywater@optusnet.com.au | | STORMWATER MANAGEMENT PLAN | | SHEET 4 OF 8 | |
| 2 | | | | | | | | | | | | | | Phone: (03) 8555 9669 | | WETLAND 2A | | DRAWING No. | |
| 3 | | | | | | | | | | | | | | ABN: 95 656 703 998 | | CONCEPT DESIGN | | 1774/SWS/4 | |
| DRAFT FOR COMMENT | | | | 11 OCTOBER 2017 | | | | Michael Mag | | | | Valerie Mag | | | | Stormy Water Solutions | | | |



OUTLET PIPE
(TO BE DESIGNED AS PER REQUIREMENTS IN OCTOBER 2017 SWMP REPORT)

MIN. CUT LINE (ON DOWNSLOPE OF SYSTEM) = 36.5 m AHD

20 m RIPARIAN ZONE OFFSET FROM TOP OF BANK OF JERRYS CREEK

NWL 35.5 m AHD, 600 m²

TED 36.0 m AHD, 860 m²

FENCE DUE TO 1 IN 2.5 SLOPE ALONG EASTERN EDGE OF WETLAND.

WETLAND 2A

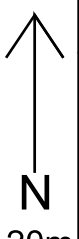
GPT - ROCLA CDS 0708M (OR EQUIVALENT)

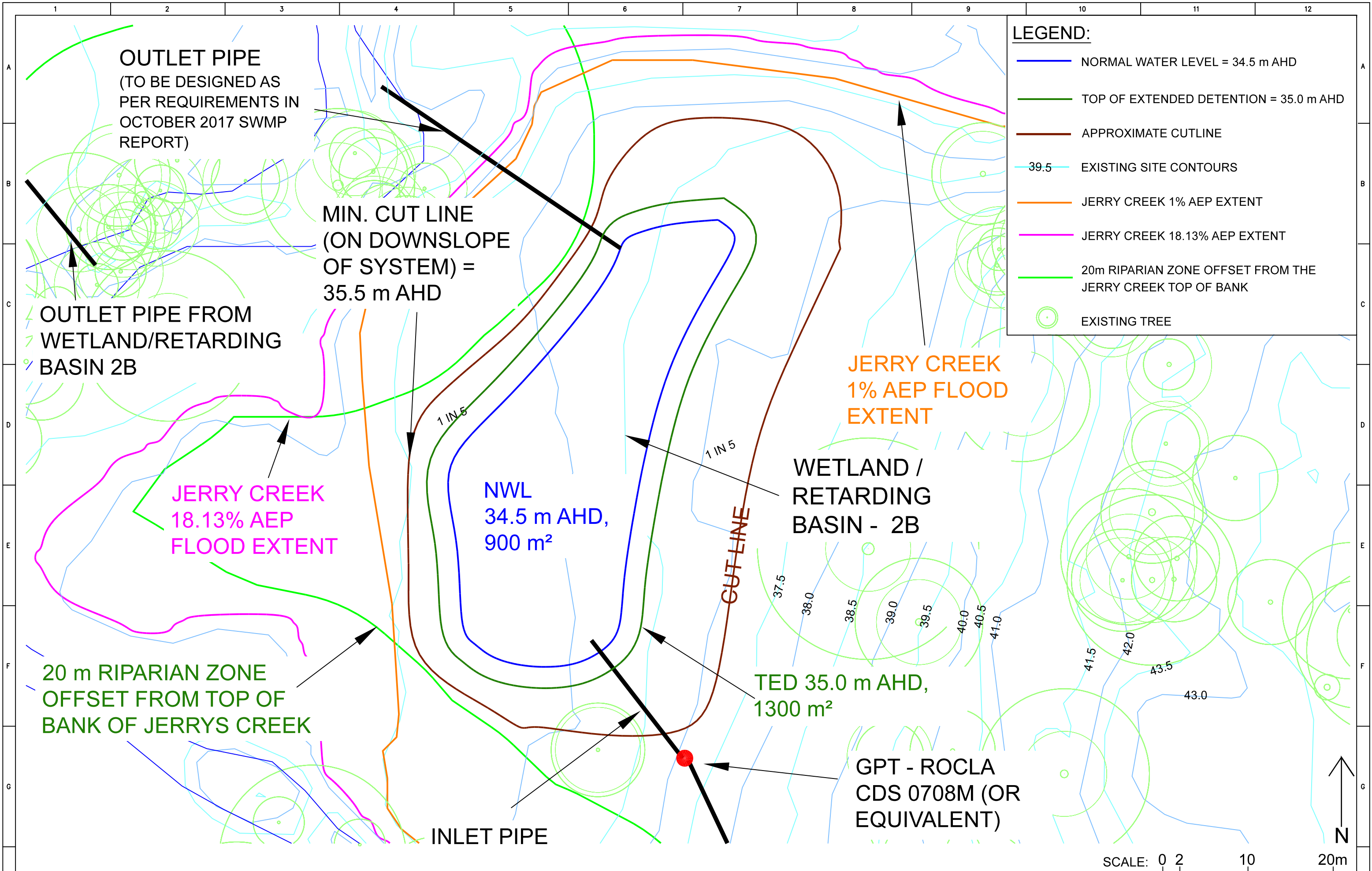
JERRY CREEK 18.13% AEP FLOOD EXTENT

INLET PIPE

JERRY CREEK 1% AEP FLOOD EXTENT

SCALE: 0 2 10 20m





LEGEND:

- NORMAL WATER LEVEL = 34.5 m AHD
- TOP OF EXTENDED DETENTION = 35.0 m AHD
- APPROXIMATE CUTLINE
- 39.5 EXISTING SITE CONTOURS
- JERRY CREEK 1% AEP EXTENT
- JERRY CREEK 18.13% AEP EXTENT
- 20m RIPARIAN ZONE OFFSET FROM THE JERRY CREEK TOP OF BANK
- EXISTING TREE

OUTLET PIPE
(TO BE DESIGNED AS PER REQUIREMENTS IN OCTOBER 2017 SWMP REPORT)

MIN. CUT LINE
(ON DOWNSLOPE OF SYSTEM) = 35.5 m AHD

OUTLET PIPE FROM WETLAND/RETARDING BASIN 2B

JERRY CREEK 18.13% AEP FLOOD EXTENT

20 m RIPARIAN ZONE OFFSET FROM TOP OF BANK OF JERRYS CREEK

NWL 34.5 m AHD, 900 m²

WETLAND / RETARDING BASIN - 2B

TED 35.0 m AHD, 1300 m²

GPT - ROCLA CDS 0708M (OR EQUIVALENT)

INLET PIPE

JERRY CREEK 1% AEP FLOOD EXTENT

SCALE: 0 2 10 20m

| | | | |
|-------------------|----|-----------------|--|
| DRAFT FOR COMMENT | | 11 OCTOBER 2017 | |
| REVISION | BY | DATE | |
| | | | |

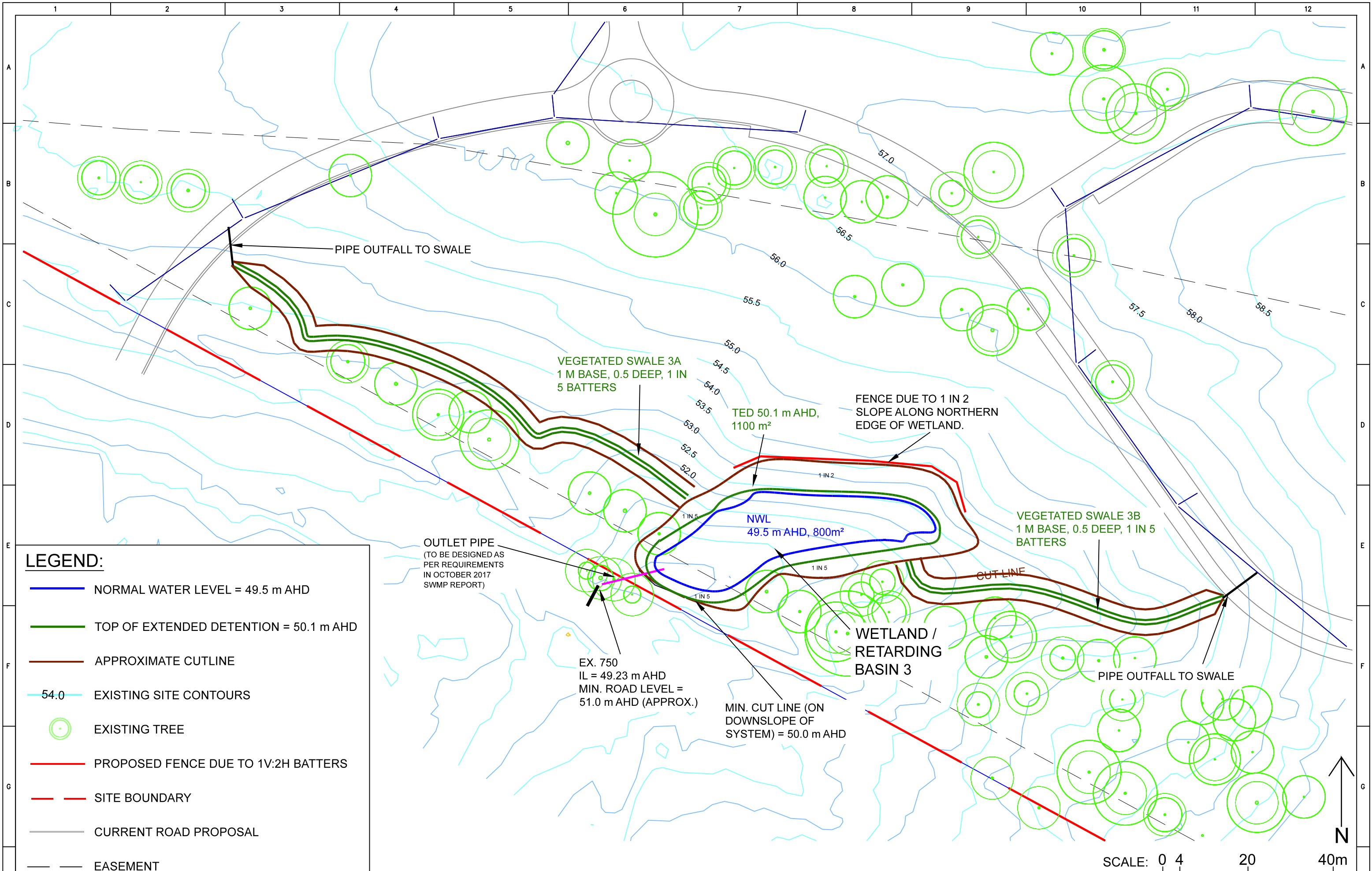


| | | | |
|---------------|-------------|-----------|---|
| DESIGNED | Michael Mag | PLAN REF. | # |
| CHECKED | Valerie Mag | | |
| AUTHORISED BY | | | |

Website: www.stormywater.com.au
 Email: stormywater@optusnet.com.au
 Phone: (03) 8555 9669
 ABN: 95 656 703 998

WALLACIA CEMETERY
 STORMWATER MANAGEMENT PLAN
 WETLAND/RETARDING BASIN 2B
 CONCEPT DESIGN

| |
|------------------------|
| SCALE: AS SHOWN |
| SHEET 5 OF 8 |
| DRAWING No. 1774/SWS/5 |



LEGEND:

- NORMAL WATER LEVEL = 49.5 m AHD
- TOP OF EXTENDED DETENTION = 50.1 m AHD
- APPROXIMATE CUTLINE
- 54.0 EXISTING SITE CONTOURS
- EXISTING TREE
- PROPOSED FENCE DUE TO 1V:2H BATTERS
- - - SITE BOUNDARY
- CURRENT ROAD PROPOSAL
- - - EASEMENT

OUTLET PIPE
(TO BE DESIGNED AS PER REQUIREMENTS IN OCTOBER 2017 SWMP REPORT)

VEGETATED SWALE 3A
1 M BASE, 0.5 DEEP, 1 IN 5 BATTERS

TED 50.1 m AHD,
1100 m²

FENCE DUE TO 1 IN 2 SLOPE ALONG NORTHERN EDGE OF WETLAND.

NWL
49.5 m AHD, 800m²

VEGETATED SWALE 3B
1 M BASE, 0.5 DEEP, 1 IN 5 BATTERS

WETLAND / RETARDING BASIN 3

EX. 750
IL = 49.23 m AHD
MIN. ROAD LEVEL = 51.0 m AHD (APPROX.)

MIN. CUT LINE (ON DOWNSLOPE OF SYSTEM) = 50.0 m AHD

SCALE: 0 4 20 40m



| | | | |
|-------------------|------|-----------------|--|
| DRAFT FOR COMMENT | | 11 OCTOBER 2017 | |
| REVISION | DATE | | |
| 1 | | 2 | |



| | | | |
|---------------|-------------|-----------|---|
| DESIGNED | Michael Mag | PLAN REF. | # |
| CHECKED | Valerie Mag | | |
| AUTHORISED BY | | | |

Website: www.stormywater.com.au
 Email: stormywater@optusnet.com.au
 Phone: (03) 8555 9669
 ABN: 95 656 703 998

WALLACIA CEMETERY
 STORMWATER MANAGEMENT PLAN
 WETLAND/RETARDING BASIN 3
 CONCEPT DESIGN

| |
|------------------------|
| SCALE: AS SHOWN |
| SHEET 6 OF 8 |
| DRAWING No. 1774/SWS/6 |

RETAINING WALL TO CONTAIN BIORETENTION FILTER AND FLOOD STORAGE ABOVE FILTER BASE.
FLOOD CONTROL OUTLET PIPE TO BE DESIGNED AS PER REQUIREMENTS IN OCTOBER 2017 SWMP REPORT

PERFORATED PVC OUTLET TO EXISTING SURFACE IN GULLY = 42.3 m AHD

BIORETENTION FILTER
AREA = 80 m²
100 mm SCREENINGS, 100 mm FINE SAND
1.0 m FILTER AT DOWNSTREAM END, 0 m AT UPSTREAM END.
AVERAGE FILTER DEPTH = 0.5 m (FOR MUSIC)
FILTER LEVEL = 43.5 m AHD
EXTENDED DETENTION DEPTH = 300mm

BIORETENTION BASIN/RETARDING BASIN 4A

VEGETATED 1 IN 3 BATTERS AROUND BIORETENTION SYSTEM

VEGETATED SWALE 4A
RETAIN EXISTING VALLEY FORM.
VEGETATED 2 m BASE WITH DENSE SEDGES AND RUSHES.
EXISTING BATTERS (1 IN 5 (MIN) TYPICALLY).
0.5 m MIN DEPTH.
PLANTED IN LINE WITH RIPARIAN ZONE REQUIREMENTS TO A TOTAL SWALE WIDTH OF 10 METRES.

RETAINING WALL TO CONTAIN BIORETENTION FILTER AND FLOOD STORAGE ABOVE FILTER BASE.
FLOOD CONTROL OUTLET PIPE TO BE DESIGNED AS PER REQUIREMENTS IN OCTOBER 2017 SWMP REPORT

PERFORATED PVC OUTLET TO EXISTING SURFACE IN GULLY = 43.0 m AHD









BIORETENTION BASIN 4B

1 IN 5 BATTERS AROUND BIORETENTION SYSTEM

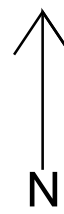
BIORETENTION FILTER
AREA = 30 m²
100 mm SCREENINGS, 100 mm FINE SAND
1.0 m FILTER AT DOWNSTREAM END, 0 m AT UPSTREAM END.
AVERAGE FILTER DEPTH = 0.5 m (FOR MUSIC)
FILTER LEVEL = 44.2 m AHD
EXTENDED DETENTION DEPTH = 300mm

VEGETATED SWALE 4B
RETAIN EXISTING VALLEY FORM.
VEGETATED 2 m BASE WITH DENSE SEDGES AND RUSHES.
0.5 m DEEP (MIN).
EXISTING BATTERS (1 IN 5 (MIN) TYPICALLY) PLANTED IN LINE WITH RIPARIAN ZONE REQUIREMENTS TO A TOTAL SWALE WIDTH OF 10 METRES.

LEGEND:

-  BIORETENTION SYSTEM FILTER MEDIA
-  RETAINING WALL TO CONTAIN BIORETENTION FILTER
-  EXTENT OF SWALE BATTER
-  EXISTING SITE CONTOURS (0.5m)
-  JERRY CREEK 1% AEP EXTENT
-  JERRY CREEK 18.13% AEP EXTENT
-  EXISTING TREE
-  SITE BOUNDARY

SCALE: 0 2 10 20m



| | | | |
|-------------------|------|-----------------|--|
| DRAFT FOR COMMENT | | 11 OCTOBER 2017 | |
| REVISION | DATE | | |



| | | | |
|---------------|-------------|-----------|---|
| DESIGNED | Michael Mag | PLAN REF. | # |
| CHECKED | Valerie Mag | | |
| AUTHORISED BY | | | |

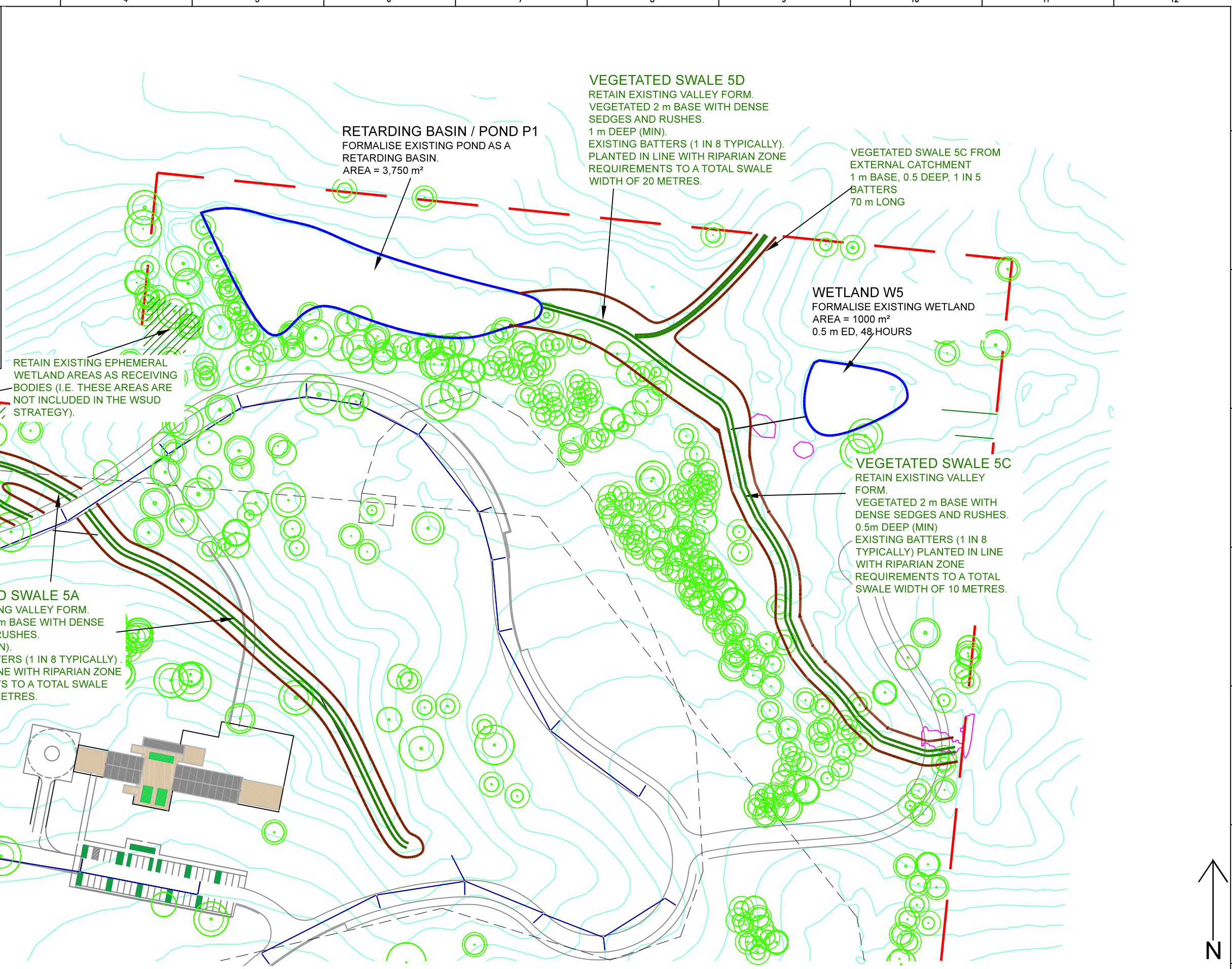
Website: www.stormywater.com.au
Email: stormywater@optusnet.com.au
Phone: (03) 8555 9669
ABN: 95 656 703 998

WALLACIA CEMETERY
STORMWATER MANAGEMENT PLAN
BIORETENTION BASINS 4A & AB
CONCEPT DESIGN

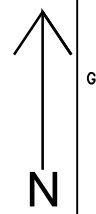
SCALE: AS SHOWN
SHEET 7 OF 8
DRAWING No.
1774/SWS/7

LEGEND:

- NORMAL WATER LEVEL
- = VEGETATED SWALE BASE
- EXTENT OF SWALE BATTER
- EXISTING SITE CONTOURS (1m)
- EXISTING TREE
- - - SITE BOUNDARY
- / / / EXISTING EPHEMERAL WETLAND (TO BE RETAINED)
- EASEMENT



SCALE: 0 8 40 80m



| | | | |
|-------------------|------|-----------------|--|
| DRAFT FOR COMMENT | | 11 OCTOBER 2017 | |
| REVISION | DATE | | |



| | | | |
|---------------|-------------|-----------|---|
| DESIGNED | Michael Mag | PLAN REF. | # |
| CHECKED | Valerie Mag | | |
| AUTHORISED BY | | | |

Website: www.stormywater.com.au
 Email: stormywater@optusnet.com.au
 Phone: (03) 8555 9669
 ABN: 95 656 703 998

WALLACIA CEMETERY
 STORMWATER MANAGEMENT PLAN
 CATCHMENT 5 ASSETS
 CONCEPT DESIGN

| |
|------------------------|
| SCALE: AS SHOWN |
| SHEET 8 OF 8 |
| DRAWING No. 1774/SWS/8 |