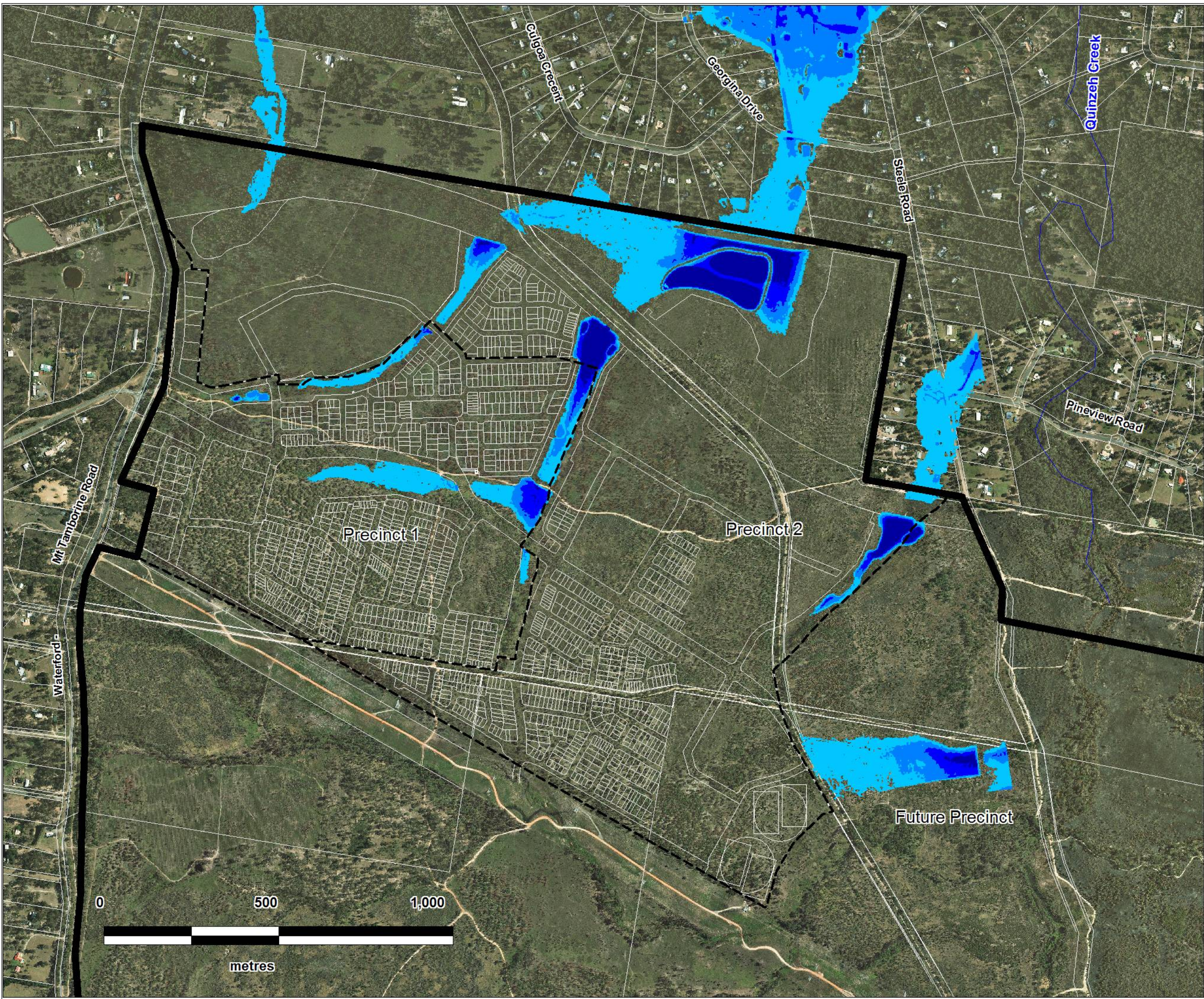




LEGEND

Boundaries

-  Yarrabilba Site
-  Precinct

Depth (m)

-  < 0.5
-  0.5 - 1.0
-  1.0 - 1.5
-  > 1.5

Post-development Mitigated
10yr ARI Flood Inundation

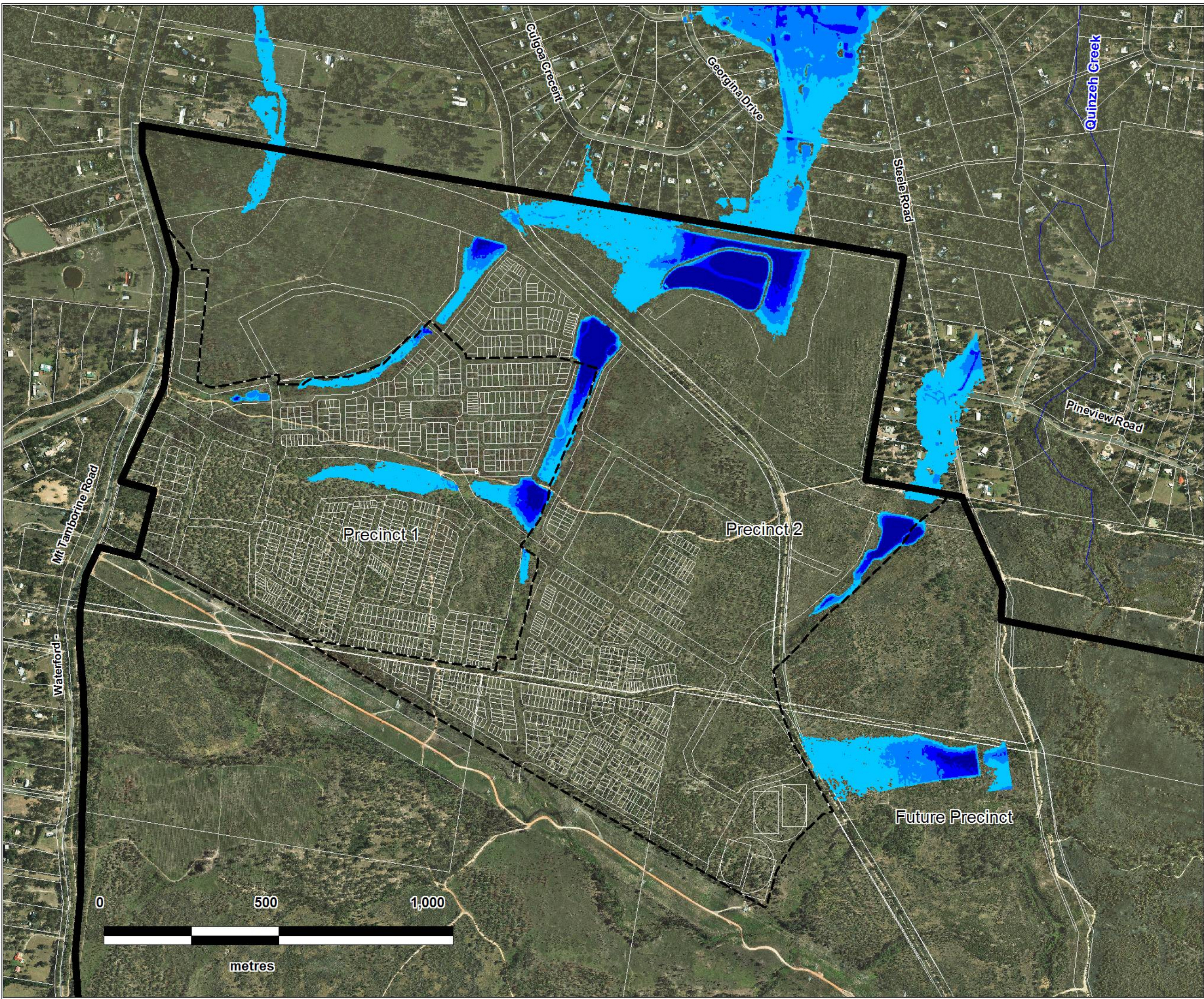
Yarrabilba Precinct 1 and 2
Stormwater Management Plan



SCALE:
1 : 1000

Date:
2 December 2013

Client:
Lend Lease



LEGEND

Boundaries

-  Yarrabilba Site
-  Precinct

Depth (m)

-  < 0.5
-  0.5 - 1.0
-  1.0 - 1.5
-  > 1.5

Post-development Mitigated
20yr ARI Flood Inundation

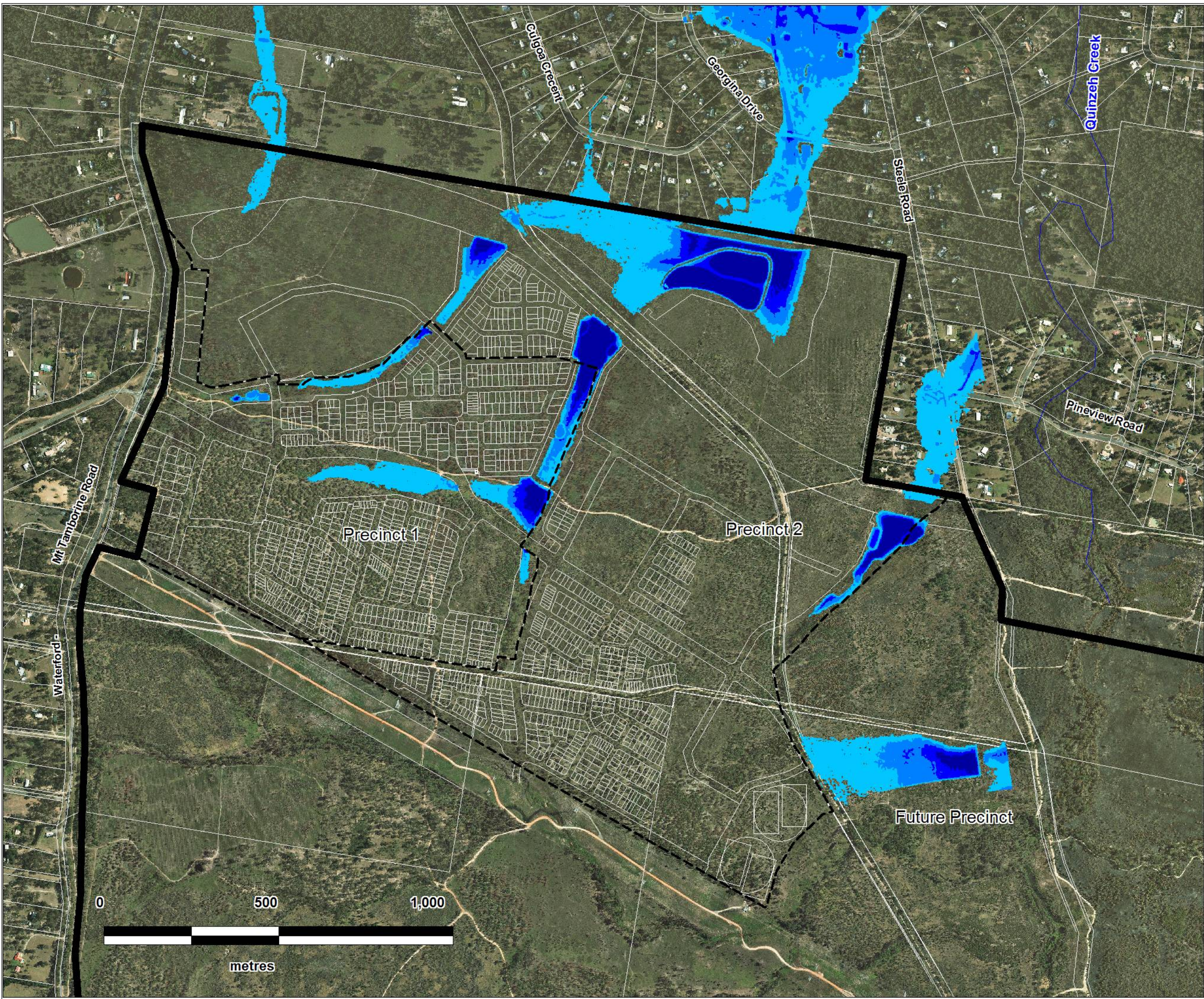
Yarrabilba Precinct 1 and 2
Stormwater Management Plan



SCALE:
1 : 1000

Date:
2 December 2013

Client:
Lend Lease



LEGEND

Boundaries

-  Yarrabilba Site
-  Precinct

Depth (m)

-  < 0.5
-  0.5 - 1.0
-  1.0 - 1.5
-  > 1.5

Post-development Mitigated
50yr ARI Flood Inundation

Yarrabilba Precinct 1 and 2
Stormwater Management Plan



SCALE:
1 : 1000

Date:
2 December 2013

Client:
Lend Lease

LEGEND

Boundaries

- Yarrabilba Site
- - - Precinct

Depth (m)

- < 0.5
- 0.5 - 1.0
- 1.0 - 1.5
- > 1.5

Post-development Mitigated
100yr ARI Flood Inundation

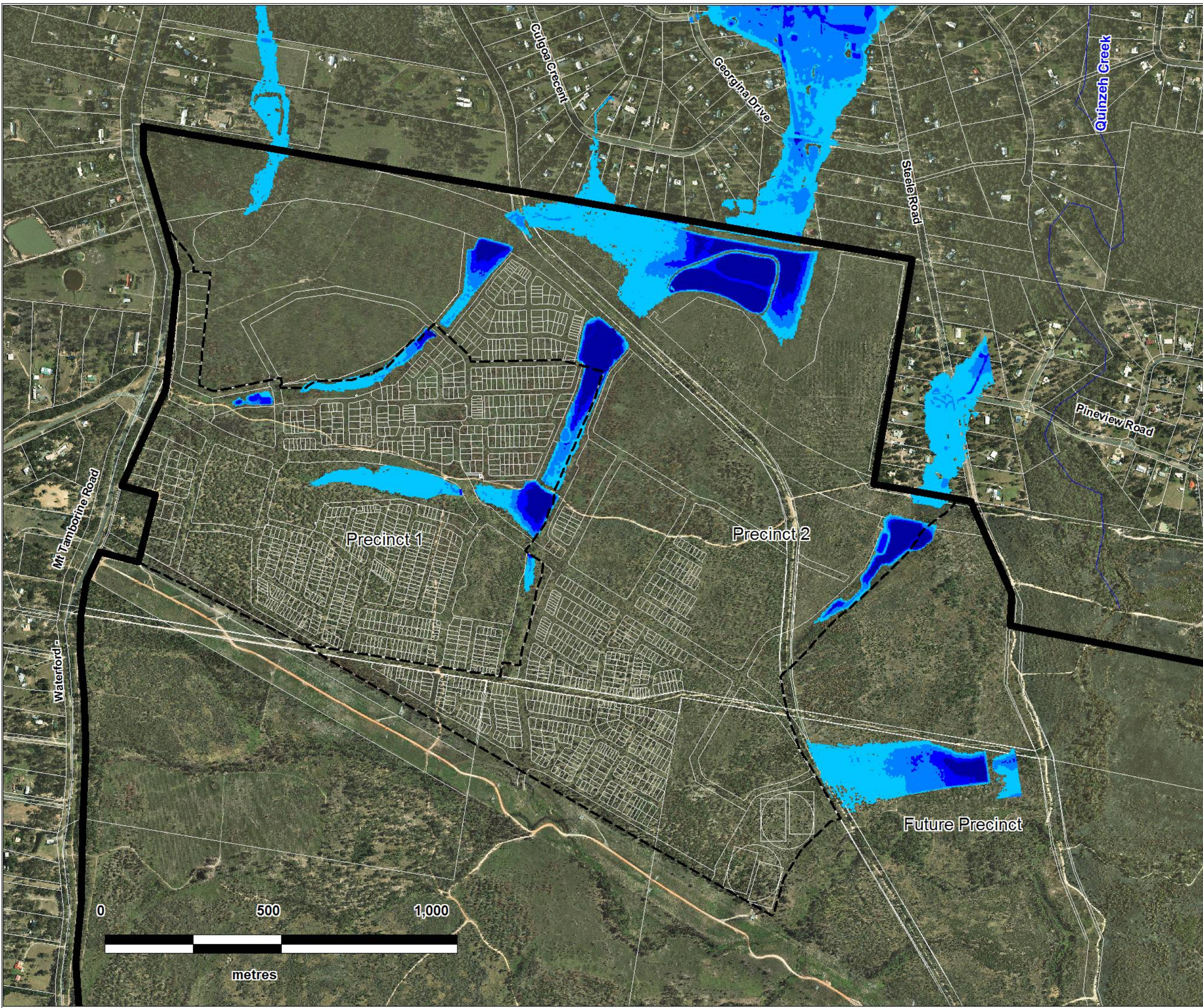
Yarrabilba Precinct 1 and 2
Stormwater Management Plan



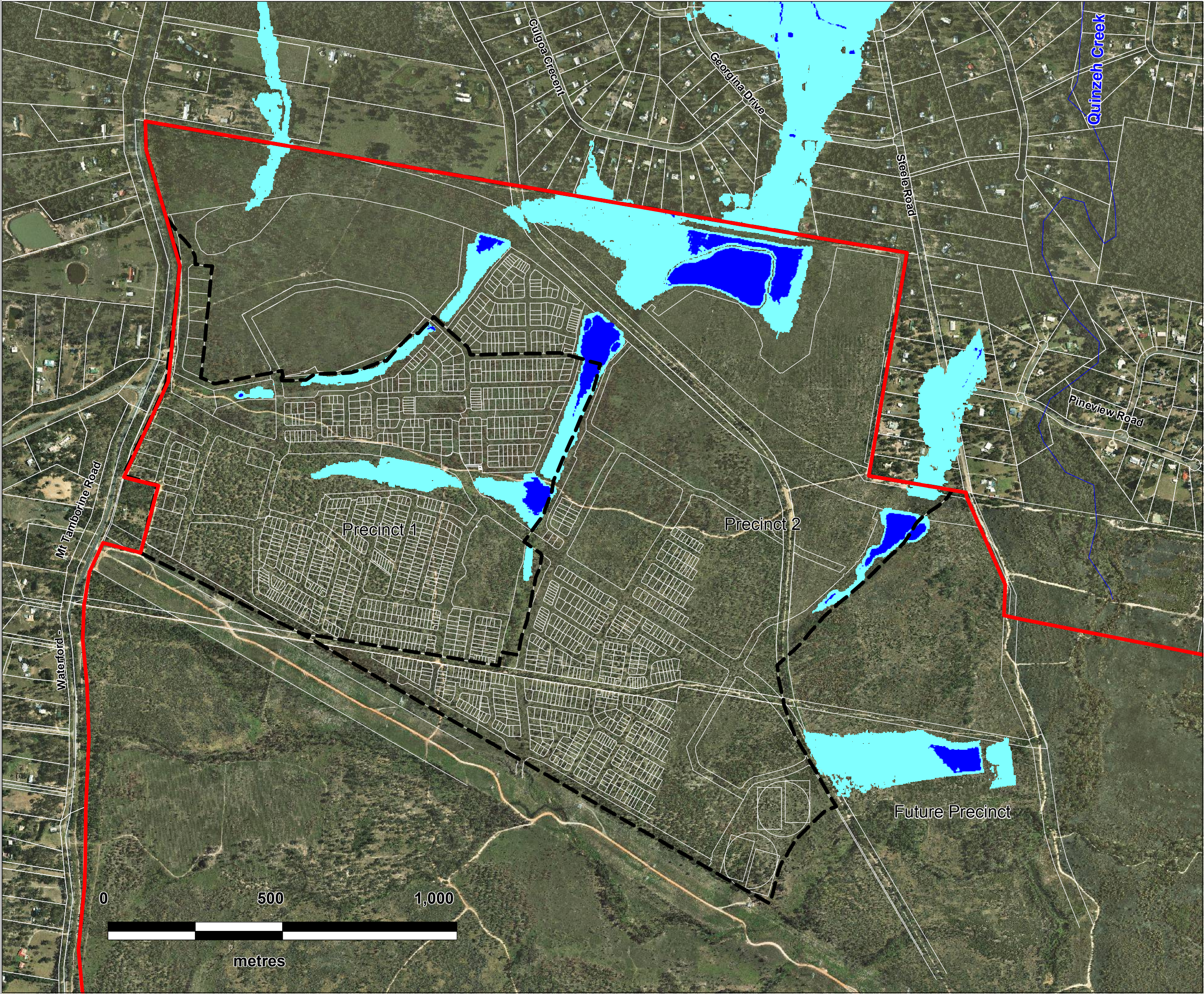
SCALE:
1 : 1000

Date:
2 December 2013

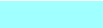
Client:
Lend Lease



APPENDIX E: FLOOD DEPTH SAFETY MAPPING



LEGEND

- Boundaries**
-  Yarrabilba Site
 -  Precinct
- Depth (m)**
-  < 1.2
 -  >= 1.2

**Post-development Mitigated
20yr ARI Flood Detention
Safety Depths**

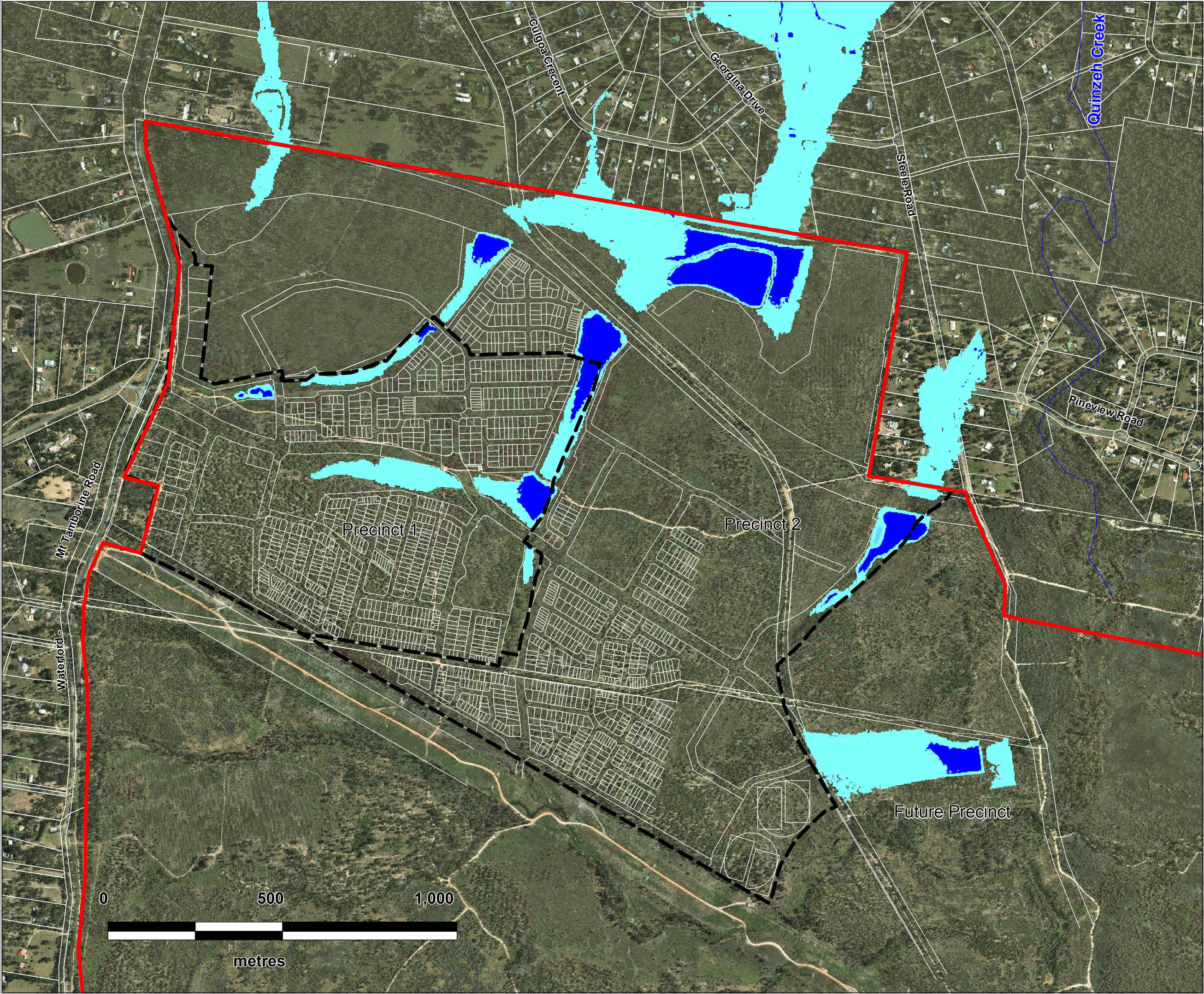
**Addendum to
Yarrabilba Precinct 1 and 2
Stormwater Management Plan**



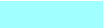
SCALE:
1 : 1000

Date:
18 February 2014

Client:
Lend Lease



LEGEND

- Boundaries**
-  Yarrabilba Site
 -  Precinct
- Depth (m)**
-  < 1.2
 -  >= 1.2

Post-development Mitigated
100yr ARI Flood Detention
Safety Depths

Addendum to
Yarrabilba Precinct 1 and 2
Stormwater Management Plan



SCALE:
1 : 1000

Date:
18 February 2014

Client:
Lend Lease

APPENDIX F: ENGENY INITIAL LOSS ASSESSMENT

From: Mark Page [mailto:Mark.Page@engeny.com.au]
Sent: Friday, 7 February 2014 5:20 PM
To: Rob.Ball@lendlease.com; Shaun Leinster; Nic Smith
Cc: Khairul Alam (khairulalam@logan.qld.gov.au); (KamalRanaweera@logan.qld.gov.au); Michael Howe
Subject: Quinzeh Ck Sensitivity Analysis - Initial Loss

Rob/Shawn,

As requested, Engeny has undertaken a sensitivity analysis on the initial loss (IL) for the Quinzeh Creek RAFTS model whereby the IL has been adjusted for the January 2013 event from 38 mm (area weighted loss) to 5 mm, 30 mm and 49 mm for the entire catchment. As expected, the IL has little impact on catchment flows for the 2013 event including peak flows and associated timing of peaks. An increase in peak flow of 0.13 % was observed at the downstream extent of the model (near Quinzeh Ck Rd) when comparing modelled flows for the 5mm IL and 49mm IL scenarios. This analysis confirms that the initial rainfall loss has negligible impact on results for the historical 2013 flood event. A summary of results is provided below and the reporting locations are shown in the attached figure.

Summary of Results

Location	Existing (IL 38mm) Peak Flow (m ³ /s)	Time of Peak	Sensitivity (IL 5mm) Peak Flow (m ³ /s)	Time of Peak	Sensitivity (IL 30mm) Peak Flow (m ³ /s)	Time of Peak	Sensitivity (IL 49mm) Peak Flow (m ³ /s)	Time of Peak
Georgina Dr	10.46	27/01/2013 15:00	10.47	27/01/2013 15:00	10.47	27/01/2013 15:00	10.46	27/01/2013 15:00
Pineview Rd	2.67	27/01/2013 15:00	2.67	27/01/2013 15:00	2.66	27/01/2013 15:00	2.67	27/01/2013 15:00
Confluence DS Pineview Rd	72.29	27/01/2013 18:00	72.39	27/01/2013 18:00	72.39	27/01/2013 18:00	72.26	27/01/2013 18:00
Quinzeh Ck Confluence	96.47	27/01/2013 18:00	96.57	27/01/2013 18:00	96.57	27/01/2013 18:00	96.45	27/01/2013 18:00

Please don't hesitate to contact me should you have any queries.

Regards,

Mark Page

Operations Manager | Senior Water Engineer
Director



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M 0488 058 237

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